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CONCEPT BASED ERP FOR A HUMAN RESOURCE MANAGEMENT
(TEXTILE GARMENT MANUFACTURING INDUSTRY)

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BONAFIDE CERTIFICATE

Certified that this project report entitled "**Implementation of Concept Based ERP for Human Resource Management**" is the bonafide work of

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The duration of the project was from Dec 2008 to April 2009 his performance during the period was good.

Our concern wish to his best future.

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ABSTRACT

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The project titled as **Implementation of Concept Based Erp for a Human Resource Management** is basically used to develop own software in the region of HR Management. It plays a vital role in the day – to – day operations of any business. Whether are simply look an effective way of automate employee data, or require a more sophisticated HR Management system. The project will offer smart, robust solution that speed access to information and enhance strategic contributions by transforming raw HR data into usable business intelligence, supporting executive decision making and enabling the organization to adapt more quickly in a changing, competitive environment.

Managing human resources in today's complex organizational, legal, and economic environments requires professionals with special skills and knowledge in such areas as employee selection, training, appraisal and motivation, compensation, benefit programs, employment law and policy, and labour relations. The HRD activities like recruitment, training program, medical checkup, salary administration, and project allotment and scheduling are to be automated.

The goal of this proposed system is to reduce the most of the manual work of HRM division of an organization, and it also has come potential benefits such as to minimize the cost, and increase the performance and service.

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CHAPTER 1

INTRODUCTION

CHAPTER 1

1. INTRODUCTION

1.1 Project Overview

The project titled as Implementation of concept Based ERP for a Human Resource Management System is basically used to develop our own software in the region of hr management i.e. mainly regarding the job seekers. Human resources management plays a vital role in the day-to-day operations of any business. Whether you are simply looking for an effective way to automate employee data, or you require a more sophisticated hr management system. The project offers smart, robust solutions that speed your access to information and enhance your strategic contributions by transforming raw hr data into usable business intelligence; supporting executive decision making and enabling your organization to adapt more quickly in a changing, competitive environment.

Managing human resources in today's complex organizational, legal, and economic environments requires professionals with special skills and knowledge in such areas as employee selection, training, appraisal and motivation, compensation, benefits programs, employment law and policy, and labor relations. The HRD activities like recruitment, training program, medical checkup, salary administration, project allotment and scheduling are automated here.

The systems helps the HRD in keeping track of the employee's personal details which includes qualification, date of joining the cadre in which they have joined, their designation, loans if they have applied for, their medical history. Our system maintains employee appraisal details, travel requests, project allotment and scheduling details.

Enterprise Resource Planning systems have been considered as the most important development in the corporate use of information technology in the 1990's. Major business drivers behind ERP implementations have been the various technical, financial, operational and strategic benefits these systems promise. expected benefits of ERP systems include, for instance, quicker information response time, increased interaction across the enterprise, improved order management cycle, reduced financial and operating costs, improved interaction with customers and suppliers, improved on-time delivery and cash-management, and so forth. However, these benefits are often difficult to meet.

Implementing an ERP system is usually an extensive and costly process involving substantial amount of human and other resources, integrating different interest groups, managing the time pressure and facing other challenges. In fact, ERP implementation failure rate is high. A large amount research has been done on factors that affect the implementation process to identify the critical success factors that are necessary for successful ERP implementation. These factors usually include top management support, project champions, vendor relations, user training, use of consultants, interdepartmental collaboration and communication and the like. Many researchers have listed people factors in their critical success factors list and have agreed that managing human resources in an appropriate manner is a key for a success in ERP implementation projects. Also, launching an ERP project results an inevitable change process, which accordingly brings in many behavioral and managerial

Challenges such as user resistance, management resistance, employee's lack of motivation, high turnover of key personnel, lack of expertise, insufficient human assets, lack of training and so forth. These people challenges are considered to be more difficult to manage than the technical difficulties encountered. Likewise, many academics suggest that the reason why large number of software implementation projects fails is because management is paying too little attention to human factors. In brief, in order to succeed in an ERP implementation project human needs and concerns have to be addressed.

Today, human resources management is being renewed in organizations and becoming one of the fundamental functions of the project management. HRM has changed from an inactive and problem-solving role to a strategic, focusing on the retention and development of the best human resources. Traditional HR practices consisted of activities such as payroll, hiring activities, records management, reporting and termination activities and similar. Nowadays, HRM takes more of a full service role providing employee support beyond pension planning and career development. With the arrival of ERP systems, HR functions became fully integrated with the operations side of the business. However, the research on HRM in the context of ERP is relatively new and not many studies have been done on the topic.

1.2 COMPANY PROFILE

1. Adarsh Knit Wear is one of the largest manufacturers and exporters of knit garments from tirupur.
2. The company is a government recognized export house.
3. Adarsh Knit Wear takes its responsibilities seriously and works diligently to balance its obligations to employees, clients and communities.

INFORMATIONS:

Manufacturing Details:

Factory Capacity	:	7000 Sq.Feet
No. of Workers	:	More than 200 workers
Fabric Types	:	Single Jersey, Double Jersey, Auto Stripes, Rib Auto Stripes, Engineered tripes, Structures Fabrics, Polyester Blends, Viscose Mixed Cotton Polyamide, Mercerized, Loop Knits and more.
Sewing Machines	:	200 Machines
Types of machines	:	Flat Lock Over Lock Singer
Cutting Machines	:	Band Knife machines
Pressings	:	Steam Press Tables

Other Facilities:

- Imported Embroidery Machines and Sequence Machines.
- Imported Knitting Machines-40 Nos.
- Well Equipped Printing Factory.

Future Plan:

- To increase the capacity of dyeing with soft flow and HTHP machines
- Considerable increase in Knitting machines

ASSOCIATES:

1. Trailer Fashions,
2. Warrior Garments,
3. Yoke jay Garments.

1.3 ERP (Enterprise Resource Planning)

Enterprise resource planning (ERP) systems have become increasingly popular in modern business operations over the last decade. These software systems have been a matter of interest for various organizations and researchers reasons being the benefits promised and problems encountered in achieving those. This chapter provides a brief introduction to what ERP is its major vendors and characteristics, reviews reasons for implementing an ERP system, discusses the advantages of ERP and shortly reviews the ERP implementation process.

- ERP
- Reasons for the companies to go ERP
- Benefits of ERP

ERP

Enterprise Resource Planning (ERP) is a computer-based system designed to place companies' major activity areas: planning, production, human resource management and customer service under an Umbrella. ERP system is a software package of different modules such as fixed assets management, controlling, financial accounting, manufacturing, human resources, planning and development and so forth. Each module is business process specific. Generally companies choose one ready-made package available for their industry but it is also common to select the modules that best meet their needs. There are hundreds of ERP vendors available on the market; however, this field is mainly dominated by J.D. Edwards, Baan, PeopleSoft, SAP and Oracle

The major characteristics of ERP systems are: a packaged software system designed for the client environment, the integration between the modules and across entire organization, access to data in real time, data storing and retrieving processes in an enterprise-wide database, and management and analysis functionalities. Moreover, ERP systems are expected to have additional characteristics such as support for multiple currencies and languages, which is critical for multinational companies, and support for specific industries, for instance, oil, gas, banking, health care and textile industries

Reasons for the MNC to go ERP

Initially, in the mid- and late- 1990s, Y2K compliance has been a major concern for many companies as well as the wish to replace the existing and poor quality systems. However,

the major reasons driving companies to choose ERP are related to improve firms performance and decision making, to reduce labor costs, bureaucracy and errors.

Other reasons are: pressure from the side of the competitors, business partner requirements wishing to receive faster service, integration between units, and organizational standardization across different locations and globalization of businesses. Acquisitions and mergers between the units are forcing companies to change and function as a one system. However, for each companies the motivations for implementing ERP are different as well as their priority order depends from the nature of the projects. has grouped the reasons into four types of categories: technology, business practices, strategic and competitive. Holland et al (1999) have recognized three main dimensions: technical, operational and strategic. Some studies narrow the reasons down even to broader groups: technological and business performance. Based on the literature, the foremost reasons that have caused a fast growth in the use of ERP systems

can be summarized as follows:

• **Technical**

- A need for a common platform and replacement of an existing IT infrastructure
- An incompatibility of several information systems

• **Operational**

- Process improvement
- Data visibility
- Operating cost reduction

• **Strategic**

- Globalization of business
- The growth of an enterprise and a focus on standardization of processes
- Enhance firm's performance and decision making

Benefits of ERP

According to the literature, ERP systems implementations create the following benefits

For the companies:

• Improves the firm's performance

• Eliminates inefficient manual processes

• Provides integrated, enterprise wide common tools and processes

• Reduces the costs by improving the enterprise efficiency through computerization

• Includes improvements in logistics, production scheduling, customer service and ustomer responsiveness

• Provides enterprise-wide data visibility, reporting and decision support

• Contains the ability to manage the extended enterprise of suppliers, alliances and customers as an integrated whole.

1.4 HRMS (HUMAN RESOURCE MANAGEMENT SYSTEM)

The Human Resources Management (HRM) function includes a variety of activities, and key among them is deciding what staffing needs you have and whether to use independent contractors or hire employees to fill these needs, recruiting and training the best employees, ensuring they are high performers, dealing with performance issues, and ensuring your personnel and management practices conform to various regulations. Activities also include managing your approach to employee benefits and compensation, employee records and personnel policies. Usually small businesses (for-profit or nonprofit) have to carry out these activities themselves because they can't yet afford part- or full-time help. However, they should always ensure that employees have -- and are aware of -- personnel policies which conform to current regulations. These policies are often in the form of employee manuals, which all employees have.

Note that some people distinguish a difference between between HRM (a major management activity) and HRD (Human Resource Development, a profession). Those people might include HRM in HRD, explaining that HRD includes the broader range of activities to develop personnel inside of organizations, including, eg, career development, training, organization development, etc.

There is a long-standing argument about where HR-related functions should be organized into large organizations. The HRM function and HRD profession have undergone tremendous change over the past 20-30 years. Many years ago, large organizations looked to the "Personnel Department," mostly to manage the paperwork around hiring and paying people. More recently, organizations consider the "HR Department" as playing a major role in staffing,
training and helping to manage people so that people and the organization are performing at maximum capability in a highly fulfilling manner.

training and helping to manage people so that people and the organization are performing at maximum capability in a highly fulfilling manner.

The HR center is a powerful application designed to allow companies to streamline their human resource tasks and manager their employees more efficiently

Employee and Company Information, Employee Time, Attendance, and Leave Request

The HR Center includes a comprehensive employee information database, where employers can information, work information, beneficiary information, and more for each employee. It comes standard with employee self-service access allowing employees to update their personal information, request time off or input their daily timesheet entries. It also has role –based access level control that is functionally based on whether a user is an employee, a manager, or an HR administrator. With HR center managers and HR administrators can manage a track

1.5 THE MAIN OBJECTIVE OF THE PROJECT

The aim of this project is to investigate the importance of human resources (HR) aspects in Enterprise Resource Planning (ERP) Systems implementations projects and study whether their significance varies in the case of successful implementations.

The main objective of this project is to computerize all the transactions of the company which makes it easier to perform day to day operations of HRD. It will reduce the amount of time spent by the employees and to retrieve, search and store data related to various activities and status. It also provides a convenient, efficient and consistent means to view all the details and all the transactions.

Objectives of this system are,

- ✓ Receiving resumes from the candidates.
- ✓ Conduction interview to the candidates.
- ✓ Selecting the candidates.
- ✓ Maintaining the employee details.
- ✓ Conducting training to the employee.
- ✓ Conducting medical test to the employee.
- ✓ Salary and loan details of the employee
- ✓ Designation of details of the employee.
- ✓ Generating reports.

CHAPTER 2

LITERATURE REVIEW

CHAPTER 2

LITERATURE SURVEY

Systems and e-commerce capabilities. ERP installation is presented as a project, and project features specific to ERP are discussed as well as project management tools, examples of real applications demonstrate every concept in practice this paper attempts to draw connections between the extensive literature on management and leadership in Textile Garment Industry integration. Studies show the problematic relationship of management and leadership practice with meaningful Garment manufacturing integration (MacDonald 2006). The paper will distinguish transformative integration from other levels of Garment Industry as they apply not only to classroom settings, but also to Industry structure. Some of the current literature reveals that many garment industries are not enjoying long-term meaningful reforms in the area of Garment industry. This paper will reflect on the literature to identify some of the possible explanations for this lack of success.

Enterprise Resource Planning (ERP) systems have become very important elements of garment manufacturing industry in the past decade. Olson provides a managerial perspective of systems with the technical definitions and studies of actual ERP uses for balance. Issues include: available support in the decision to adopt an ERP; human resource management system and its role in ERP systems; the different ways in which ERP systems can be adopted (Employee details, complete salary details , and many combinations in between); the role of training in successful ERP implementation; maintenance of ERP systems and bolt on products for intelligent

2.1 Enterprise Engineering and Integration Projects through Training Based on Multimedia

The improvement of Garment enterprises relies on the success of enterprise engineering and integration of garment industry. Usually, these industries are complex and difficult to carry out. Human resources are, without doubt, one of the most essential key points in the success of such industries. Therefore, the role played by both internal staff and external consultants and professionals needs to be analyzed and, based on this analysis, enabling methods and tools should be provided to the people involved in a industry. This paper analyses some of the human aspects related to the application of engineering and

efficiency, accuracy and reliability of enterprise projects. Based on the IE-GIP (Enterprise Integration-Business Processes Integrated Management, acronyms in Spanish) Proposal and its embedded CIMOSA (Computer Integrated Manufacturing for Open Systems Architecture) Models, these principles were applied and validated in a tile enterprise supported by a multimedia computer-training tool, called CILT (CIMOSA Learning Tool for Enterprise Integration).

2.2 Human resource management aspects of business reengineering: a survey

Examines the relationship between business process re-engineering (BPR) and human resource management. A number of propositions relating to aspects of human resource management are derived from the literature, and examined by interviewing senior managers in UK organisations where business process re-engineering projects had either been completed or were still in progress.

