ADMINISTERING WORK FORCE

PROJECT REPORT $P-959$

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE AWARD OF THE DEGREE OF

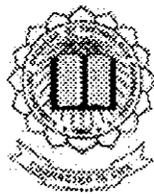M.Sc (APPLIED SCIENCES - COMPUTER TECHNOLOGY)

OF BHARATHIAR UNIVERSITY

Submitted by

Nirmal Dev.B
Reg. No -- 0137Q0044

Guided by

Mr. SivanArulSelvan MSc, MCA, PGDPMIR, ████

Department of Computer Science and Engineering

Kumaraguru College of Technology
(Affiliated to Bharathiar University)

Coimbatore – 641 006

APRIL 2003

TO WHOMSOEVER IT MAY CONCERN

March 22 ,2003

This is to certify that the project entitled **"Adminstering Work Force"** is a bonafide work done in our organization by
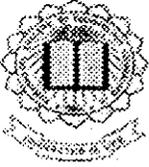
Mr. Nirmal Dev B

in partial fulfillment of the requirement for the award of **M Sc**(Computer Technology) degree in **Kumaraguru College of Technology, Coimbatore** (Affiliated to Bharathiar University) . This project work was completed successfully using **Visual Basic 6.0** and **SQL Server 7.0** during the period December 2002 to March 2003.

For Cosmosoft Technologies Limited

Jossy V Jose
Project Coordinator

KUMARAGURU COLLEGE OF TECHNOLOGY

(Affiliated to Bharathiar University)
Department of Computer Science and Engineering

Coimbatore – 641006

CERTIFICATE

This is to certify that the project work entitled

ADMINISTERING WORK FORCE

Done by

Nirmal Dev.B
Reg. No – 0137Q0044

Submitted in partial fulfillment of the requirement for the award of the degree of
M.Sc (Applied sciences - Computer Technology) of Bharathiar University.

Professor and HOD

Internal Guide

Submitted to University Examination held on 10/05/03

Internal Examiner
aplcste/kct (10-5-03)

External Examiner

DECLARTION

I hereby declare that the project entitled "ADMINISTERING WORK FORCE" was successfully done at M/S COSMOSOFT TECHNOLOGIES LTD, Chennai and submitted to **Kumaraguru College of Technology**, Coimbatore affiliated to Bharathiar University as the project work of **M.Sc (APPLIED SCIENCES - COMPUTER TECHNOLOGY)**, is a record of original work done by me during my period of study in Kumaraguru College of Technology, Coimbatore – 641 006, under the supervision and guidance of., Mr. SivanArulSelvan MSc, MCA, PGDPMIR, █████ ▐ lecturer, CSE Department, *Kumaraguru College of Technology, Coimbatore*. And this project work has not formed the basis of award of any Degree / Diploma / Associate ship / Fellowship or similar title of any candidate of any university

Name : B.Nirmal Dev

Reg. No : 0137Q0044

Signature:

ACKNOWLEDGEMENT

This project in itself is an acknowledgement to the inspiration drive and technique assistance contributed to it by many individuals.

I would like to bring forth my sincere thanks to Dr.K.K.Padmanaban, Principal, Kumaraguru College of Technology, Coimbatore, for allowing me to undertake this project work.

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I owe a great deal to our course coordinator Mr.Dinesh, Asst Prof, Dept of computer science, for his constant guidance.

I greatly thank Mr.SivanArulSelvan, MSc. MCA. PGDPMIR, ████ Class Advisor & Faculty Guide, and Department of Computer Science, who inspired me with his creative suggestions.

I have great pleasure in thanking Mr. A.Y.Reji, Managing Director, Cosmosoft Technologies Ltd., who gave me this opportunity to carry out the project in this esteemed firm, Chennai.

I am at loss of words to express my indebtness to my project head Mr.Jossy and Project coordinator Mr.Anil, for having made my project a success.

I would also like to thank all the staffs of Dept of Computer Science who extended their support in this regard.

Last but not the least I thank everyone who helped me directly and indirectly for completing this project work successfully.

ORGANISATION PROFILE

Cosmosoft Technologies Limited is promoted by a group of well experienced and highly technocrats and professionals in the field of information technology, financial and business management.

CTL owns an independent premises admeasuring 12,000 square feet of fully furnished development center in the heart of Chennai City, at kodambakkam about 10 Kilometers from Chennai International Air Port.

As a professionally managed conglomerate, developing a diversified range of products, CTL is evolving into a global organization that benchmark world class practices.

The strength of CTL is its core professionals with vast experience in all spheres of software research, development and implementation. A well-networked environment with state of the facilities makes CTL distinguishable. Products from CTL bear the tag of innovation and experience.

Cosmosoft Specializes in some areas like

- Enterprise Resource Planning
- Custom application developments
- Cost effective business solutions
- Web developments
- WAP Technologies
- Data warehousing
- Multimedia Projects.

Redefining the norm of software products and development practices, CTL is advancing at a fast pace thereby achieving higher growth rate every year. It assures of the best quality and professional standards for each service that the firm provides.

CTL is committed to achieve a sustained growth in information technology services. Learning from past experiences and adopting latest technological innovations, CTL implement cost effective and value added solutions to its clients to suit their business requirements. Honesty, hard work and dedication to the cause, are its hallmarks.

CTL products are as follows:

- Cosmosoft Integrated Financial Accounting (Cifa)
- Cosmosoft Asset Management Solution (Cams)

CTL services:

CTL focuses on domestic and overseas market with its expertise on cutting edge and proven technologies.

The expertise includes the following:

- E.R.P Solutions
- Business Analysis Services
- Application Maintenance
- Migration and Conversion Projects
- Multimedia Projects
- Network Management
- Manpower consulting / contracting
- Customized Corporate Training

SYNOPSIS

The change of pace in the business environment over the past five decades has triggered a need to revitalize, reinvent, resize in an effort to position them for success. The need is to manage the resources effectively and efficiently to increase the profitability and performance. Today's successful corporations are those that manage the information decisions and thereby enabling the growth and have a competitive advantage.

The entire enterprise must be managed with more global tightly integrate, closed loop solution. This expanded functionality can be called as Enterprise Resource Planning.

Two major types of resources that are to be optimally planned are Human Resources and equipments. In Human Resources Management the functionality provided here should include the employee database, job description and evaluation, applicant tracking, requisition management. Equipment is another critical resource. Online records need to be kept of equipment location and status. Proper accounting methods need to be followed in receipt of location to track unit, state, operation and maintenance cost.