The propositions are analysed under four major headings:

Structure and culture,

The role of managers,

Team working, and

Reward system.

The BPR principles on the management of human resources as stated in the literature seem to find a full application in most of the organisations investigated. However,

there were two exceptions to the expectations in the literature.

The first was that there would be a change to a process-based structure; a change is seen in the majority of cases, but to a matrix style of organisation.

The second was the implication that team-based reward systems would appear; this has only happened in a minority of cases. Overall, for the organisations studied which have undergone BPR, a very clear pattern emerges with respect to human resource management practices.

2.3 STUDY ON HUMAN RESOURCE MANAGEMENT

Normally human resource management systems are those with some records that are maintained by the people work in HR department. They will have some records, which will be manually updated as and when required. This system will in the long prove that it is

inefficient to work with this should be changed to some automated systems, which will cater the needs. The existing will be very formal and slow when we want to create a new set of employees or if we go for creation of a new department also. These draw back combined with those listed below will proved that certainly there is a need for generating some ways which should be used to make it less complex and more user friendly.

This includes

Study,

Designing,

Implementing and

Evaluating information of a system in an organization.

The system study phase involves the preliminary of the current system with the objectives of identifying the problems and defining difficulties of the existing system

The best-fit solution will depend on the strategic goals of ERP initiative, as well as on how these goals fit with the drivers of competition within the industry. Companies looking for efficiency and integration of demand and supply may find the HRMS proposal of their Enterprise Resource Planning (ERP) vendor attractive. On the other hand, companies interested on strategic customer care through their HRMS initiative, may not find ERP vendors proposal compelling and would prefer a best of breeds approach.

This project is a development method for the existing manual or automated systems, leading to the development of specification for a new or modified system. When system analyst approaches an unfamiliar situation there is always a question of when to login the analysis. A dynamic situation may see almost over helming because so many activities are going on.

CHAPTER 3

SYSTEM ANALYSIS & DESIGN

CHAPTER 3

SYSTEM ANALYSIS AND DESIGN

3.1 PROBLEM STATEMENT

System analysis is a development method for the existing manual or automated systems, leading to the development of specification for a new or modified system. When system analyst approaches an unfamiliar situation there is always a question of when to login the analysis. A dynamic situation may see almost over helming because so many activities are going on. Structured analysis allows the analyst to learn about the system or process in manageable and logical way while providing a basis for ensuring that pertinent details got overlooked.

The underlying objective in system analysis is to organize the task associated with requirement determination to provide on accurate and complete understanding of a current situation. From that, requirements are determined that will become the basis for a new modified systems.

The word structure in system analysis means,

1. Specification of what the new system is to accomplish based on the user requirements.
2. Functional hierarchy showing the functions to be performed by the new system and their relationship from each other.
3. Function network which are similar to function hierarchy but they highlight those functions which are common to more than one procedure.
4. List of attributes of the entities – these are the data items which need to be held about each entity(i.e., record)

System analysis is a detailed study of various operations performed by a system and their relation ships within and outside the system. During analysis, data are collected on the available files, decision points and transactions handled by the present system. Interviews, onsite observation and questionnaire are the tools used for system analysis.

The main point's to be discussed in system analysis are:

1. Specification of what the new system is to accomplish based on the user requirements.

2. Functional hierarchy showing the functions to be performed by the new system and their relationship from each other.
3. Function network which are similar to function hierarchy but they highlight those functions which are common to more than one procedure.
4. List of attributes of the entities – these are the data items which need to be held about each entity(i.e., record)

All procedures, requirements must be analyzed and documented in the form of detailed data flow diagrams (DFDs), data dictionary, logical data structures and miniature specifications. System analysis also includes sub – dividing of complex process involving the entire system, identification of data store and manual processes.

3.2 Feasibility analysis

3.2.1Technical feasibility

Technical feasibility takes care of the technical issues tha tare to be tested to see whether to see whether the system is feasible. Technical feasibility analysis makes a comparison between the level of technology available and the technology that is needed for the project. The level of technology available and the technology that is needed for the project. The level of technology is determined by factors such as the software tools available, the machine environment and platform, since, the resource required for the development of the project is already available in the organization, and this project is technically feasible.

3.2.2Economic feasibility

Economic feasibility is a measure of the cost effectiveness of a project or solution. The system has been designed to work for any type of system configuration and platform. Since the effort to develop the product was found to be feasible, the development presents a good investment for the organization. Hence the proposed system is economically feasible.

3.3 Existing system

The system implementing by the company is mandatory and they want to be computerized so that the work becomes easy to implement all the operations without any risk and security also. Even though the system doing the work perfectly, they wants to

complete the whole process very fast and also the same work is not sharing by the employees if the system can do networking the process becomes easy and also the work is shared between the team. So that the work becomes easy and the is shared between them and also security is not there in the mandatory so that networking becomes more secure and work becomes easy for every employee. And also a platform independent makes so easy so that any where the data can be accessed by the company so that the data used by the company is more perfectly used in any platform

3.3.1 Study on Existing System

Normally human resource management systems are those with some records that are maintained by the people work in HR department. They will have some records, which will be manually updated as and when required. This system will in the long prove that it is inefficient to work with this should be changed to some automated systems, which will cater the needs. The existing will be very formal and slow when we want to create a new set of employees or if we go for creation of a new department also. These draw back combined with those listed below will proved that certainly there is a need for generating some ways which should be used to make it less complex and more user friendly.

This includes study, designing, implementing and evaluating information of a system in an organization.

The system study phase involves the preliminary of the current system with the objectives of identifying the problems and defining difficulties of the existing system

3.3.2 Drawbacks of the existing system

- ✓ The existing HRM systems mostly do all the works manually. The manual manipulation of data is a complex task.
- ✓ Even in the automated systems there are less security features put in practice.
- ✓ Maintaining the database is difficult which needs to inconsistency.
- ✓ The time taking for the manual process is more because it depends on the capability of the human.
- ✓ Error finding is difficult for new users.
- ✓ Satisfying more number of customers at a time is not that much of efficient.
- ✓ The cost invested on manpower is high.

3.4 PROPOSED SYSTEMS

The system cuts down the cost of the human resource which is employed to maintain the employee information, in preparing the pay slip for each employee, to maintain the attendance for each employee, in resumes scanning for interview management, to track the undergoing client project, to maintain the client information, to generate the reports for various management levels.

The whole system is solely operated by a single person called administrator. Administrator can enjoy in working of this system, by touching each modules of the system in a highly user friendly manner.

Hence, only one person operates the whole system all information's kept confidential. The HRM systems computerize all the details that are maintained manually. Once the details are feed into the computer there is no need for various people to deal with separate sections. Only a single person is enough to maintain all the reports.

HRM system saves time and maintaining information by reducing the manpower that's need to be employee in various departments for gathering and distribution of information by holding all work in a single stand alone system. Since every information is seen in a single system retrieval of information becomes easier. All the information are tied in a single system, updating of information also becomes very easier.

The drawbacks, which are faced during existing system, can be eradicated by using the proposed system. The main objective of the existing system is to provide a user friendly interface. The system, which is proposed, now computerizes all the details that are maintained manually. Once the details are feed into the computer there is no need for various people to deal with separate section. Only a single person is enough to maintain all the reports.

3.4.1 Study on Proposed System

The system, which is followed at present, is a complete manual system. The system consists of book of Accounts that has to be maintained in all aspects. Printing work of difficult. In the existing system each and every time a reference should be made manually. There are high possibilities to committee error and mistakes, which leads to produce the wrong statement to the management. Report generation is also not an easy task. Another

important draw back of existing system is time factor. It will not help the management to solve the problems in time.

Human Resource Management is one important department in each and every company. Managing the employees is the costly work in all the companies. The aim this system is to cut down the cost of the human resource which is employed to maintain the employee information, in preparing the pay slip for each employee, to maintain the attendance for each employee, in resume scanning for interview management, to track the under going client project, to maintain the client information, to generate the reports for various management levels. The whole system is solely operated by single person called administrator. Administrator can enjoy in working of this system, by touching each modules of the system in a highly user friendly manner.

Hence, only one person operates the whole system all information's kept confidential. The HRM systems computerize all the details that are maintained manually. Once the details are feed into the computer there is no need for various people to deal with separate sections. Only a single person is enough to maintain all the reports. The security can also be given as per the requirements of the users.

3.4.2 Benefits of Proposed System

- ✓ Large volumes of data can be stored with case
- ✓ Maintenance of file is flexible
- ✓ Records stored are updated now and then.
- ✓ Stored data and procedures can be easily edited
- ✓ Reports can be generated with case
- ✓ Accurate calculations are made
- ✓ Less manpower required

3.5 Purpose of the Project

- ✓ to store large volume of data in easy manner
- ✓ flexibility can be maintained
- ✓ Updating of records are very easier
- ✓ reports can be generated in an efficient manner
- ✓ accurate calculations are made
- ✓ less manpower

3.6 Scope of the Project

The scope of the project is to convert requirements specified by the user into functional requirements and implement the same in the system. The system is a stand alone one and it involves following stages, requirement analysis, functional specification, design, coding and implementation.

3.7 Modules

- ✓ Employee profile (i.e., personal details)
- ✓ Employee training management
- ✓ Recruitment process
- ✓ Pay roll management
- ✓ Project management
- ✓ Designation details
- ✓ Reports

3.7.1 Employee profile

Employee profile would content personal details and other relevant details in organized module. Contact details of the employee such as his address, telephone number, passport details, etc., official detail of the employee such as company, designation, cost center, project details etc., account number details of the employee such as his P.F number etc., family details of the employee are maintained, which keeps track of the number of department people in his/her family and this comes handy during medical detail if and when claimed

3.7.2 Requirement Process

Requisition for any post is given by the Head of Department. To the HR department. Also candidates can physically drop in for walk – in interview and fill in their candidate profile. Candidate can apply online and the data can be captured and feed into the curriculum vitae. This will include the personal information, qualification, work experience and awards. Candidates can be sort listed according to their skills by the HR department. This skilled candidate is now marked for selection for an interview.

3.7.3 Pay roll management

Create the salary Head like basic, house rent allowance, provident fund, any allowances etc., to create the own formula for any salary head (ex: provident fund = 12% of basic). Create the own salary templates through HR pro and assign them simultaneously to the employees. During Pay Slip generation, flexibility has been provided that the user can add certain earning/reductions for that particular month for an employee. During final statement, the amount to the paid and to be detected is made available automatically; any extra adjustment in the amount to be paid or detected is also possible.

3.7.4 Time management

Employee can view his leave balance, self leave cancellation can be done before any action is taken by the in – line manager. HR can updated number of leaves at any point of time.

3.7.5 Employee Training Management

HR schedules the various training program for that year. HR nominates the employee for a training program. Feedback of the employees who have undergone training is recorded.

3.7.6 Designation details

Designation details of each employee along with their valid experience are maintained here. Based on their experience, the employee gets promotion to their next higher designation.

3.7.7 Project allotment

In this module the project to be completed is divided into small tasks. Each tasks is assigned a project leader

3.7.8 Project scheduling

In this module the starting date of the task is specified along with completion date of task. On completion of the day's work, all the workers send reports to the project leader

CHAPTER 4

PROGRAMMING ENVIRONMENT

CHAPTER 4

PROGRAMMING ENVIRONMENT

SYSTEM REQUIREMENT

HARDWARE AND SOFTWARE SPECIFICATION:

4.1 Hardware Specification:

The hardware components on which this application is developed are,

Processor	:	Intel P-IV based system
Processor Speed	:	250 MHz to 833MHz
RAM	:	64MB to 256MB
Hard Disk	:	2GB to 30GB
Key Board	:	104 keys

4.2 Software Specification

The software components required to develop this application are,

Front - End	:	Microsoft Visual Studio.NET 2003
Back - End	:	Ms.Access
Report	:	Crystal Report
Operating System	:	Windows XP professional or higher
RAM	:	256MB

4.3 ABOUT THE SOFTWARE

4.3.1.1 The .NET Framework Overview

The .NET Framework is a new computing platform that simplifies application development in the highly distributed environment of the internet. The .NET Frame work is designed to fulfill the following objectives:

- ✓ To provide a consistent object – oriented programming environment whether object code is stored and executed locally but internet – distributed, or executed remotely

- ✓ To provide a code – execution environment that minimizes software deployment and versioning conflicts.
- ✓ To provide a code – execution environment that guarantees safe execution of code, including code created by an unknown or semi-trusted third party.
- ✓ To provide code- execution environment that eliminates the performance problems of scripted or interpreted environments.
- ✓ To make the developer experience consistent across widely varying types of applications, such as windows based applications and web-based applications.
- ✓ To build all communication on industry standards to ensure that code based on the .NET Frame work can integrate with any other code.

The .NET Frame work is a multi language environment for building, deploying, and running XML web services and applications.

4.3.1.2 Common language runs time:

Despite its name, the run time actually has a role in both a components runtime and development time experiences. While the component is running, the runtime is responsible for managing memory allocation, starting up and stopping threads and processes, and enforcing security policy, as well as satisfying any dependencies that the component might have on other components. At development time, the runtime's role changes slightly; because it automates so much (for example, memory management), the runtime makes the developers experience very simple, especially when compared to COM as it is today. In particular, features such as reflection dramatically reduce the amount of cade a developer must write in order to turn business logic into a reusable component.

4.3.1.2 Unified programming classes

The frame work provides developers with a unified, object – oriented, hierarchical, and extensible set of class libraries (APIs). Currently, C++ developers use the Microsoft foundation classes and java developers are the windows foundation classes. The frame work unifies these disparate models and gives visual basic and J script programmer's access to class libraries as well. By creating a common set of APIs across all programming languages, common language runtime enables cross – language inheritance, error handling and debugging. All programming languages, from J Script to C++, have similar access to the FRAMEWORK and developers are free to choose the language that they want to use.

4.4 VB.NET DEFINED

Before getting deeply into the subject we will first know how Businesses are related to Internet, what .NET means to them and what exactly .NET is built upon. As per the product documentation from a Business perspective, there are three phases of the Internet. The First phase gets back to the early 1990's when Internet first came into general use and which brought a big revolution for Businesses. In the First phase of the Internet Businesses designed and launched their Website's and focused on the number of hits to know how many customers were visiting their site and interested in their products, etc. The Second phase is what we are in right now and in this phase Businesses are generating revenue through Online Transactions. We are now moving into the Third phase of the Internet where profit is the main priority. The focus here is to Businesses effectively communicated with their customers and partners, who are geographically isolated, participate in Digital Economy and deliver a wide range of services.

4.4.1 What is .NET?

Many people reckon that it's Microsoft's way of controlling the Internet, which is false. .NET is Microsoft's strategy of software that provides services to people any time, any place, on any device. An accurate definition of .NET is, it's an XML Web Services platform which allows us to build rich .NET applications, which allows users to interact with the Internet using wide range of smart devices which allows to build and integrate Web Services and which comes with many rich set of tools like Visual studio to fully develop and build those applications.

4.4.2 What are Web Services?

Web Services are the applications that run on a Web Server and communicate with other applications. It uses a series of protocols to respond to different requests. The protocols on which Web Services are built are summarized below:

4.4.2.1 UDDI

Stands for Universal Discovery and Description Integration. It's said to be the Yellow Pages of Web Services which allows Businesses to search for other Businesses allowing them to search for the services it needs, know about the services and contact them.

4.4.2.2 WSDL

Stands for Web Services Description Language, often called as whiz-dull. WSDL is an XML document that describes a set of SOAP messages and how those messages are exchanged.

4.4.2.3 SOAP

Stands for Simple Object Access Protocol. It's the communication protocol for Web Services.

4.4.2.4 XML, HTTP and SMTP

Stands for Extensible Markup Language, Hyper Text Transfer Protocol and Simple Message Transfer Protocol respectively. UDDI, WSDL and SOAP rely on these protocols for communication.

4.5 DATA BASE DESIGN

4.5.1 ADO .NET

Most applications need data access at one point of time making it a crucial component when working with applications. Data access is making the application interact with a database, where all the data is stored. Different applications have different requirements for database access.VB.NET uses ADO .NET (Active X Data Object) as it's data access and manipulation protocol which also enables us to work with data on the Internet. Let's take a look why ADO .NET came into picture replacing ADO.

4.5.2 Evolution of ADO.NET

The first data access model, DAO (data access model) was created for local databases with the built-in Jet engine which had performance and functionality issues. Next came RDO (Remote DATA OBJECT and ADO (Active Data Object) which were designed for Client Server Architecture but soon ADO took over RDO. ADO was a good architecture but as the language changes so is the technology. With ADO, all the data is contained in a record set object which had problems when implemented on the network and penetrating firewalls. ADO was a connected data access, which means that when a connection to the database is established the connection remains open until the application is closed. Leaving the connection open for the lifetime of the application raises concerns about database security and network traffic. Also, as databases are becoming increasingly

important and as they are serving more people, a connected data access model makes us think about its productivity. For example, an application with connected data access may do well when connected to two clients, the same may do poorly when connected to 10 and might be unusable when connected to 100 or more.

4.5.3 Why ADO.NET?

To cope up with some of the problems mentioned above, ADO .NET came into existence. ADO .NET addresses the above mentioned problems by maintaining a disconnected database access model which means, when an application interacts with the database, the connection is opened to serve the request of the application and is closed as soon as the request is completed. Likewise, if a database is updated, the connection is opened long enough to complete the Update operation and is closed. By keeping connections open for only a minimum period of time, ADO .NET conserves system resources and provides maximum security for databases and also has less impact on system performance. Also, ADO .NET when interacting with the database uses XML and converts all the data into XML format for database related operations making them more efficient.

4.5.4 The ADO.NET Data Architecture

Data Access in ADO.NET relies on two components: DataSet and Data Provider.

4.5.4.1 DataSet

The dataset is a disconnected, in-memory representation of data. It can be considered as a local copy of the relevant portions of the database. The DataSet is persisted in memory and the data in it can be manipulated and updated independent of the database. When the use of this DataSet is finished, changes can be made back to the central database for updating. The data in DataSet can be loaded from any valid data source like Microsoft SQL server database, an Oracle database or from a Microsoft Access database.

4.5.4.2 DataProvider

The Data Provider is responsible for providing and maintaining the connection to the database. A DataProvider is a set of related components that work together to provide data in an efficient and performance driven manner.

4.5.5 Data access with ADO.NET can be summarized as follows:

A connection object establishes the connection for the application with the database. The command object provides direct execution of the command to the database. If the command returns more than a single value, the command object returns a DataReader to provide the data. Alternatively, the DataAdapter can be used to fill the Dataset object. The database can be updated using the command object or the DataAdapter.

Fig 4.1 Ado.Net Architecture

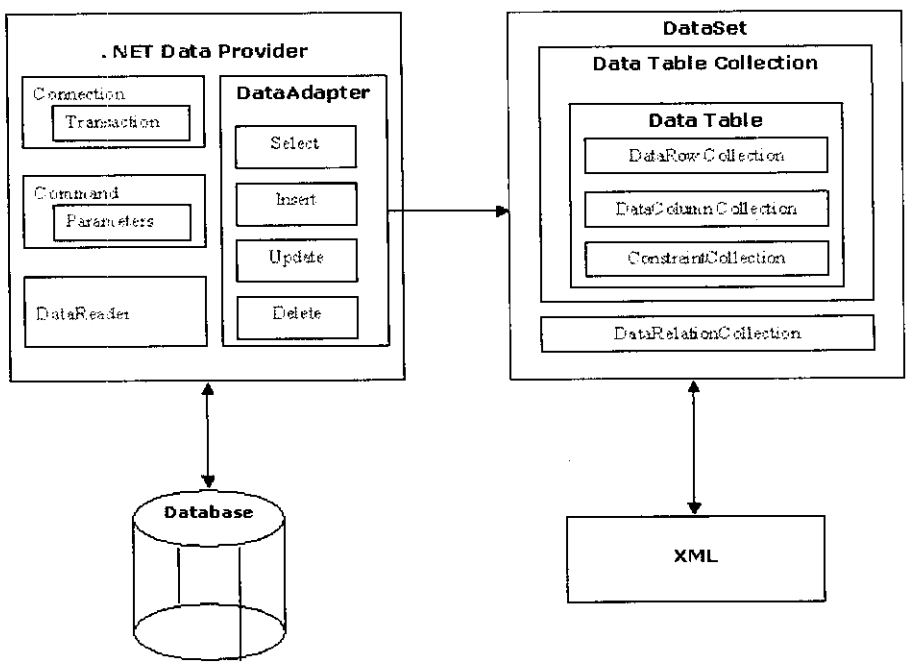


FIG – 4.1

4.5.6 Component classes that make up the Data Providers

The Connection Object

Connection object creates the connection to the database. Microsoft Visual Studio .NET provides two types of Connection classes: the SqlConnection object, which is designed specifically to connect to Microsoft SQL Server 7.0 or later, and the OleDbConnection object, which can provide connections to a wide range of database types like Microsoft Access.

CHAPTER 5

SYSTEM DESIGN & DEVELOPMENT

CHAPTER 5

SYSTEM DESIGN AND DEVELOPMENT

5.1 ELEMENT OF DESIGN

System design is the most creative and challenging phase in the life cycle of system development. Design implies to a description of a final system and the process by which it is develop. The first step to determine is what input data is needed to form the system and the database should that has to be designed to meet the requirement of the proposed system. The next step is to determine how the output is produced and in what format.

During the design of proposed system sum of thoughts that come to mind are,

What are the inputs required and the outputs proceed?

How the data be organized?

What should be the screen format?

What are the processors involved in the system?

These questions derives the following for types of design,

- ✓ Input design
- ✓ Output design
- ✓ Modular design
- ✓ Data base design

5.1.1 Input Design

The input design is the process of converting the user – oriented inputs into the computer – based format. The goal of designing input data is to make the automation as easy and free from error has possible.

5.1.1.1 User Login Form

This form is used to get the user name and password before going to access any authorized area of the system.

5.1.1.2 Project Management Form

This form allows administrator to enter the details of the on – going project and to assign the particular employee of that organization to their respective project.

5.1.1.3 Attendance Management Form

This form allows administrator to enter the attendance details of each employee, which in turn help to maintain that pay slip in a very easy manner.

5.1.1.4 Pay Slip Management Form

This form allows administrator to prepare the pay details of each employee on the basic of the attendance maintained by each employee.

5.1.1.5 Employee management Form

This for allows administrator to enter the details of each employee who are working the organization

5.1.2 Output Design

A quality output is one, which needs the requirement of the end user and presents the information clearly. Efficient and intelligent output design improves the systems relationship and helps user decision – making. The application output design is customized based on user input, which will generate the data depending on user's requirement. The accessibility of the output design is secured in the system with user authentication and rights. The output of this system is generated with the intention of two types of people.

5.1.2.1 Organizations Staffs

This people need to know pay details and the attendance maintained by them.

5.1.2.2 Administrator

This person requires to generate the output report when ever higher level people need to know the list of on – projects, the person working in each project, the outsource details.

5.1.3 Modular design

It is always difficult for any developer to grasp a system without breaking it up into several smaller systems. These smaller segments will all be part of the original system yet their will be independent in the sense that they will incorporate within then a major function in a system.

5.1.3.1 Recruitment process

This process involves two steps, Resume scanning and interview process

5.1.3.2 Training

If the recruited employee needs training, then training program is conducted

Training plans are informed to the existing customers

5.1.3.3 Designation details

Designation details of each employee along with their valid experience are maintain here. Based on their experience, the employee gets promotion to their next higher designation

5.1.3.4 Salary calculation

Salary calculation is made according to their attendance report, Loan details and designation

5.1.3.5 Project allotment

In this module the project to be completed is divided into small tasks. Each tasks is assigned a project leader

5.1.3.6 Project scheduling

In this module the starting date of the task is specified along with completion date of task. On completion of the day's work, all the workers send reports to the project leader

5.1.4 Data base Design

A Database is collection of interrelated data store with minimum redundancy to serve many users quickly and efficiently. The general objective of database design is to make the data access easy, in expensive and flexible to the user. The design of the database is one of the most critical parts of design phase. An elegantly database can play as a strong foundation for the whole system. The details about the data relevant for the system are identifying first.

According to their relationship, tables are designed by the following standard database design modules. The data types for each data item in the table are decided. For the optimum design of the database, to have better response time, to have data integrity, to avoid redundancy and for the security of the database all the tables created are normalized. The database design is done according to the procedure. The database design transforms the information domain module created during the analysis into the data structure that will be required to implement the system software.

The database design is made up of two levels,

- Conceptual level
- Normalization

Conceptual Level

The level represents the major data object and relation ship between them. Conceptual level describe the essential future of the system data. Just like a DFD for a system, the conceptual level uses symbols for modeling method called Entity – Relationship module.

Relationship between entities make the database structure. Four types of relationship exist among entities. They are,

- One – to – one
- One – to – many
- Many – to – many
- Many – to – many

Normalization

After the conceptual level, the next level to organize the database to a good shape is called normalization. The normalization simplifies the entities, removes the redundancies from the system data and finally builds a data structure, which is both flexible and adoptable to the system. Normalization offers a systematic step- by- step approach towards this goal. The different normal form applied is given below,

- First normal form (NF)
- Second normal form (2NF)
- Third normal form (3NF)

The database is designed sing RDBMS concept their by enabling the sharing of data and was normalized to avoid the redundancy. This will lead to quicker application development with the low maintenance cost.

Overview of the Normal Form

The following are formal definitions for the most common normal forms

Functional Dependencies (FD)

Given an entity E, attribute B of E is functionally dependent on attribute A of E if and only if each value of A in E has associated with it precisely one val;ue of B in E (at any one time).

Full Functional Dependence

Given an Entity E, attribute B of E is fully functionally dependent on set of attributes A of E if and only if B is functionally dependent on A and not functionally dependent on any proper subset of A.

5.2 TABLE STRUCTRUE

Table 5.1 LOGIN TABLE

Field name	**Data type**	**Width**	**Description**
User name	Varchar(2)	25	User name
Password	Varchar(2)	15	Password

Table 5.2 CANDITATE DETAILS

Field name	Data type	Width	Description
Cv code	Varchar(2)	9	Resume number
Emp ref	Varchar(2)	9	Employee code
Emp name	Varchar(2)	25	Emp ref. Name
Con code	Varchar(2)	9	Contractor code
Con name	Varchar(2)	35	Contractor name
Address	Varchar(2)	50	Address
City	Varchar(2)	15	City
Nationality	Varchar(2)	15	Nationality
State	Varchar(2)	35	State
Pin code	Number	8	Pin
Contact	Number	12	Contact
Email	Varchar(2)	20	E mail

Dob	Date	10	Dob
Gender	Varchar(2)	8	Gender
Pass no	Number	10	Passport no.
Exp date	Date	15	Expiry date
Total exp	Varchar(2)	25	Tot. Exp
Skill1	Varchar(2)	25	Skill1
Skill2	Varchar(2)	25	Skill2
Skill 3	Varchar(2)	25	Skill3
Reference	Varchar(2)	25	Reference

Table 5.3 AGENT DETAILS

Field name	Data type	Width	Description
Name	Varchar(2)	25	Name
Contact person	Varchar(2)	25	Contact person
Phone	Number	12	Phone
Mobile no	Number	12	Mobile no
Fax	Varchar(2)	12	Fax
Email	Varchar(2)	35	Email
Address	Varchar(2)	50	Address
Pincode	Number	10	Pincode

Table 5.3

Table 5.4 CLIENT DETAIL

Field name	Data type	Width	Description
Name	Varchar(2)	25	Name

Contact person	Varchar(2)	25	Contact person
Phone	Number	12	Phone
Mobile no	Number	12	Mobile no
Fax	Varchar(2)	12	Fax
Email	Varchar(2)	35	Email
Address	Varchar(2)	50	Address

Table 5.5 AVAILABLE JOBS

FIELD NAME	DATA TYPE	WIDTH	DESCRIPTION
Job id	Number	5	Job id
Job title	Varchar(2)	20	Job title