The various areas normally covered under ERP are:

Financial:

Financial accounting, treasury management, enterprise control and asset management are some of the sub divisions.

Logistics:

Production planning, Material management, Plant maintenance, Quality Management, Project area concerning is total quality management (TQM).This should include provision for quality planning required for ISO 9000 certification.

These strategic executive applications are joined together by a facility maintenance management application. Maintenance management is critical in that it must provide a bridge between the both sides to communicate with each other.

Another important resource application is quality control. It provides the ability to monitor and track specification regarding a product or process systems, sales and distribution.

Human Resources:

Personnel Management, Training and Development, Skill Inventory constitutes the HRM.

Work Flow:

Work flow integrates the entire organization with flexible assignments of tasks and responsibilities to locations, positions, jobs groups or individuals. It integrates every employee at his/her workflow.

Benefits of ERP:

- Reduction of lead time by 60%

- 99% on time shipment

- Double business

- Increase of inventory of inventory turns to over 30%

- Cycle time cut 80%

- WIP reduced to 70%

Apart from these tangible benefits the intangible benefits are:

- Better customer satisfaction

- Improved vendor performance

- Increased flexibility

- Reduced quality costs

- Improved resource utility

- Improved information accuracy

- Improved decision-making capabilities

Evolution:

The evolution of ERP solutions has a long history.ERP has become a compulsory addition. Shrinking geographical borders, integrates of countries ever decreasing product life cycle reduced profit margins and the need to raise productivity each of these problems is addressed is by ERP solutions.

In ERP, HRM is a vital part. The HRMS has certain basic modules that could vary as per the industry needs.

The basic modules of HRMS are:

- Recruitment

- Training

- Time & Attendance

- Administering Work Force

Administering Work Force is developed for Cosmosoft Technologies Ltd, Chennai. This software is to keep essential information on employees and the jobs they perform. This information will be used in all areas of human resources.

This module captures personal administration information while recruiting employees. For every employee, a series of personal, employment, and job related information is to be captured.

Other than this data, there are options to enter achievements and awards, disciplinary actions taken, volunteer activities, company assets given etc. All the different attributes such as cadre, Grade, Designation, Cost Centre are entered.

An employee's history with an organization usually involves many job oriented actions, such as promotions, Transfer, rehiring, Termination, and so on.

The application is developed using VB as front end and SQL Server as back end. The system mainly consists of three modules:

- Master

- Process

CONTENTS

1.1 PURPOSE:

System study has set certain well defined objective for efficient functioning of the system. Primary objectives are as follows:-

- To provide users an efficient interface with the computer system it is the point of most contact for the users with the computer system.

- Provide attractive and user friendly input screen.

- Use of composite documents to reduce the no. of different ones.

The design should ensure the accuracy and efficiency of input. If data going into the system is incorrect, then the processing and output will magnify these errors. So the design should satisfy certain condition.

- To achieve the highest possible level of accuracy

- To ensure that the input is acceptable to and understandable by the user staff.

- To have a powerful input media.

Much careful thought has given to the selection of input media. In this system the visual display unit with a powerful GUI is selected as the input device.

It provides:

- Ease of use

- It allows inexperienced users with minimum computer knowledge to operate the system

- Verification methods

- Ease of correction

- Increased processing speed

- To service the interaction request or enquiry made by user

- Managing large volume of personal and job details

- Compatibility with other systems

- Immunization of the system from any event whose occurrence would adversely affect the performance of the system

A computer based system is a combination of many assets or resources like hardware, software etc. to perform some function or to provide some service.

These are three types of loss which an organization does not want its computer system to suffer.

- Loss of availability

- Loss of integrity

- Loss of confidentiality

A threat to a computer system is any event whose occurrence would adversely affect one or more of the resources which make up the system. So it is necessary to take adequate measures which enforce the security of the system.

1.2 SCOPE:

The AWF is an application that encompasses certain basic activities that could form the scope .They are as follows:

- Employee Data Consolidation and categorization

- Updating the large voluminous data from time to time

- Updating the database whenever any action such as the following occur:

  -Employee Promoted

  -Employee Transferred

  -Rehiring or Termination of an employee

- Facilitating the generation of reports automatically

- User should be able to query any relevant information regarding an employee

The application focuses on the workflow management and the personnel management module of the HRM system.

The scope of the software is versatile and extensible, in a web oriented way and in terms of interfacing with the other modules such as Time & Attendance, Training, Skill inventory, and Development.

1.3 DEFINITIONS:

Attribute:

General element to define the Designation, Grade, Cost Center, and Cadre of an employee.

Benefits:

Employee schemes like Provident Fund, State Insurance, and Super Annuation Fund.

Cost Center:

The department, section where the expenses are accounted. An Employee can be in more than one cost center but belongs to a specific department.

1.4 REFERENCES:

(i) Mr. Anil – Project Guide – CTL – ph (044)23723206

(ii) Mr. Joshi – Project coordinator – CTL – ph (044)23723207

1.5 OVERVIEW:

Employee database is vital information to any organization. The system should provide a facility to capture all information and maintain the data of all employees from the time of his recruitment to retirement or resignation. All personal data and job related information are to be captured. This data gathering is very important and is linked to all other modules. This information will be used in all areas of human resources.

The essential requirements of this project are as follows:-

- Accommodate initial capturing of the personal employee information, dependents information.

- Rehiring of existing employees

- Raise promotion notifications

- Raise payroll increment notifications.

- Raise Termination Notifications.

- Keep track of disciplinary actions of an employee.

- Keep track of the availed company benefits of an employee.

- Keep track of company assets maintained by the employee.

- Keep track of the employee work details and the hierarchy of power.

- Keep track of employee's volunteer activities, Achievements and awards.

- Keep track of employee's bank details.

- Keep track of employee's basic tax data.

- Accommodate change of any of the employee's personal details.

- Accommodate transfer of employees from one department to another.

2. GENERAL DESCRIPTION:

2.1 PRODUCT PERSPECTIVE:

The product is designed customarily to suit the client's specifications. Moreover the application provides the user friendly edge. The user will be guided through an error free and efficiently validated system. The system does not allow the user to make any blunder by inputting an invalid data, which may halt or hinder the functioning.