Table 5.6 SEARCH CANDITATE

Field name	Data type	Width	Description
Applied on	Date	8	Applied on
Agent	Varchar(2)	25	Agent
Dob	Number	12	Dob
Passport	Number	12	Passport
Address	Varchar(2)	50	Address
City	Varchar(2)	20	City
Pin code	Number	8	Pin code
Qualification	Varchar(2)	25	Qualification
Total exp	Varchar(2)	50	Total exp

Table 5.7 CANDITATE STATUS

Field name	Data type	Width	Description
Can id	Num	8	Can id

Name	Varchar(2)	25	Name
Job applied	Varchar(2)	25	Job applied
Passport	Num	12	Passport
Agent	Varchar(2)	35	Agent
Company	Varchar(2)	35	Company
Interview location	Varchar(2)	25	Interview location
Interview status	Varchar(2)	25	Interview status
Medical status	Varchar(2)	25	Medical status
Departure status	Varchar(2)	25	Departure status
Interview date	Date	8	Interview date
Medical date	Date	8	Medical date
Submit date	Date	8	Submit date
Departure date	Date	8	Departure date
Remarks	Varchar(2)	50	Remarks

Table 5.8 INTERVIEW STATUS

Field name	Data type	Width	Description
Client	Varchar(2)	25	Client
Status	Varchar(2)	25	Job status
Emp code	Number	8	Employee code

Table 5.9 PAYROLL

Field name	Data type	Width	Description
Emp id	Num	8	Emp id
Emp name	Varchar(2)	25	Emp name
Emp status	Varchar(2)	25	Emp status

Table 5. 10 Salary Detail

Field name	Data type	Width	Description
Emp id	Num	8	Emp id
Emp name	Varchar(2)	25	Emp name
Emp status	Varchar(2)	25	Emp status

Table 5.11 Candidate Status

Field name	Data type	Width	Description
Client	Varchar(2)	25	Client
Status	Varchar(2)	25	Job status
Emp code	Number	8	Employee code

CHAPTER 6

SYSTEM FLOW DIAGRAM

CHAPTER 6

SYSTEM FLOW DIAGRAM

6.1 DATA FLOW DIAGRAM

A graphical tool used to describe and analyze the moment of data through a system manual or automated including the process, stores of data, and delays in the system. Data Flow Diagrams are the central tool and the basis from which other components are developed. The transformation of data from input to output, through processes, may be described logically and independently of the physical components associated with the system. The DFD is also know as a data flow graph or a bubble chart.

6.1.2 Types of Data Flow Diagrams:

Data Flow Diagrams are of two types as follows:

Physical DFD

Logical DFD

6.1.2.1 Physical DFD

Structured analysis states that the current system should be first understand correctly. The physical DFD is the model of the current system and is used to ensure that the current system has been clearly understood. Physical DFDs shows actual devices, departments, and people etc., involved in the current system

6.1.2.2 Logical DFD

Logical DFD's are the model of the proposed system. They clearly should show the requirements on which the new system should be built. Later during design activity this is taken as the basis for drawing the system's structure charts.

6.2 BASIC NOTATION:

The Basic Notation used to create a DFD's are as follows:

DATAFLOW: Data move in a specific direction from an origin to a destination.

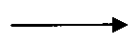


Fig – 6.1

PROCESS: People, procedures, or devices that use or produce (Transform) Data. The physical component is not identified.

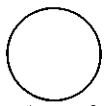


Fig – 6.2

SOURCE: External sources or destination of data, which may be People, programs, organizations or other entities.

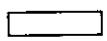


Fig - 6.3

DATA STORE: Here data are stored or referenced by a process in the System

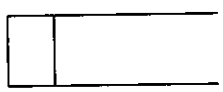


Fig – 6.4

6.3 DFD

LEVEL – 0 DFD

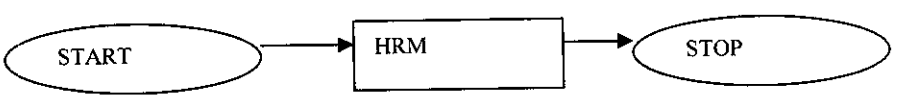


Fig – 6.5

LEVEL – 1 DFD

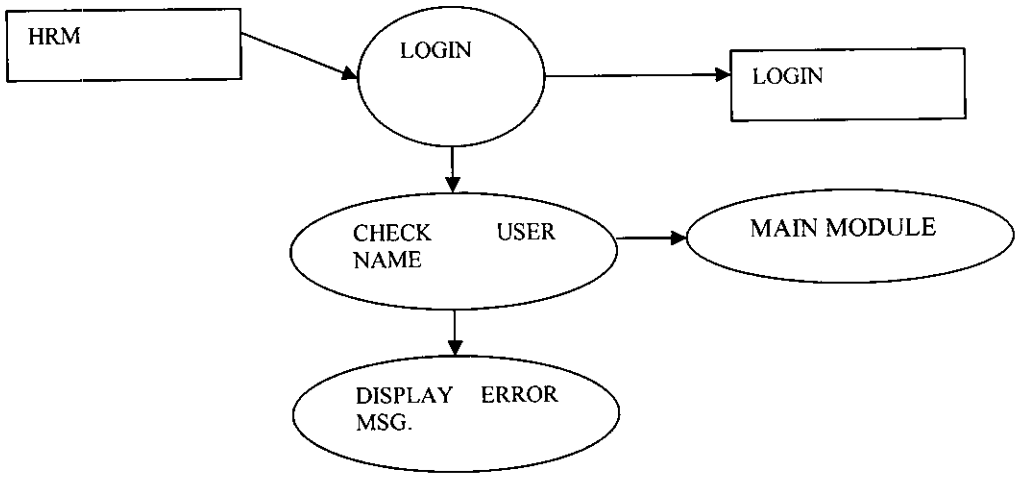


Fig – 6.6

LEVEL 2 DFD

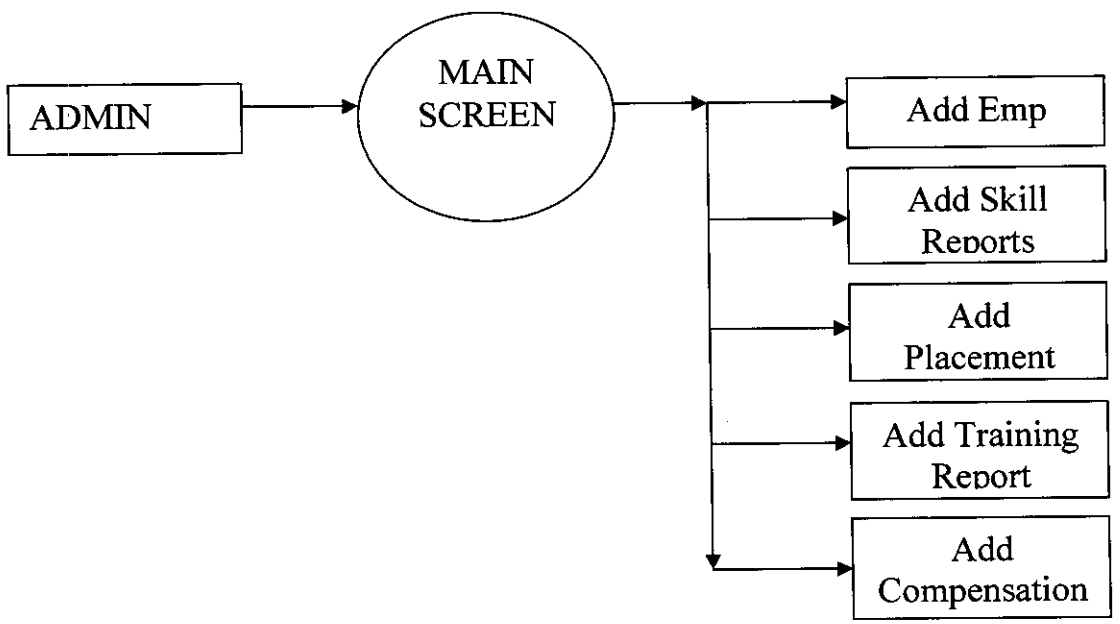


Fig – 6.7

Level 3 DFD

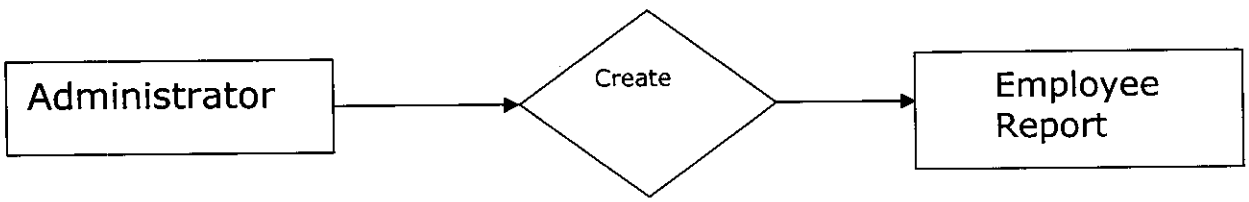


Fig – 6.8

Level 4 DFD

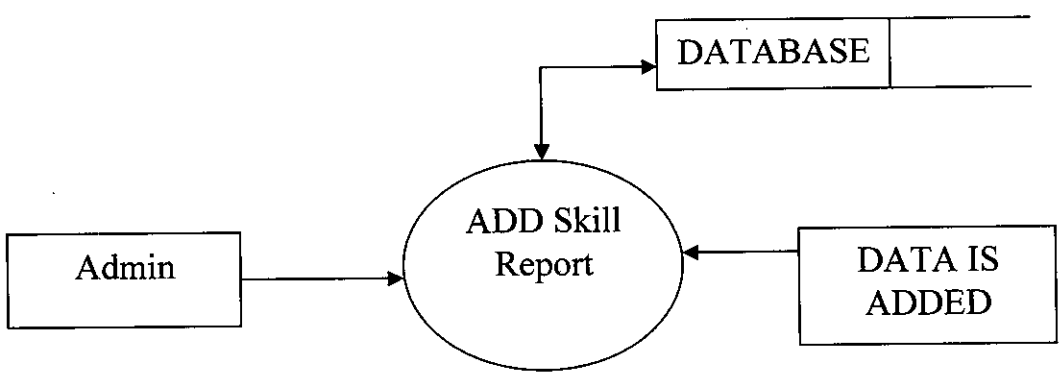


Fig – 6.9

6.3.1 Training Reports

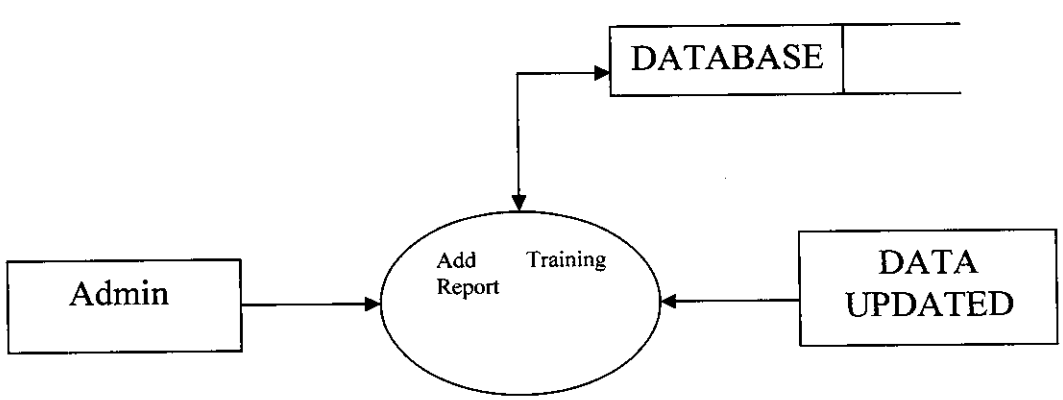


Fig – 6.10

CHAPTER 7

SYSTEM TESTING & IMPLEMENTATION

CHAPTER 7

SYSTEM TESTING AND IMPLEMENTATION

7.1 System Testing

The philosophy behind testing is to find errors. System testing is an expensive but critical process that can take as much as 50 percent of the budget for the program development. The common view of the testing held by the users is that it is performed to prove that there are no errors in the program. This is virtually impossible, since analyst cannot prone that software is free and clean of errors.

Testing is defined as a set of activities that can be planned in advance and conducted systematically to check the functionality of a product or system.

7.1.1 Characteristics of Software Testing

- ✓ Software testing is a critical element of software quality assurances and represents the ultimate review of specifications.
- ✓ Software testing process is the mean which people, methods, measurement, tools and equipment are integrated to test a software product.
- ✓ Software testing ensures that the system works accurately and efficiently before the live action commences.
- ✓ The quality and effectiveness of software testing are primarily determined by the quality of the test processed used.
- ✓ Testing has its own cycle and the candidate system is subject to variety of tests.
- ✓ The testing process begins with the product requirements phase and from there parallels the entire development process.
- ✓ To verify the interaction between the objects.
- ✓ To verify the proper integration of all components of the software.
- ✓ To verify that all requirements have been correctly implemented.
- ✓ To identify and ensure defects are addressed.
- ✓ Testing and debugging are different activities but debugging must be accommodated in any testing strategy.

The following of the strategic issues that must be addressed if a successful testing strategy is to be implemented to test the developed application.

7.1.2 Test Procedure

The completion of a system is achieved only after it has been thoroughly tested. Though this gives a feel the project is completed, there cannot be any project without going though this stage. Hence in this stage it is decided whether the project can under go the real time environment execution without any break downs, therefore a package can be rejected even at this stage.

7.1.3 System Testing

Testing is a set of activities that can be planned in advance and conducted systematically. The proposed system is tested in parallel with the software that consists of its own phases of analysis, implementation, testing and maintenance. Following are the tests conducted on the system.

7.1.4 Unit Testing

During the implementation of the system each module of the system was tested separately to uncover errors with in its boundaries. User interface was used as a guide in the process.

7.1.5 Integration Testing

Integration testing is a systematic technique for constructing the program structure while conducting tests to uncover errors associated with interfacing. The objective is to take unit-tested module and build a program structure that has been dictated by design.

7.1.6 Acceptance Testing

The software has been tested with the realistic data given by the client and produced fruitful results. The client satisfying all the requirements specified by them has also developed the software within the time limitation specified. A demonstration has been given to the client and the end-user giving all the operational features.

7.2 Implementation

The implementation is one phase of software. It is concerned with translating design specification with source code. The primary goal of implementation is to write source code to its specification can be easily verified, and so that debugging, testing, and modification can be eased. The goal can be achieved by making the source code as clear and straight forward as possible.

The implementation is the process of converting a new or revised system into operational one. It is the key stage in achieving a new system because it involves a lot of upheaval in the user environment.

System testing is an essential but is critical process that can take much as 50% of the budget of program development. Testing is the stage of implementation which is aimed at ensuring that the system works accurately and efficiently before live operation commence. Through this testing we can examine the logical and physical design of the system thoroughly.

Tests data are designed to show that the system will operate successfully in all aspects and produce expected result as specified. Thus the presentation of test data and checking of results are carried out in conjunction with the appropriate user. Implementation includes all those activities that take place to convert from the old system to new.

The new system may be totally new, replacing an existing manual or automated system or it may be major modification to an existing system. Proper implementation is essential to provide a reliable system to meet the organization requirements if the organization using this system, but improper implementation will prevent it.

Implementation includes all these activities that take place to convert from the old system to new one. The new systems may be,

1. Totally new one.
2. Replacing an existing manual or automated system.
3. Major modification to the existing system.

CHAPTER 8

CONCLUSION & FUTURE ENHANCEMENT

CHAPTER 8

CONCLUSION AND FUTURE ENHANCEMENT

8.1 Conclusions

The proposed system simplifies all the work in all departments and it brings it to a single system. It also reduces the manpower needed to maintain the system The human resource management system is successfully designed and developed to fulfilling the necessary requirements, as identified in the requirements analysis phase, such as the system is very much user friendly, form level validation and field level validation are performing very efficiently.

Since every information is seen in a single system retrieval of information becomes easier. All the information is tied in a single system, updating of information also becomes very easier. The drawbacks, whish are faced during existing system, can be eradicated by using the proposed system. The main objective of the existing system is to provide a user-friendly interface.

The new computerized system was found to be much faster and reliable and user friendly then the existing system, the system has been designed and developed step-by-step and tested successfully. It eliminates the human errors that are likely to creep in the kind of working in which a bulk quantify of data and calculations has to be processed.

8.2 FUTURE ENHANCEMENT

Every system should allow scope for further development or enhancement. The system can be adapted for any further development. The system is so flexible to allow any modification need for the further functioning of programs. Video conferencing methods can implement for training in near future.

Since the objectives may be brought out broad in future, the system can be easily modified accordingly, as the system has been modularized. The future expansion can be done in a concise manner in order to improve the efficiency of the system