2.2 PRODUCT FUNCTIONS:

The Product functions are better explained in the following DFD's:

LEVEL – 0 – DFD:-

<u>**LEVEL – 1 – DFD:-**</u>

```
                                                    ┌──────────────────────┐
                                                    │ │ Em_Employee          │
                                                    └──────────────────────┘

                                                    ┌──────────────────────┐
                                                    │ │ Em_Job Details       │
                                                    └──────────────────────┘

    ╭─────────╮         ╭─────────╮                 ┌──────────────────────┐
    │  AWF    │────────▶│ MASTER  │─────────────────│ │ Em_Attributes       │
    ╰─────────╯         ╰─────────╯                 └──────────────────────┘

                                                    ┌──────────────────────┐
                                                    │ │ Em_Attributes Details│
                                                    └──────────────────────┘

                                                    ┌──────────────────────┐
                                                    │ │ Em_Benefits         │
                                                    └──────────────────────┘

                                                    ┌──────────────────────┐
                                                    │ │ Em_Bank/Tax         │
                                                    └──────────────────────┘

                                                    ┌──────────────────────┐
                                                    │ │ Em_Assets           │
                                                    └──────────────────────┘
```

AWARDS

ADDITIONAL

BANK/TAX

EXPERIENCE

DISCIPLINARY

DEPENDANT

TERMINATION

AWF

ATTRIBUTES

BENEFITS

JOB DATA

PERSONAL

E-CONTACT

TRANSFER

PROMOTION

REHIRING

t Retrieval

Payroll
Settlement
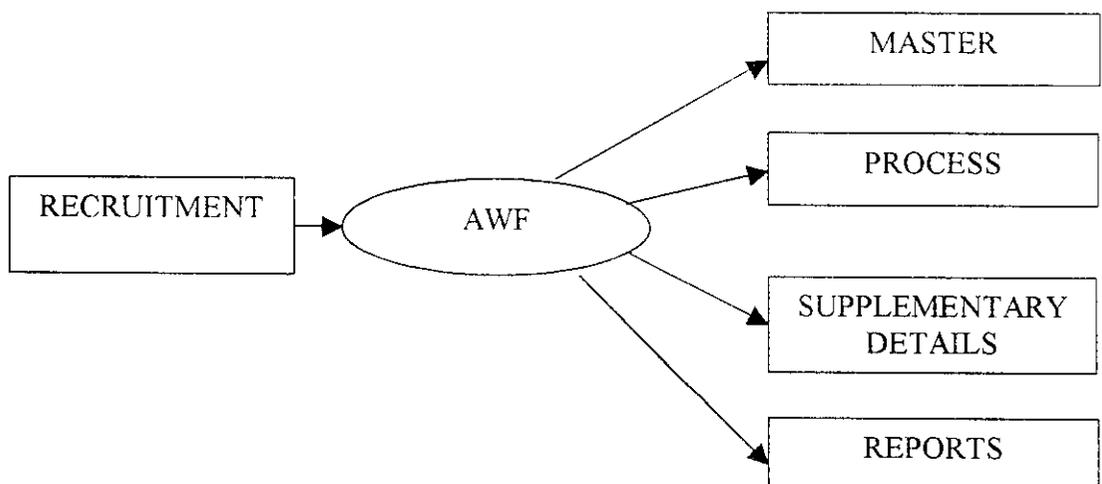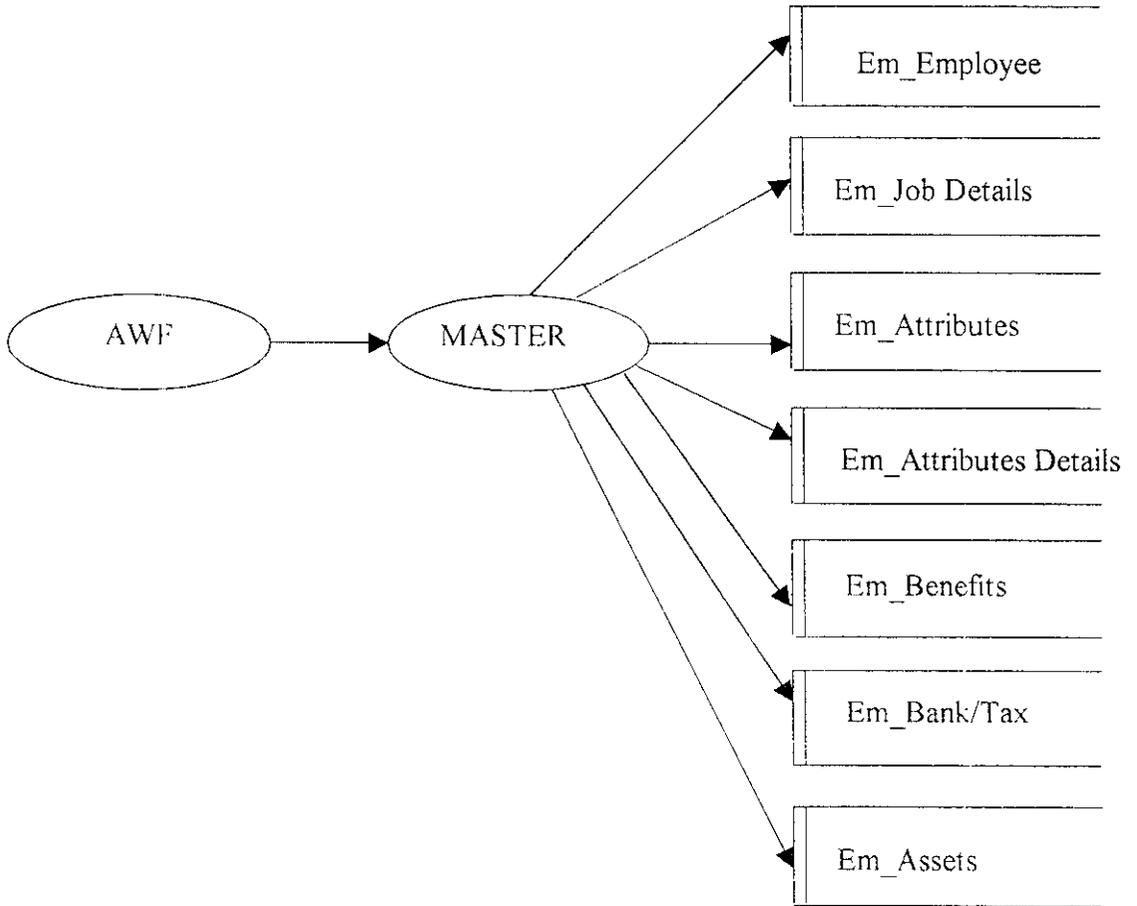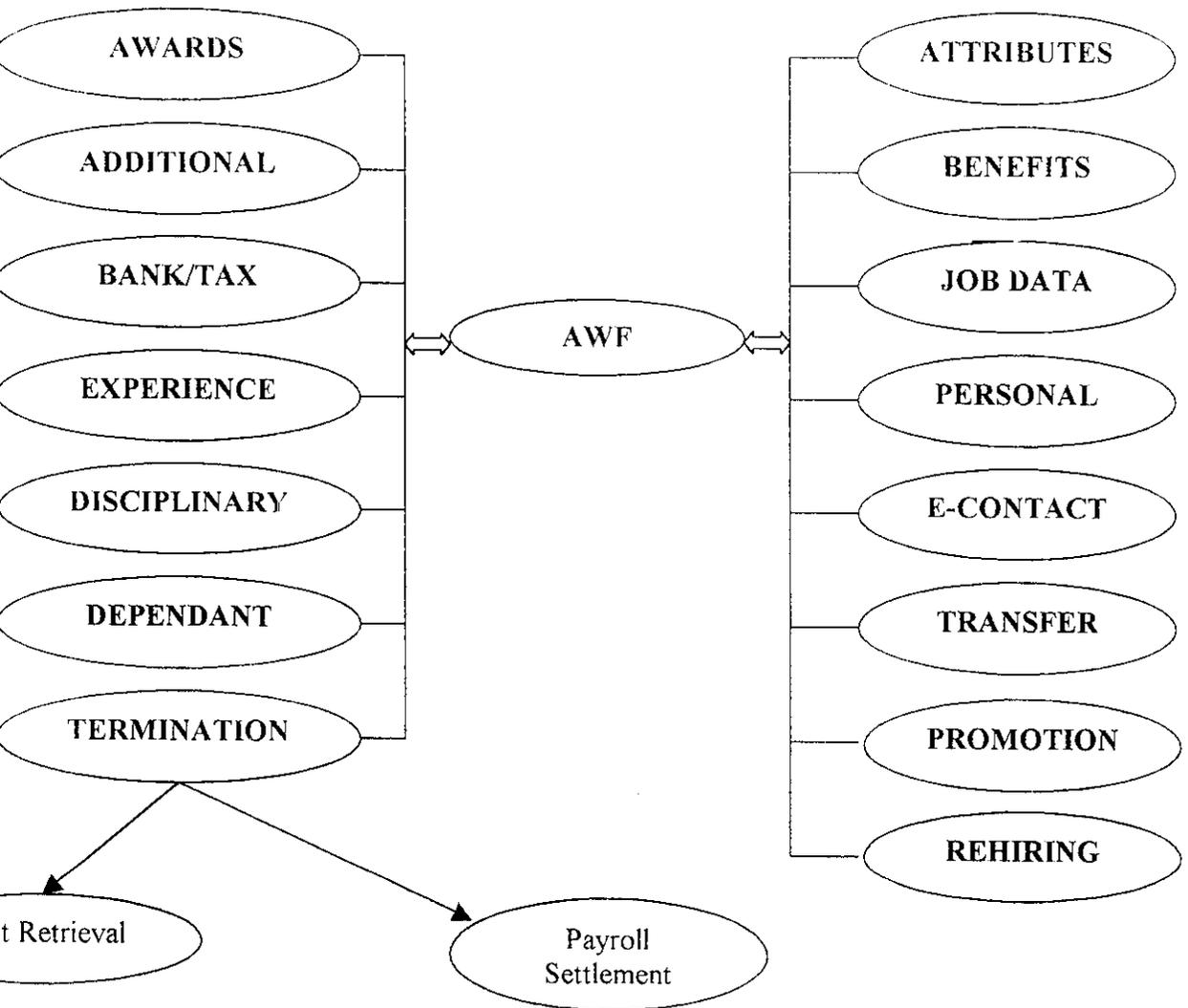
Level – 3 – DFD:-
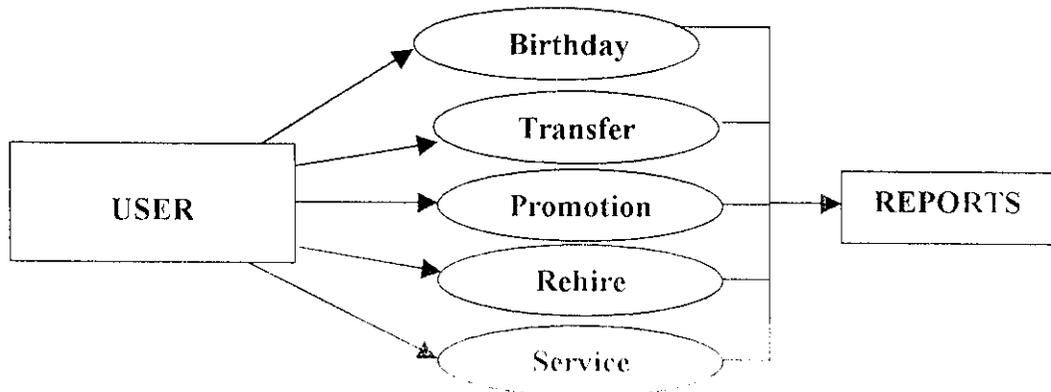
The product basically captures all the information of the employees that are categorized as follows:

MASTER:

-Personal data

-Job data

-Attributes-The attributes can be cadre, designation, cost centre and grade. The Attributes define the number of types of entries that are required.

-Benefits-The benefits could be PF, ESI, SAF or FPF.In an organization there are different types of benefits provided to employees. Each will be having a unique reference number to employee and a corresponding deduction in payroll. Sometimes employer also contributes on the behalf of the employee. Benefits Group defines all different types of benefits available to employee and also the details corresponding to statutory percentage, registration number etc.

-Bank/Tax data

-Emergency contact.

SUPPLEMENTARY DETAILS:

-Achievements & Awards

-Passport details

-Dependant details

-Disciplinary actions

-Previous work experience.

Certain change of activity or work scenario may cause the need for the following functions:

ACTIONS:

-Employee payroll generation.

-Employee Transfer

-Employee Rehiring

-Employee Promotion

-Employee Termination.

REPORTS:

-Employee payroll generation.

-Employee Transfer

- Employee Birthday Listing

-Employee Promotion

-Employee Termination.

2.3 USER CHARACTERISTICS:

The user is essentially a valid user. He is required to know the way to handle mouse and GUI supported windows environment. Moreover he should have minimum reading skills.

2.4 GENERAL CONSTRAINTS:

The user should be a legal one and must know the login id and password. to enable the application. The data of the employee has to be updated every now and then so that the system is effective and efficient in giving back the required responses to the queries of the user.

3. SPECIFIC REQUIREMENTS:

3.1 Functional Requirements:

3.1 1. Introduction:

The overall data of employee is gathered and subsequently stored in respective sections. This is interfaced with other modules such as Recruitment. The Job requirement and Job requisition are the two sets of data that are essential for the generating vacancy positions. Based on the vacancy availability the promotion is effected.

The Front-End – Visual Basic:

The VB is a common RAD tool. It provides the drag and drop custom data-bound controls to create forms and reports with the new data report designer. The access to the enterprise data sources through ODBC, OLEDB, AND ADO 2.0.

AN OVERVIEW OF VISUAL BASIC 6.0

Visual basic is an ideal programming language for developing sophisticated professional applications for Microsoft Windows. It makes use of Graphical User Interface for creating robust and powerful applications. The Graphical User Interface as the name suggests, uses illustrations for text, which enables users to interact with an application. This features makes easier to comprehened things in quicker and easier way.Coding in GUI environment is a quite transition to traditional, linear programming methods where the user is guided through a linear path of execution and is limited to a small set of operations.

In a GUI environment, the number of operations open to the user is much greater, allowing more freedom to the user and developer.

Features such as easier comprehension, user-friendliness, faster application development and many other aspects such as introduction to ActiveX technology and Internet features make Visual Basic an interesting tool to work with.

Visual Basic was developed from the BASIC programming language. In the 1970's, Microsoft started developing ROM based interpreted BASIC for the early microprocessor based computers. In 1982, Microsoft Quick Basic revolutionized Basic and was legitimized as a serious development language for MS-DOS environment. Late on Microsoft Corporation created the enhanced version of BASIC called Visual Basic.

VISUAL BASIC ELEMENTS:

PROJECTS

Project is a collection of all forms, modules and controls that makeup an application while working in the project window. We can open form window for existing form by selecting the form name and clicking view form button. We can open as many forms and modules with in a project as we want, but we can open only one project at a time.

FORMS

When we design a form, it becomes an interface that the user sees on the screen.

CONTROLS

Graphical controls which include the image, label, line and space controls are the usual windows user interface features that are classified as controls, command buttons, option buttons, scroll bars, text boxes, timers etc.

MODULES

Coding in visual basic is stored in modules. There are three kinds of modules namely, class modules, form modules and standard modules.

SCOPE OF THE CONTROLS OF VB

LABEL

Label is used to display the text that the user cannot change.

TEXTBOX

It is used to check a box that the user can easily choose and indicate if something is true or display multiple choices when the user can choose more than one.

FRAME

It is used to create graphical or functional grouping of controls. To group controls, draw the frame first and then draw controls inside the frame.

OPTION BUTTON

A control is used to display on option or more typically, a   group of related options from which we can select only one.

COMMAND BUTTON

It is used to create a button that the user can choose to carryout a command.

PRIVATE

It indicates that the sub procedure is accessible to all procedures in all

SUB

It identifies that the sub procedure is a program visual basic interface consists of the following elements.

PROJECT WINDOW

Lists the form, code, modules and custom control files that make up your current project. A project is the collection of files you use to built an application

LISTBOX

A list box control displays a list of items from which the user can select one or more. List boxes present a list of choices to the user. By default, the choices are displayed vertically in a single column, although you can set up multiple columns as well.

DATA MANAGER

The data manager is a visual application included with visual basic that you could use to create a jet database. Once the database is created you can modified and manipulate it using data controls and data access object. Data control allows access and manipulation with minimal coding. Using data control, we can perform the following tasks.

Establish connection with a database.

Open a database.

Binds fields to controls.

Close the database.

Record set is an object that contains a set of records from the database. There are two types of record set objects:

Table

Dynaset

AN OVERVIEW OF SQL Server 7.0

Microsoft SQL Server version 7.0 is a significant new release of SQL Server. With version 7.0, SQL Server has been redesigned to provide important new server architecture and graphical administration features.

SQL Server Features

Microsoft SQL Server supports a set of features that result in the following benefits:

Ease of installation, deployment, and use :

SQL Server includes a set of administrative and development tools that improve your ability to install, deploy, manage, and use SQL Server across several sites.

Scalability :

The same database engine can be used across platforms ranging from laptop computers running Microsoft Windows® 95/98 to large, multiprocessor servers running Microsoft Windows NT®, Enterprise Edition.

Data warehousing :

SQL Server includes tools for extracting and analyzing summary data for online analytical processing. SQL Server also includes tools for visually

System integration with other server software :

SQL Server integrates with e-mail, the Internet, and Windows.

SQL is an ANSI standard language for accessing databases.

What is SQL?

SQL stands for Structured Query Language

SQL allows you to access a database

SQL is an ANSI standard language

SQL can execute queries against a database

SQL can retrieve data from a database

SQL can insert new records in a database

SQL can delete records from a database

SQL can update records in a database

SQL is easy to learn

SQL is a Standard

SQL is an ANSI (American National Standards Institute) standard for accessing database systems. SQL statements are used to retrieve and update data in a database.

SQL works with database programs like MS Access, DB2, Informix, MS SQL Server, Oracle, Sybase, etc.

Note: Most of the SQL database programs also have their own proprietary extensions in addition to the SQL standard.

Database Tables

A database most often contains one or more tables. Each table is identified by a name (i.e. "Customers" or "Orders"). Tables contain records (rows) with data.

SQL Data Manipulation Language (DML)

SQL (Structured Query Language) is a syntax for executing queries. But the SQL language also includes a syntax to update, insert, and delete records. These query and update commands together form the Data Manipulation Language

(DML) part of SQL:

SELECT - extracts data from a database table

UPDATE - updates data in a database table

DELETE - deletes data from a database table

INSERT INTO - inserts new data into a database table

SQL Data Definition Language (DDL)

The Data Definition Language (DDL) part of SQL permits database tables to be created or deleted. We can also define indexes (keys), specify links between tables, and impose constraints between database tables.