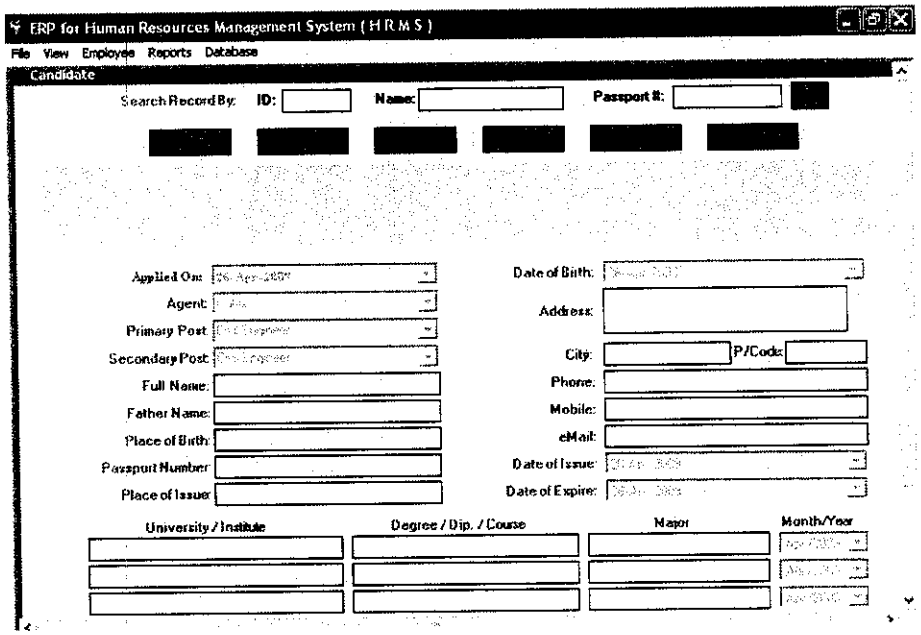
CHAPTER 9

APPENDICES

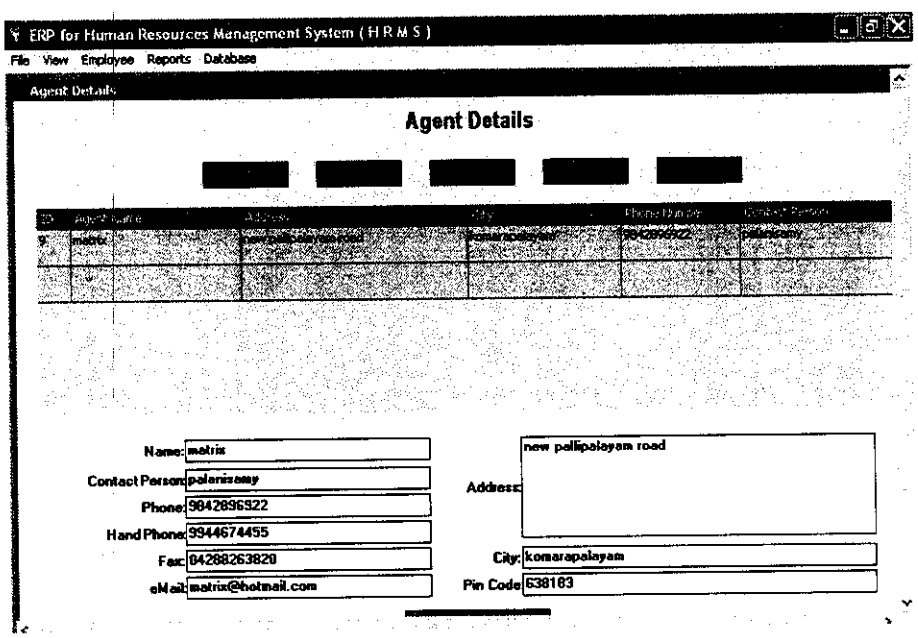
9. APPENDICES

9.1 SAMPLE SCREENS

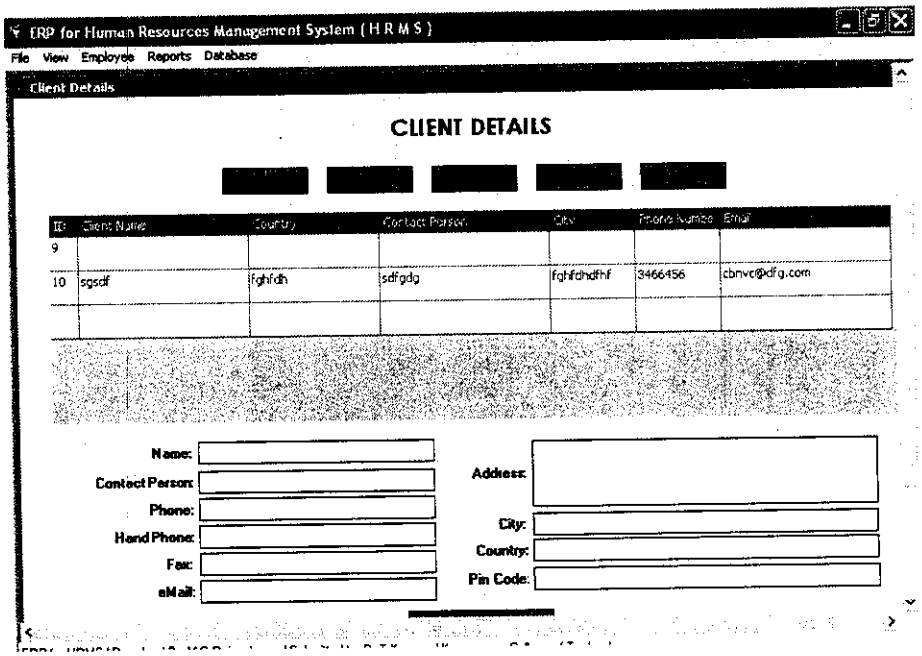
1. CANDIDATE DETAILS



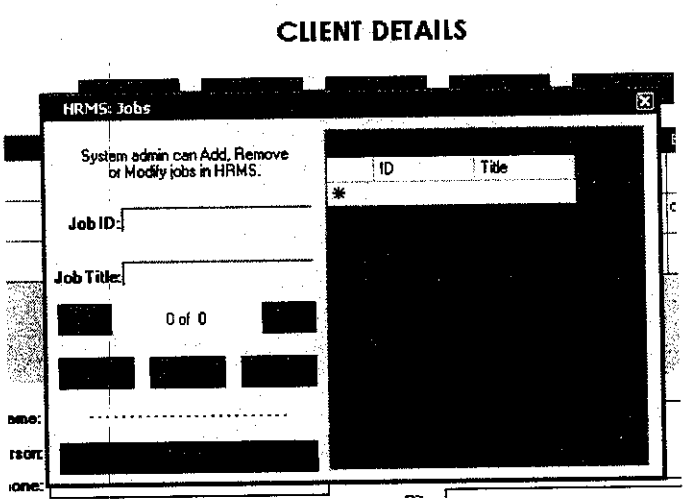
2. AGENT DETAILS



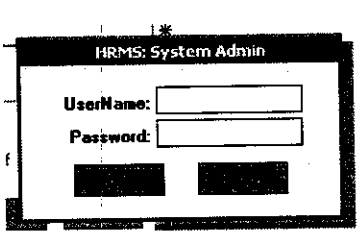
3. CLIENT DETAILS



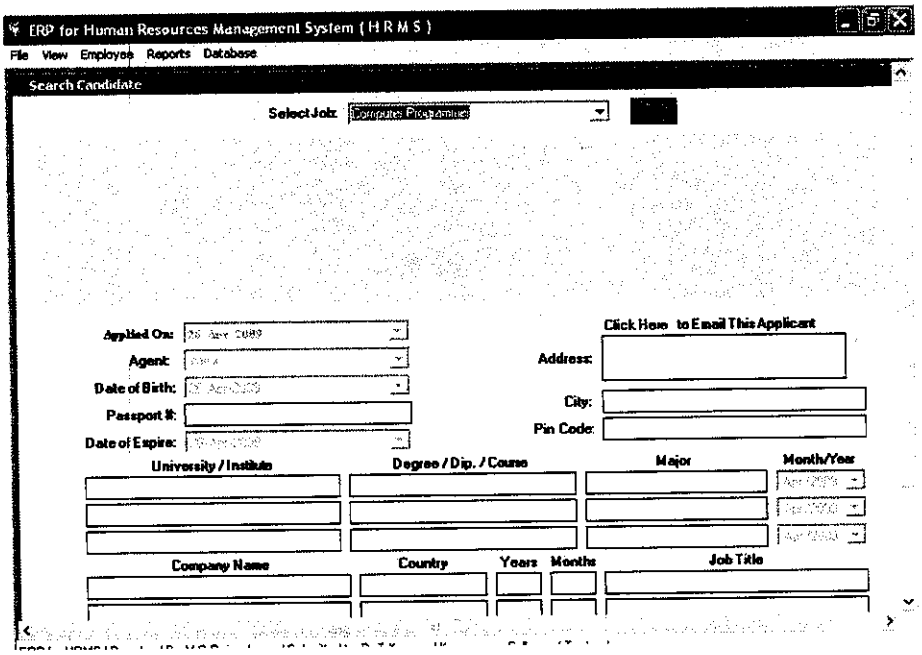
4. JOB DETAILS



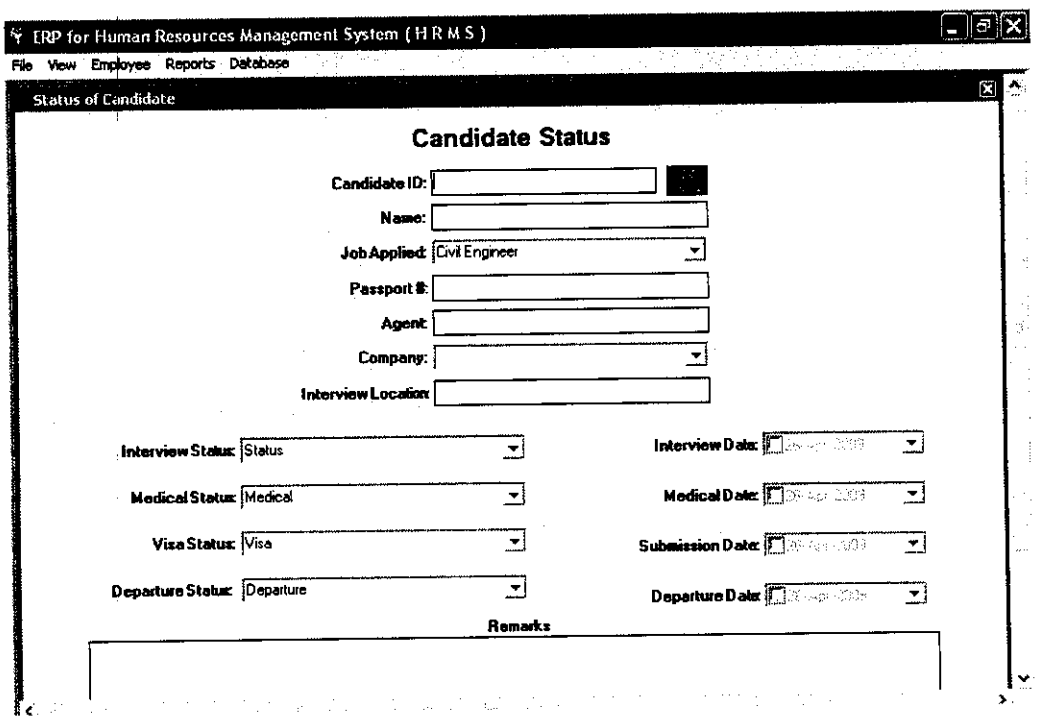
5. ADMINISTRATOR LOGIN



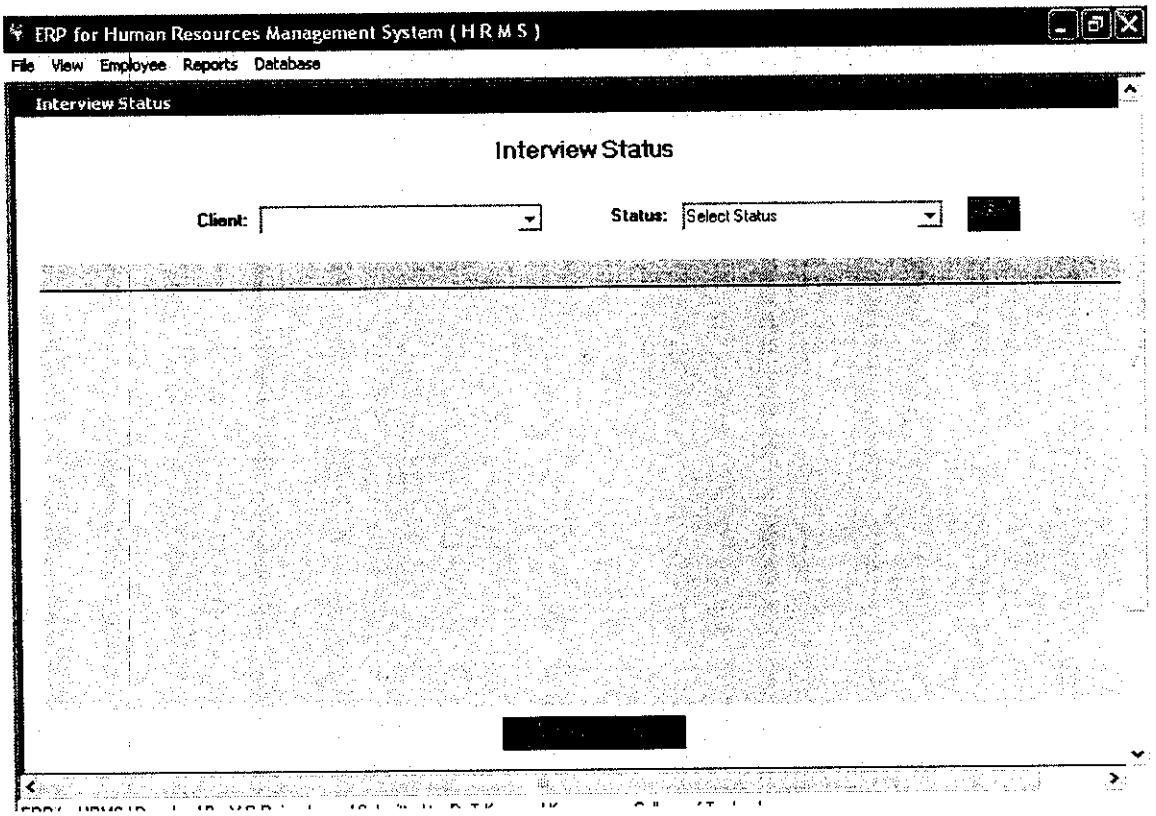
6. SEARCH CANDIDATE



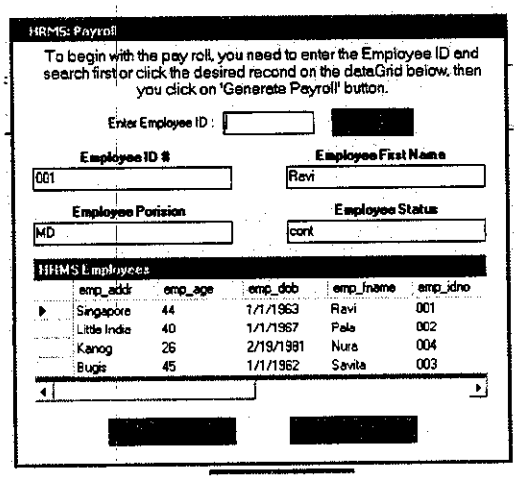
7. CANDIDATE STATUS



8. INTERVIEW STATUS

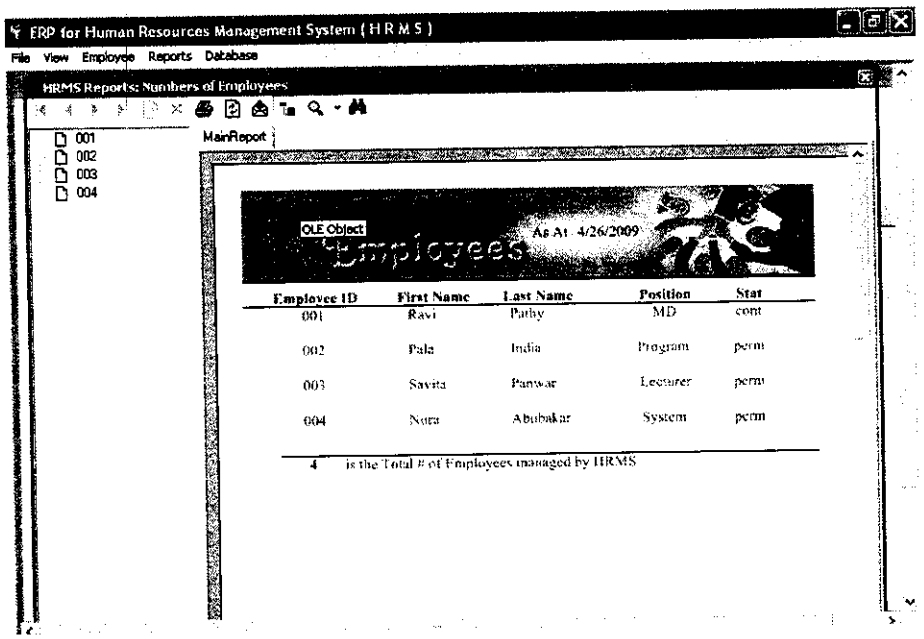


9. PAYROLL

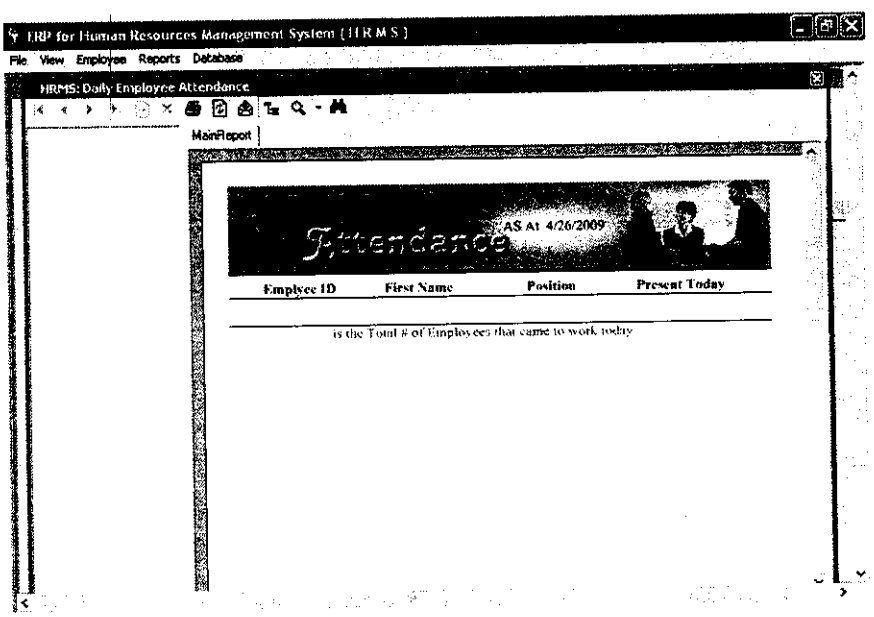


9.2 REPORTS

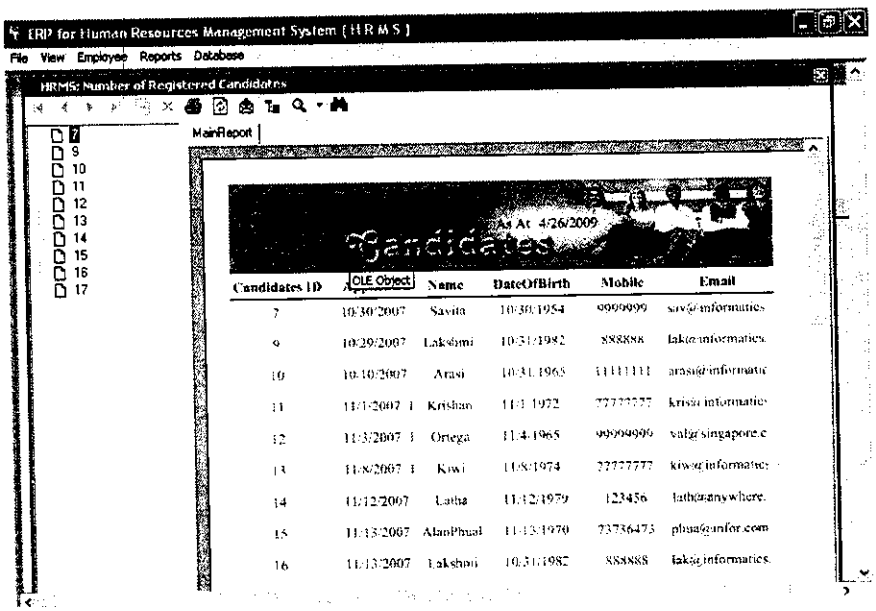
1. NUMBER OF EMPLOYEES



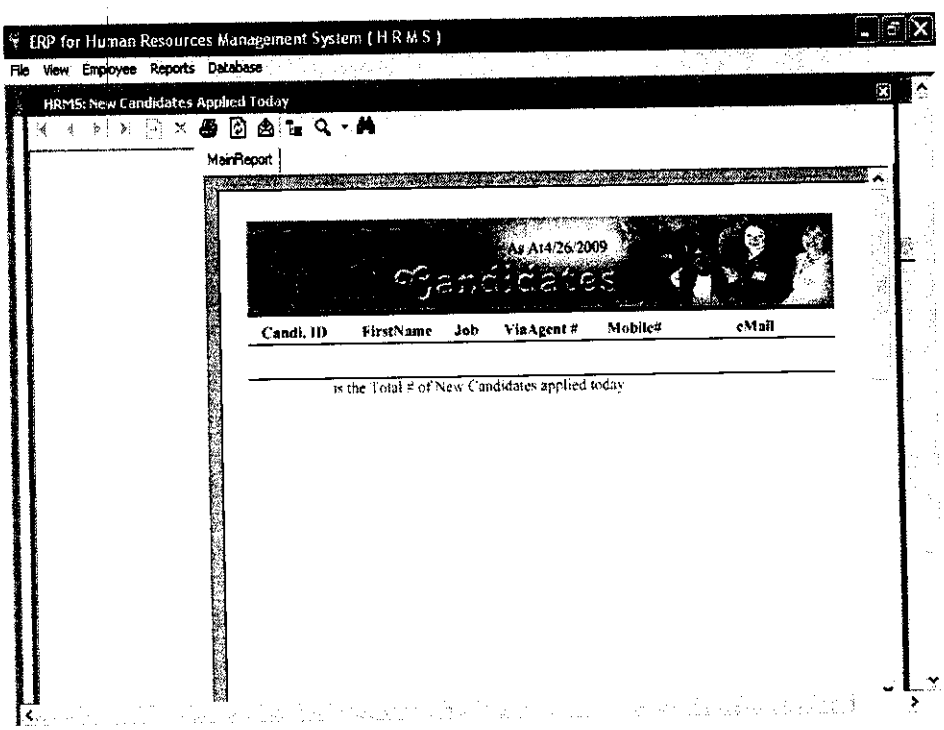
2. DAILY ATTENDANCE