The most important DDL statements in SQL are:

CREATE TABLE - creates a new database table

ALTER TABLE - alters (changes) a database table

DROP TABLE - deletes a database table

CREATE INDEX - creates an index (search key)

DROP INDEX - deletes an index

The SELECT Statement

The SELECT statement is used to select data from a table. The tabular result is stored in a result table (called the result set).

3.2.1 List of Inputs:

The input to the system is a valid user id and password provided by the user. In the application, to update the employee information, mostly the Employee id is used that is auto generated. While in need of reports the user should be able to provide the necessary Employee id, Serial number, Attribute id, or the required date/period.

3.2.3 Information Processing Required:

The information processing may be:

-Raising promotion notifications

When an employee changes salary grades or is assigned to a new designation, process a promotion. This can trigger an increment in payroll and also change on or more other attributes. A grade change can effect designation, reporting to, and work phone number.

-Employee Transfer

A transfer can occur when an employee is assigned a new department without changing designation. Transfers usually imply that there is no change in salary grade. This data can be used for history tracking. Whenever an attribute changes, the current data is stored in this file with effective from date and current changes is wrote in the job data file.

-Rehiring Employee

If an employee is returned to service again, the employee data can be made active. All data related to the employee in his previous term in the organization will be available. Rehiring is possible only if the reason for leaving is Terminated, Resigned, On Leave, and Abroad Assignments

If the data is not achieved, the employee data can be made active again by entering the job data for new position.

-Terminate/Resignation:

The company assets are to be retrieved.

The final Payroll settlement is done.

3.2 PERFORMANCE REQUIREMENTS:

3.2.1 Security:

The product is developed in a way to accommodate only the legal users. No alien user could login or retrieve data or even edit the same. The backup and the very nature of the oracle also supplement the security of the product.

3.2.2 Availability:

The product is available to the respective employee and the HR department only.

3.2.3 Capacity:

The product is capable of handling all the employees of the organization.

3.2.4 Response Time:

The response time is efficiently formatted and is being developed to suit the industry needs and environment.

3.3 Design Constraints:

3.3.1 Standards Compliance:

The product will be ANSI SQL 92 compliant to support multiple databases and is completely functional in all the windows platforms.

3.3.2 H/W limitations:

Memory: Approximately 64 megabytes of on board memory.

I/O   : 2 or 3 button mouse and standard 101-keyboard.

MHz   : At least 166 MHz processor.

3.3.3 External Interface Requirements:

Printer could be interfaced to take hard-copies of certain reports generated by the system.

3.3.4 User Interface:

The user should have a better readability and hence the text should be kept a minimum. Any clickable areas should be large for easier selection. The color choices should be appropriate, to accommodate all categories of users. The user interface sample screens are as follows:

4. Other Requirements:

The program will be completely functional on Windows 95, 98, NT 4.0 Workstation, Windows 2000 professional and ME.

empAttributes

ADMINISTERING WORKFORCE

ATTRIBUTES

ATTRIBUTE TYPE	1
ATTRIBUTE LABEL	CADRE
PARENT TYPE	1
COST CENTER LEVEL NO	1

YOUR CHOICE

ADD

DELETE

CLEAR

SAVE

EXIT

NAVIGATION

I<	<<	>>	>I

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empAttribute Entries

ADMINISTERING WORKFORCE

ATTRIBUTE ENTRIES

ATTRIBUTE ID	C1
ATTRIBUTE DESCRIPTION	CADRE
ATTRIBUTE TYPE	1
PARENT ATTRIBUTE ID	LEVEL 1
SEQUENCE NO	1
REPORTING TO	SELF

YOUR CHOICE

ADD

DELETE

CLEAR

SAVE

EXIT

NAVIGATION

I<	<<	>>	>I

empBank/Tax Data

ADMINISTERING WORKFORCE

BANK/TAX DATA

EMPLOYER_ID	E0090
BANK ACCOUNT_NO	212900956
PAYMENT MODE	CHEQUE
BANK NAME	ICICI BANK
PAN NO	INI00345
RESIDENT	Y
OCCUPATION CODE	OCO53

YOUR CHOICE

- ADD
- SEARCH
- SAVE
- CLEAR
- DELETE
- EXIT

NAVIGATION

I<	<<	>>	>I

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empEmergency Contact

ADMINISTERING WORKFORCE

EMERGENCY CONTACT

EMPLOYEE_ID	E0001
PREFERENCE_NO	1
CONTACT TYPE	1
CONTACT NAME	KAVYA RAGHAV
RELATIONSHIP TO EMPLOYEE	FRIEND
ADDRESS	K K NAGAR
PHONE NUMBER	RAJA ST

YOUR CHOICE

- ADD
- DELETE
- CLEAR
- SAVE
- EXIT

NAVIGATION

I<	<<	>>	>I

ADMINISTERING WORKFORCE

BENEFIT GROUP

		YOUR CHOICE
BENEFITS TYPE	PF	ADD
BENEFITS GROUP ID	1	DELETE
BENEFITS DESCRIPTION	PROVIDENT FUND	CLEAR
COMPANY REF NO	B1	SAVE
ADDITIONAL INFO1	NIL	EXIT
ADDITIONAL INFO2	NIL	
PAY ID	P1	
STATUTORY PERCENTAGE	10.5	

NAVIGATION

| K | << | >> | >| |

ADMINISTERING WORKFORCE

BENEFITS

		YOUR CHOICE
EMPLOYEE ID	E0003	ADD
BENEFIT GROUP ID	4	DELETE
ACCOUNT NUMBER	99874	CLEAR
ADDITIONAL INFO	NIL	SAVE
		EXIT

NAVIGATION

| K | << | >> | >| |

empTransfer

ADMINISTERING WORKFORCE

EMPLOYEE TRANSFER

EMPLOYEE ID	E00022	

YOUR CHOICE

EFFECTIVE FROM	05/06/02
EFFECTIVE DATE	05/06/02
ATTRIBUTE TYPE	1
ATTRIBUTE CODE	C1
REASON	EMERGENCY NEED
REPORTING TO	LEVEL 1
WORK PHONE NO	22445666
STATUS	ACTIVE