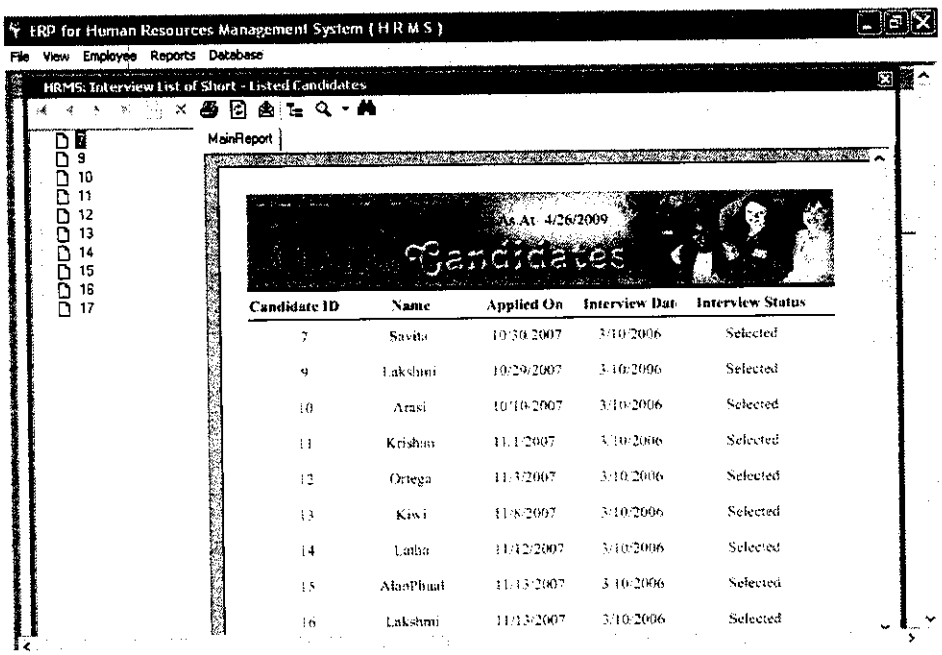
3. NUMBER OF REGISTERED CANDIDATES



4. NEW CANDIDATES APPLIED TODAY

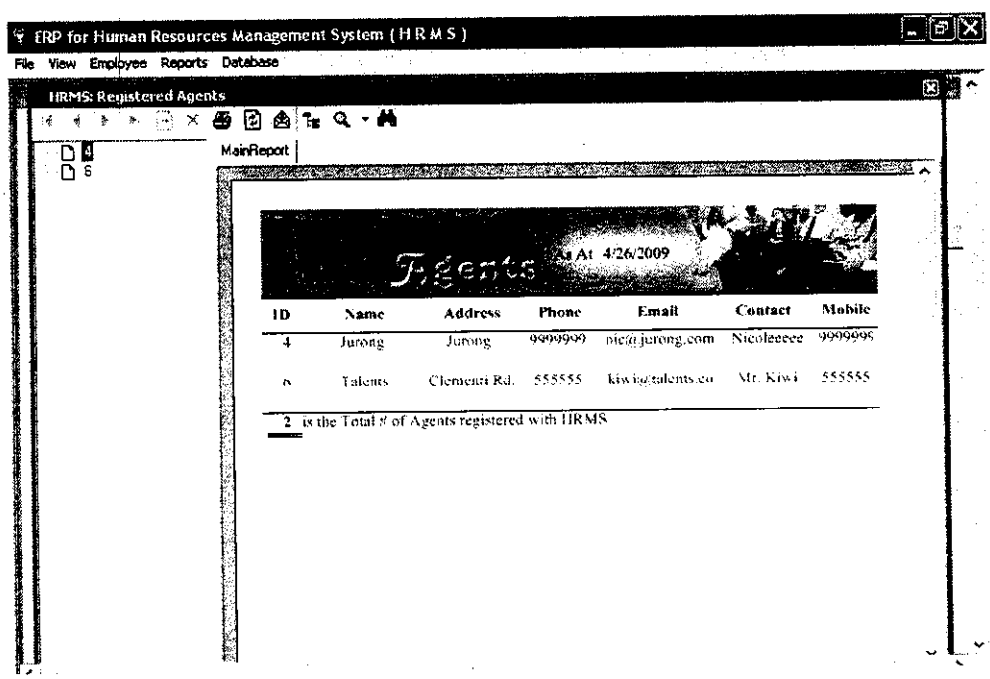


5. INTERVIEW LIST OF SHORT LISTED CANDIDATES



Candidate ID	Name	Applied On	Interview Dat	Interview Status
7	Savita	10/30/2007	3/10/2006	Selected
9	Lakshmi	10/29/2007	3/10/2006	Selected
10	Arasi	10/10/2007	3/10/2006	Selected
11	Krishna	11/1/2007	3/10/2006	Selected
12	Ortega	11/3/2007	3/10/2006	Selected
13	Kiwi	11/8/2007	3/10/2006	Selected
14	Latha	11/12/2007	3/10/2006	Selected
15	AlanPhani	11/13/2007	3/10/2006	Selected
16	Lakshmi	11/13/2007	3/10/2006	Selected

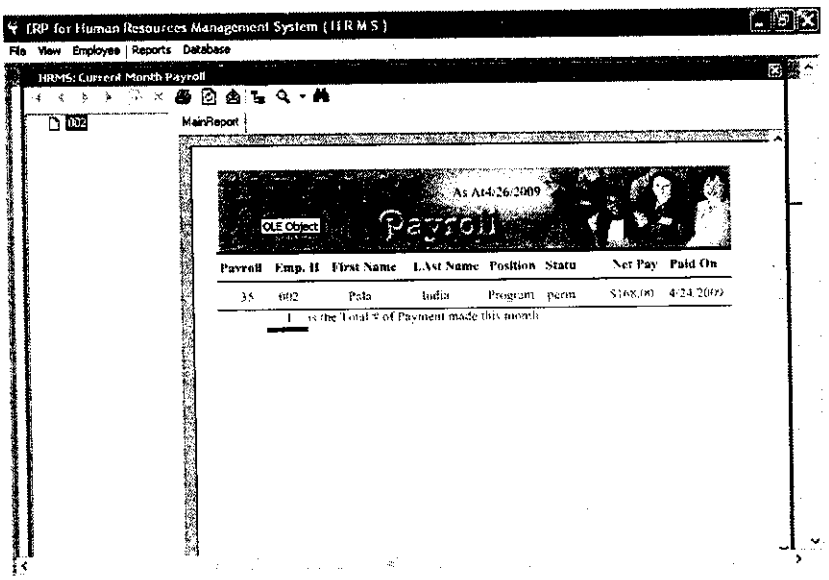
6. AGENTS



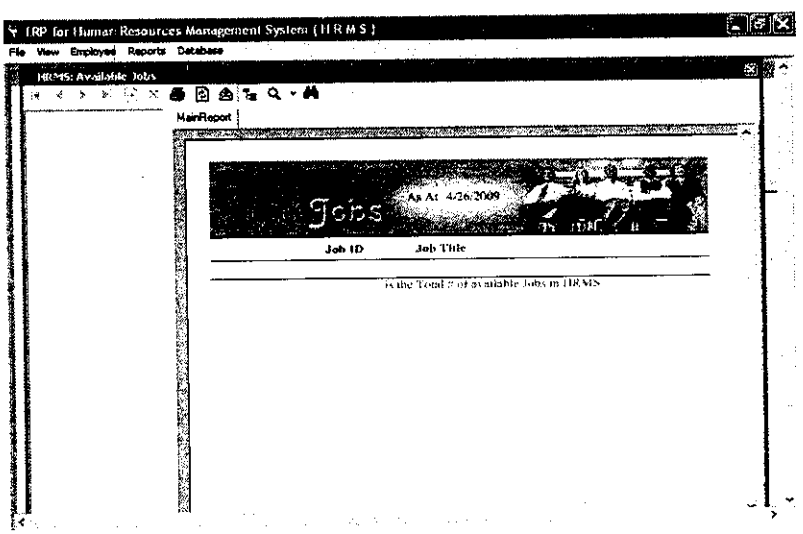
ID	Name	Address	Phone	Email	Contact	Mobile
4	Jurong	Jurong	9999999	nic@jurong.com	Nicoleeeee	9999996
6	Talents	Clementi Rd.	555555	kiwi@talents.co	Mr. Kiwi	555555