- ADD
- DELETE
- CLEAR
- SAVE
- EXIT

NAVIGATION

I<	<<	>>	>I

ADMINISTERING WORKFORCE

PROMOTIONS

YOUR CHOICE

EMP_ID	E0012	CADRE	C3

ADD

ATTRIBUTE_ID	C2	DESIGNATION	D3

DELETE

EFFECTIVE FROM	12/12/02	GRADE	G3

CLEAR

EFFECTIVE DATE	12/12/02	PLACE OF WORK	PHASE V

SAVE

ATTRIBUTE TYPE	2	REPORTING TO	LEVEL 2

EXIT

ATTRIBUTE CODE	A1	WORK TELEPHONE NO	22553301

NAVIGATION

|<	<<	>>	>|

ADMINISTERING WORKFORCE

REHIRE

EMP_ID   [E0055 ▼]

REASON FOR
LEAVING

- ○ TERMINATED
- ○ RESIGNED
- ○ ON LEAVE
- ◉ ABROAD
  ASSIGNMENTS

[ACTIVATE]

YOUR CHOICE

[ADD]

[DELETE]

[CLEAR]

[SAVE]

[EXIT]

NAVIGATION

[K] [<<] [>>] [>I]

ADMINISTERING WORKFORCE

TERMINATION

EMP ID E0078

CADRE C3

GRADE G3

DESIGNATION WRK. CADRE

REASON FOR TERMINATION ABROAD ASSIGNMENT

SEND NOTIFICATION TO ALL DEPARTMENTS

YOUR CHOICE

ADD

DELETE

CLEAR

SAVE

EXIT

NAVIGATION

| I< | << | >> | >I |

Pay Slip Entry Form

Month: Feb-2002
PaySlip No.
Employee Name: T.Suryanarayana Moorthy

GPF A/C No.
Society No.

Earnings

Field	Value
Basic Pay	12484.00
Per.Pay	0.00
P.P.I	0.00
Sel.Pay	0.00
D.A	0.00
A.D.A	0.00
H.R.A	0.00
C.C.A	0.00
D.C.A	0.00
C.A	0.00
Med.Alln	0.00
IR	0.00

Deductions

Field	Value	Field	Value	Field	Value	Field	Value
P.F(S)	0.00	CTD	0.00	P.F.(Adv)	0.00	HBA(Purc)	0.0
FBF	0.00	PLI	0.00	P.F.(Loan)	0.00	HBA(Constr)	0.0
Spl.PF	0.00	LIC1	0.00	F.A	0.00	HBA.Add	0.0
HBA.FBF	0.00	LIC2	0.00	C.A Cycle	0.00	HBA.Inst	0.0
Rent	0.00	LIC3	0.00	C.A Scooter	0.00	HBA.Engl	0.0
Society 1	0.00	C.A Cut	0.00	C.A Car	0.00	HBA.Int.1	0.0
Society 2	0.00	IT	0.00	C.A.Int	0.00	HBA.Int.2	0.0
Shares	0.00	Staff	0.00	Mar.Adv	0.00	Ex.Pay.Rec	0.0
		Misc.1	0.00	Edu.Adv	0.00	Ex.TA.Rec	0.0
		Misc.2	0.00	Sec.Dep	0.00	Bank 1	0.0
		Prop.Tax	0.00	Co-Optex	0.00	Bank 2	0.0
				Court	0.00	Perl.Adv	0.0

Total Earnings : 0   12484
Gross Pay: 0   12484

Total Deductions : 0   12484
Net Pay: 0   12484

Save   Cancel

4. CONCLUSION:

The AWF module performs successfully the storage, updation, and retrieval of the employee's personal, job and other supplementary details. Apart from these basic functionalities the application is used to maintain and enable certain vital actions namely transfer, rehiring, promotion and termination and most importantly pay slip generation. On the whole the scope of the module serves the purpose and fulfills the requirement specification of the project. The implementation is designed in such a way so as to support bug free and seamless integration of the data. Moreover the look and feel of the user interface screens and reports are user friendly and amateuristic in nature.

5. FUTURE ENHANCEMENTS:

The AWF application that is implemented currently does not have the web-enabled facility. The web facility will make the system, more liable to be used in as an, intranet and internet embedded application. To integrate, communicate, and for resource sharing in terms of larger perspective internet will be an up gradation. The system can be enhanced to be used by the users who require only partial rights in usage of the application. The AWF currently is been implemented using SQL Server. Incase, more number of users have to be supported with ultimate security, then ORACLE could be implemented and interfaced with front end. Since the database normalization and structuring is error and conflict free, this up gradation can be done with much ease.

6. BIBILIOGRAPHY:

- **The Complete Reference- VB 6 – Noel Jerke – TMH.**
- **Advanced Database Management – Er.V.K.Jain – Cyber Tech Pub.**
- **Relational Database Design – Jan L. Harrington – Harcourt Ind. Pvt. Ltd.**

SAMPLE TABLES

(NOTE: The recruitment based tables are not included)

EM_EMPLOYEE

FIELD NAME	DATA TYPE	DESCRIPTION
EM_EMPID	VARCHAR(10)	EMPLOYEE ID
EM_EMPNO	VARCHAR(5)	EMPLOYEE NUMBER
EM_NAPREFIX	VARCHAR(10)	NAME PREFIX
EM_NAME	VARCHAR(25)	EMPLOYEE NAME
EM_DOB	DATETIME	DATE OF BIRTH
EM_SEX	CHAR(1)	SEX OF THE EMPLOYEE
EM_ADDRESS1	VARCHAR(30)	ADDRESS 1 OF THE EMPLOYEE
EM_ADDRESS2	VARCHAR(30)	ADDRESS 2 OF THE EMPLOYEE
EM_ADDRESS3	VARCHAR(30)	ADDRESS 3 OF THE EMPLOYEE
EM_CITY	VARCHAR(30)	CITY OF THE EMPLOYEE
EM_FATHERNAME	VARCHAR(25)	FATHER'S NAME
EM_MARITAL_STATUS	CHAR(1)	MARITAL STATUS OF THE EMPLOYEE
EM_MARITALSTATUSDATE	DATETIME	MARITAL STATUS DATE OF THE EMPLOYEE
EM_EMAIL	VARCHAR(30)	EMAIL ADDRESS
EM_CELLPHONENO	VARCHAR(10)	CELL PHONE NUMBER
EM_CONTACTNO1	VARCHAR(10)	CONTACT NUMBER 1
EM_CONTACTNO2	VARCHAR(10)	CONTACT NUMBER 2
EM_BLOODGROUP	CHAR(5)	BLOOD GROUP
EM_RELIGION	VARCHAR(20)	RELIGION
EM_LANGUAGES	VARCHAR(50)	LANGUAGES KNOWN
EM_PREFLANG	VARCHAR(20)	LANGUAGE PREFERRED
EM_COMMENTS	VARCHAR(50)	COMMENTS