2 is the Total # of Agents registered with HRMS

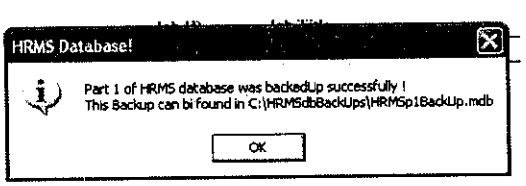
7. CURRENT MONTH PAY ROLL



8. AVAILABLE JOBS



9. DATA BASE BACK UP



9.3 SAMPLE SOURCE CODE

SAMPLE SOURCE CODE FOR CONCEPT BASED ERP FOR A HUMAN RESOURCE MANAGEMENT

Mdi form

```
Imports Util
Imports HRMS
Imports System.IO
Imports Microsoft
Imports std
Imports CrystalDecisions

Public Class frmMain
    Inherits System.Windows.Forms.Form

#Region " Windows Form Designer generated code "

    Public Sub New()
        MyBase.New()

        'This call is required by the Windows Form Designer.
        InitializeComponent()

        'Add any initialization after the InitializeComponent() call

    End Sub

    'Form overrides dispose to clean up the component list.
    Protected Overloads Overrides Sub Dispose(ByVal disposing As Boolean)
        If disposing Then
            If Not (components Is Nothing) Then
                components.Dispose()
            End If
        End If
        MyBase.Dispose(disposing)
    End Sub

    'Required by the Windows Form Designer
    Private components As System.ComponentModel.IContainer

    'NOTE: The following procedure is required by the Windows Form
Desigrer
    'It can be modified using the Windows Form Designer.
    'Do not modify it using the code editor.
```

```
Friend WithEvents MainMenu1 As System.Windows.Forms.MainMenu
Friend WithEvents MenuItem1 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem2 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem3 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem5 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem6 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem7 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem4 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem8 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem9 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem10 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem11 As System.Windows.Forms.MenuItem
Friend WithEvents StatusBar1 As System.Windows.Forms.StatusBar
Friend WithEvents ContextMenu1 As System.Windows.Forms.ContextMenu
Friend WithEvents MenuItem13 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem14 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem15 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem17 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem18 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem19 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem21 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem22 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem24 As System.Windows.Forms.MenuItem
Friend WithEvents NotifyIcon1 As System.Windows.Forms.NotifyIcon
Friend WithEvents ContextMenu2 As System.Windows.Forms.ContextMenu
Friend WithEvents MenuItem25 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem26 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem27 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem28 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem29 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem30 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem33 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem34 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem32 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem35 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem12 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem31 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem36 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem37 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem38 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem39 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem40 As System.Windows.Forms.MenuItem
Friend WithEvents MenuItem41 As System.Windows.Forms.MenuItem
```

```
    Friend WithEvents MenuItem42 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem43 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem44 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem16 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem45 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem46 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem20 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem23 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem47 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem48 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem49 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem50 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem51 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem52 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem53 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem54 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem55 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem56 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem57 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem58 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem59 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem60 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem61 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem62 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem63 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem64 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem65 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem66 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem67 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem68 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem69 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem70 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem71 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem72 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem73 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem74 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem75 As System.Windows.Forms.MenuItem
    Friend WithEvents MenuItem76 As System.Windows.Forms.MenuItem
    Friend WithEvents OpenFileDialog1 As
System.Windows.Forms.OpenFileDialog
    <System.Diagnostics.DebuggerStepThrough()> Private Sub
InitializeComponent()
        Me.components = New System.ComponentModel.Container
```

```
        Dim resources As System.Resources.ResourceManager = New
System.Resources.ResourceManager(GetType(frmMain))
        Me.MainMenu1 = New System.Windows.Forms.MainMenu
        Me.MenuItem1 = New System.Windows.Forms.MenuItem
        Me.MenuItem2 = New System.Windows.Forms.MenuItem
        Me.MenuItem23 = New System.Windows.Forms.MenuItem
        Me.MenuItem3 = New System.Windows.Forms.MenuItem
        Me.MenuItem4 = New System.Windows.Forms.MenuItem
        Me.MenuItem53 = New System.Windows.Forms.MenuItem
        Me.MenuItem52 = New System.Windows.Forms.MenuItem
        Me.MenuItem32 = New System.Windows.Forms.MenuItem
        Me.MenuItem34 = New System.Windows.Forms.MenuItem
        Me.MenuItem33 = New System.Windows.Forms.MenuItem
        Me.MenuItem8 = New System.Windows.Forms.MenuItem
        Me.MenuItem5 = New System.Windows.Forms.MenuItem
        Me.MenuItem6 = New System.Windows.Forms.MenuItem
        Me.MenuItem9 = New System.Windows.Forms.MenuItem
        Me.MenuItem7 = New System.Windows.Forms.MenuItem
        Me.MenuItem10 = New System.Windows.Forms.MenuItem
        Me.MenuItem11 = New System.Windows.Forms.MenuItem
        Me.MenuItem12 = New System.Windows.Forms.MenuItem
        Me.MenuItem35 = New System.Windows.Forms.MenuItem
        Me.MenuItem31 = New System.Windows.Forms.MenuItem
        Me.MenuItem26 = New System.Windows.Forms.MenuItem
        Me.MenuItem27 = New System.Windows.Forms.MenuItem
        Me.MenuItem38 = New System.Windows.Forms.MenuItem
        Me.MenuItem43 = New System.Windows.Forms.MenuItem
        Me.MenuItem28 = New System.Windows.Forms.MenuItem
        Me.MenuItem48 = New System.Windows.Forms.MenuItem
        Me.MenuItem47 = New System.Windows.Forms.MenuItem
        Me.MenuItem44 = New System.Windows.Forms.MenuItem
        Me.MenuItem36 = New System.Windows.Forms.MenuItem
        Me.MenuItem37 = New System.Windows.Forms.MenuItem
        Me.MenuItem39 = New System.Windows.Forms.MenuItem
        Me.MenuItem40 = New System.Windows.Forms.MenuItem
        Me.MenuItem41 = New System.Windows.Forms.MenuItem
        Me.MenuItem42 = New System.Windows.Forms.MenuItem
        Me.MenuItem51 = New System.Windows.Forms.MenuItem
        Me.MenuItem49 = New System.Windows.Forms.MenuItem
        Me.MenuItem50 = New System.Windows.Forms.MenuItem
        Me.MenuItem29 = New System.Windows.Forms.MenuItem
        Me.MenuItem30 = New System.Windows.Forms.MenuItem
        Me.MenuItem76 = New System.Windows.Forms.MenuItem
System.Windows.Forms.NotifyIcon(Me.components)
```

```
        Me.ContextMenu2 = New System.Windows.Forms.ContextMenu
        Me.MenuItem25 = New System.Windows.Forms.MenuItem
        Me.OpenFileDialog1 = New System.Windows.Forms.OpenFileDialog
        Me.SuspendLayout()
        '
        'MainMenu1
        '
        Me.MainMenu1.MenuItems.AddRange(New
System.Windows.Forms.MenuItem()        {Me.MenuItem1,        Me.MenuItem5,
Me.MenuItem10, Me.MenuItem26, Me.MenuItem29})
        Me.MainMenu1.RightToLeft = System.Windows.Forms.RightToLeft.No
        '
        'MenuItem1
        '
        Me.MenuItem1.Index = 0
        Me.MenuItem1.MenuItems.AddRange(New
System.Windows.Forms.MenuItem()        {Me.MenuItem2,        Me.MenuItem23,
Me.MenuItem3, Me.MenuItem4, Me.MenuItem53, Me.MenuItem52, Me.MenuItem32,
Me.MenuItem34, Me.MenuItem33, Me.MenuItem8})
        Me.MenuItem1.Text = "&File"
        '
        'MenuItem2
        '
        Me.MenuItem2.Index = 0
        Me.MenuItem2.Text = "&Candidates"
        '
        'MenuItem23
        '
        Me.MenuItem23.Index = 1
        Me.MenuItem23.Text = "-"
        '
        'MenuItem3
        '
        Me.MenuItem3.Index = 2
        Me.MenuItem3.Text = "&Agents"
        '
        'MenuItem4
        '
        Me.MenuItem4.Index = 3
        Me.MenuItem4.Text = "Clien&ts"
        '
        'MenuItem53
        '
        Me.MenuItem53.Index = 4
```

```
        Me.MenuItem53.Text = "-"
        '
        'MenuItem52
        '
        Me.MenuItem52.Index = 5
        Me.MenuItem52.Text = "J&obs"
        '
        'MenuItem32
        '
        Me.MenuItem32.Index = 6
        Me.MenuItem32.Text = "-"
        '
        'MenuItem34
        '
        Me.MenuItem34.Index = 7
        Me.MenuItem34.Text = "A&dmin"
        '
        'MenuItem33
        '
        Me.MenuItem33.Index = 8
        Me.MenuItem33.Text = "-"
        '
        'MenuItem8
        '
        Me.MenuItem8.Index = 9
        Me.MenuItem8.Text = "E&xit ..."
        '
        'MenuItem5
        '
        Me.MenuItem5.Index = 1
        Me.MenuItem5.MenuItems.AddRange(New
System.Windows.Forms.MenuItem()        {Me.MenuItem6,        Me.MenuItem9,
Me.MenuItem7})
        Me.MenuItem5.Text = "&View"
        '
        'MenuItem6
        '
        Me.MenuItem6.Index = 0
        Me.MenuItem6.Text = "&Search Candidate"
        '
        'MenuItem9
        '
        Me.MenuItem9.Index = 1
        Me.MenuItem9.Text = "&Update Status"
```

```
        '
        'MenuItem7
        '
        Me.MenuItem7.Index = 2
        Me.MenuItem7.Text = "&Interview Status"
        '
        'MenuItem10
        '
        Me.MenuItem10.Index = 2
        Me.MenuItem10.MenuItems.AddRange(New
System.Windows.Forms.MenuItem()       {Me.MenuItem11,       Me.MenuItem12,
Me.MenuItem35, Me.MenuItem31})
        Me.MenuItem10.Text = "&Employee"
        '
        'MenuItem11
        '
        Me.MenuItem11.Index = 0
        Me.MenuItem11.Text = "&Attendance"
        '
        'MenuItem12
        '
        Me.MenuItem12.Index = 1
        Me.MenuItem12.Text = "-"
        '
        'MenuItem35
        '
        Me.MenuItem35.Index = 2
        Me.MenuItem35.Text = "&Payroll"
        '
        'MenuItem31
        '
        Me.MenuItem31.Index = 3
        Me.MenuItem31.Text = "&Delete ..."
        '
        'MenuItem26
        '
        Me.MenuItem26.Index = 3
        Me.MenuItem26.MenuItems.AddRange(New
 System.Windows.Forms.MenuItem()       {Me.MenuItem27,       Me.MenuItem38,
Me.MenuItem43,      Me.MenuItem28,      Me.MenuItem48,      Me.MenuItem47,
Me.MenuItem44,      Me.MenuItem36,      Me.MenuItem37,      Me.MenuItem39,
Me.MenuItem40,      Me.MenuItem41,      Me.MenuItem42,      Me.MenuItem51,
Me.MenuItem49, Me.MenuItem50})
        Me.MenuItem26.Text = "&Reports"
        '
```

```
'MenuItem27
'
Me.MenuItem27.Index = 0
Me.MenuItem27.Text = "&Employees"
'
'MenuItem38
'
Me.MenuItem38.Index = 1
Me.MenuItem38.Text = "&Daily Attendance"
'
'MenuItem43
'
Me.MenuItem43.Index = 2
Me.MenuItem43.Text = "-"
'
'MenuItem28
'
Me.MenuItem28.Index = 3
Me.MenuItem28.Text = "&Candidates"
'
'MenuItem48
'
Me.MenuItem48.Index = 4
Me.MenuItem48.Text = "Candidates Apply &Today"
'
'MenuItem47
'
Me.MenuItem47.Index = 5
Me.MenuItem47.Text = "&Interview List"
'
'MenuItem44
'
Me.MenuItem44.Index = 6
Me.MenuItem44.Text = "-"
'
'MenuItem36
'
Me.MenuItem36.Index = 7
Me.MenuItem36.Text = "C&lients"
'
'MenuItem37
'
Me.MenuItem37.Index = 8
```

```
        Me.MenuItem37.Text = "&Agents"
        '
        'MenuItem39
        '
        Me.MenuItem39.Index = 9
        Me.MenuItem39.Text = "-"
        '
        'MenuItem40
        '
        Me.MenuItem40.Index = 10
        Me.MenuItem40.Text = "&Prev Month Payroll"
        '
        'MenuItem41
        '
        Me.MenuItem41.Index = 11
        Me.MenuItem41.Text = "Current &Month Payroll"
        '
        'MenuItem42
        '
        Me.MenuItem42.Index = 12
        Me.MenuItem42.Text = "&General Payroll"
        '
        'MenuItem51
        '
        Me.MenuItem51.Index = 13
        Me.MenuItem51.Text = "Individ&ual Total Earnings"
        '
        'MenuItem49
        '
        Me.MenuItem49.Index = 14
        Me.MenuItem49.Text = "-"
        '
        'MenuItem50
        '
        Me.MenuItem50.Index = 15
        Me.MenuItem50.Text = "Available &Jobs"
        '
        'MenuItem29
        '
        Me.MenuItem29.Index = 4
        Me.MenuItem29.MenuItems.AddRange(New
System.Windows.Forms.MenuItem() {Me.MenuItem30, Me.MenuItem76})
        Me.MenuItem29.Text = "&Database"
```

```
        '
        'MenuItem30
        '
        Me.MenuItem30.Index = 0
        Me.MenuItem30.Text = "HRMS Part 1 &BackUp"
        '
        'MenuItem76
        '
        Me.MenuItem76.Index = 1
        Me.MenuItem76.Text = "HRMS Part 2 Back&Up"
        '
        'StatusBar1
        '
        Me.StatusBar1.Location = New System.Drawing.Point(0, 423)
        Me.StatusBar1.Name = "StatusBar1"
        Me.StatusBar1.Size = New System.Drawing.Size(702, 16)
        Me.StatusBar1.TabIndex = 1
        Me.StatusBar1.Text = "HRMS | Develped By: Nura Tijjani Abubakar |
Submitted to: Mr. Ravindran | Oxford " & _
        "Brookes University Project | November, 2007"
        '
        'ContextMenu1
        '
        Me.ContextMenu1.MenuItems.AddRange(New
System.Windows.Forms.MenuItem()        {Me.MenuItem13,        Me.MenuItem20,
Me.MenuItem14,       Me.MenuItem15,       Me.MenuItem16,       Me.MenuItem17,
Me.MenuItem18,       Me.MenuItem19,       Me.MenuItem45,       Me.MenuItem21,
Me.MenuItem72,       Me.MenuItem22,       Me.MenuItem73,       Me.MenuItem54,
Me.MenuItem55,       Me.MenuItem46,       Me.MenuItem75,       Me.MenuItem74,
Me.MenuItem24})
        '
        'MenuItem13
        '
        Me.MenuItem13.Index = 0
        Me.MenuItem13.Text = "&Candidate"
        '
        'MenuItem20
        '
        Me.MenuItem20.Index = 1
        Me.MenuItem20.Text = "-"
        '
        'MenuItem14
        '
        Me.MenuItem14.Index = 2
        Me.MenuItem14.Text = "&Agent"
```

```
'
'MenuItem15
'
Me.MenuItem15.Index = 3
Me.MenuItem15.Text = "&Client"
'
'MenuItem16
'
Me.MenuItem16.Index = 4
Me.MenuItem16.Text = "-"
'
'MenuItem17
'
Me.MenuItem17.Index = 5
Me.MenuItem17.Text = "&Search Candidate"
'
'MenuItem18
'
Me.MenuItem18.Index = 6
Me.MenuItem18.Text = "&Update Status"
'
'MenuItem19
'
Me.MenuItem19.Index = 7
Me.MenuItem19.Text = "&Interview Status"
'
'MenuItem45
'
Me.MenuItem45.Index = 8
Me.MenuItem45.Text = "-"
'
'MenuItem21
'
Me.MenuItem21.Index = 9
Me.MenuItem21.Text = "Atten&dance"
'
'MenuItem72
'
Me.MenuItem72.Index = 10
Me.MenuItem72.Text = "-"
'
'MenuItem22
'
```

```
        Me.MenuItem22.Index = 11
        Me.MenuItem22.Text = "&Payroll"
        '
        'MenuItem73
        '
        Me.MenuItem73.Index = 12
        Me.MenuItem73.Text = "&Delete ..."
        '
        'MenuItem54
        '
        Me.MenuItem54.Index = 13
        Me.MenuItem54.Text = "-"
        '
        'MenuItem55
        '
        Me.MenuItem55.Index = 14
        Me.MenuItem55.MenuItems.AddRange(New
System.Windows.Forms.MenuItem()        {Me.MenuItem56,        Me.MenuItem57,
Me.MenuItem59,       Me.MenuItem58,       Me.MenuItem60,       Me.MenuItem61,
Me.MenuItem62,       Me.MenuItem63,       Me.MenuItem64,       Me.MenuItem65,
Me.MenuItem66,       Me.MenuItem67,       Me.MenuItem68,       Me.MenuItem69,
Me.MenuItem70, Me.MenuItem71})
        Me.MenuItem55.Text = "&Reports ..."
        '
        'MenuItem56
        '
        Me.MenuItem56.Index = 0
        Me.MenuItem56.Text = "&Employees"
        '
        'MenuItem57
        '
        Me.MenuItem57.Index = 1
        Me.MenuItem57.Text = "&Daily Attendance"
        '
        'MenuItem59
        '
        Me.MenuItem59.Index = 2
        Me.MenuItem59.Text = "-"
        '
        'MenuItem58
        '
        Me.MenuItem58.Index = 3
        Me.MenuItem58.Text = "&Candidates"
        '
```

```
'MenuItem60
'
Me.MenuItem60.Index = 4
Me.MenuItem60.Text = "Candidates Apply &Today"
'
'MenuItem61
'
Me.MenuItem61.Index = 5
Me.MenuItem61.Text = "&Interview List"
'
'MenuItem62
'
Me.MenuItem62.Index = 6
Me.MenuItem62.Text = "-"
'
'MenuItem63
'
Me.MenuItem63.Index = 7
Me.MenuItem63.Text = "C&lients"
'
'MenuItem64
'
Me.MenuItem64.Index = 8
Me.MenuItem64.Text = "&Agents"
'
'MenuItem65
'
Me.MenuItem65.Index = 9
Me.MenuItem65.Text = "-"
'
'MenuItem66
'
Me.MenuItem66.Index = 10
Me.MenuItem66.Text = "&Previous Month Payroll"
'
'MenuItem67
'
Me.MenuItem67.Index = 11
Me.MenuItem67.Text = "Current &Month Payroll"
'
'MenuItem68
'
Me.MenuItem68.Index = 12
```

```
        Me.MenuItem68.Text = "&General Payroll"
        '
        'MenuItem69
        '
        Me.MenuItem69.Index = 13
        Me.MenuItem69.Text = "Individual Total Earning"
        '
        'MenuItem70
        '
        Me.MenuItem70.Index = 14
        Me.MenuItem70.Text = "-"
        '
        'MenuItem71
        '
        Me.MenuItem71.Index = 15
        Me.MenuItem71.Text = "Available &Jobs"
        '
        'MenuItem46
        '
        Me.MenuItem46.Index = 15
        Me.MenuItem46.Text = "-"
        '
        'MenuItem75
        '
        Me.MenuItem75.Index = 16
        Me.MenuItem75.Text = "A&dmin"
        '
        'MenuItem74
        '
        Me.MenuItem74.Index = 17
        Me.MenuItem74.Text = "-"
        '
        'MenuItem24
        '
        Me.MenuItem24.Index = 18
        Me.MenuItem24.Text = "E&xit ..."
        '
        'NotifyIcon1
        '
        Me.NotifyIcon1.ContextMenu = Me.ContextMenu2
        Me.NotifyIcon1.Icon
=
CType(resources.GetObject("NotifyIcon1.Icon"), System.Drawing.Icon)
        Me.NotifyIcon1.Text = "HRMS is running ..."
```

```
        Me.NotifyIcon1.Visible = True
        '
        'ContextMenu2
        '
        Me.ContextMenu2.MenuItems.AddRange(New
System.Windows.Forms.MenuItem() {Me.MenuItem25})
        '
        'MenuItem25
        '
        Me.MenuItem25.Index = 0
        Me.MenuItem25.Shortcut = System.Windows.Forms.Shortcut.F12
        Me.MenuItem25.Text = "E&xit"
        '
        'frmMain
        '
        Me.AutoScaleBaseSize = New System.Drawing.Size(5, 13)
        Me.ClientSize = New System.Drawing.Size(702, 439)
        Me.ContextMenu = Me.ContextMenu1
        Me.Controls.Add(Me.StatusBar1)
        Me.FormBorderStyle = System.Windows.Forms.FormBorderStyle.Fixed3D
        Me.Icon          =          CType(resources.GetObject("$this.Icon"),
System.Drawing.Icon)
        Me.IsMdiContainer = True
        Me.KeyPreview = True
        Me.Menu = Me.MainMenu1
        Me.Name = "frmMain"
        Me.StartPosition                                                    =
System.Windows.Forms.FormStartPosition.CenterScreen
        Me.Text = "Human Resources Management System ( H R M S )"
        Me.WindowState = System.Windows.Forms.FormWindowState.Maximized
        Me.ResumeLayout(False)

    End Sub
```

CHAPTER 10

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10. REFERENCES

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