EM_JOBDETAILS

FIELD NAME	DATA TYPE	DESCRIPTION
EM_SL	NUMERIC	SERIAL NUMBER
EM_EMPID	VARCHAR(10)	EMPLOYEE ID
EM_JOINDATE	DATETIME	JOINING DATE
EM_PROBATIONPERIOD	NUMERIC	PROBATION PERIOD
EM_CONFIRMDATE	DATETIME	DATE OF CONFIRMATION
EM_CADRE	VARCHAR(10)	CADRE OF THE EMPLOYEE
EM_DESIGNATION	VARCHAR(10)	DESIGNATION OF THE EMPLOYEE
EM_GRADE	VARCHAR(10)	SALARY GRADE
EM_REPTO	VARCHAR(10)	PERSON TO WHOM THE EMPLOYEE IS REPORTING
EM_COSTCENTRE1	VARCHAR(10)	COSTCENTRE 1

FIELD NAME	DATA TYPE	DESCRIPTION
EM_COSTCENTRE3	VARCHAR(10)	COSTCENTRE3
EM_COSTCENTRE4	VARCHAR(10)	COSTCENTRE4
EM_COSTCENTRE5	VARCHAR(10)	COSTCENTRE5
EM_WORKPLACE	VARCHAR(10)	PLACE OF WORK
EM_PAYMODE	VARCHAR(10)	MODE OF PAYMENT
EM_ACCNO	VARCHAR(10)	ACCOUNT NUMBER
EM_BANKCODE	VARCHAR(10)	BANK CODE
EM_PANNO	VARCHAR(30)	PAN NUMBER
EM_RESIDENTYN	CHAR(1)	RESIDENT OR NOT
EM_OCCCODE	VARCHAR(10)	OCCUPATION CODE
EM_RESIGNDATE	DATETIME	DATE OF RESIGNING
EM_REASON	VARCHAR(20)	REASON FOR RESIGNATION
EM_STATUS	CHAR(1)	CURRENT STATUS

EM_ATTRIBUTES

FIELD NAME	DATA TYPE	DESCRIPTION
EM_ATTRITYPE	VARCHAR(1)	WHETHER DESIGNATION, GRADE, CADRE OR COSTCENTRE
EM_ATTLABEL	VARCHAR(20)	ATTRIBUTE LABEL
EM_PARENTTYPE	VARCHAR(1)	PARENT TYPE
EM_SEQUENCENO	INTEGER	HIERARCHY NUMBER USED TO PREPARE ORGANISATION CHART

EM_ATTRIBUTEDETAILS

FIELD NAME	DATA TYPE	DESCRIPTION
EM_ATTID	VARCHAR(10)	ATTRIBUTE ID
EM_ATTDESC	VARCHAR(10)	ATTRIBUTE DESCRIPTION
EM_ATTTYPE	VARCHAR(1)	WHETHER DESIGNATION, CADRE, GRADE OR COSTCENTRE
EM_PARENTID	VARCHAR(10)	PARENT ID
EM_SEQUENCENO	INTEGER	HIERARCHY NUMBER USED TO PREPARE ORGANISATION CHART
EM_REPTO	VARCHAR(1)	TO WHOM EMPLOYEE IS REPORTING ABOUT HIS WORK

EM_BENEFITS

FIELD NAME	DATA TYPE	DESCRIPTION
EM_BENTYPE	VARCHAR(3)	TYPE OF BENEFIT
EM_BENID	VARCHAR(10)	BENEFIT ID
EM_BENNAME	VARCHAR(25)	NAME OF THE BENEFIT
EM_REFERENCE_NO	VARCHAR(10)	REFERENCE NO OF THE BENEFIT TYPE
EM_COMMENTS	VARCHAR(10)	COMMENTS
EM_PAYID	VARCHAR(5)	PAY ID OF THE EMPLOYEE
EM_STATICPERC	DECIMAL(5,2)	PERCENTAGE OF BENEFIT TYPE

EM_EMPBENEFIT

FIELD NAME	DATA TYPE	DESCRIPTION
EM_SERIAL	NUMERIC	SERIAL NUMBER
EM_EMPID	VARCHAR(10)	EMPLOYEE ID
EM-BENEFITID	VARCHAR(10)	BENEFIT ID
EM_ACCNO	VARCHAR(10)	EMPLOYEE'S ACCOUNT NO
EM_COMMENTS	VARCHAR(20)	COMMENTS
EM_ADDPERC	DECIMAL(5,2)	PECENTAGE OF BENEFIT

AD_EMPPASSPORT

FIELD NAME	DATA TYPE	DESCRIPTION
EM_SLNO	NUMERIC	SERIAL NUMBER
EM_EMPID	VARCHAR(10)	EMPLOYEE ID
EM_PASSPORTNO	VARCHAR(10)	PASSPORT NUMBER
EM_ISSUEDPLACE	VARCHAR(25)	ISSUED PLACE
EM_STATE	VARCHAR(25)	STATE
EM_COUNTRY	VARCHAR(25)	COUNTRY WHERE PASSPORT WAS ISSUED
EM_EXPIRYDATE	DATETIME	EXPIRY DATE OF PASSPORT
EM_LICNO	VARCHAR(10)	LICENSE NUMBER
EM_DOI	DATETIME	DATE OF ISSUE
EM_LICENSETYPE	VARCHAR(25)	LICENSE TYPE
EM_LICENSEVALIDDATE	DATETIME	VALIDITY
EM_VOTCDNO	VARCHAR(10)	VOTER CARD NUMBER
EM_VOTERPLACE	VARCHAR(25)	VOTER PLACE
EM_VOTERSTATE	VARCHAR(25)	VOTER STATE

EM WORKEXPERIENCE

FIELD NAME	DATA TYPE	DESCRIPTION
EM_SERIALNO	NUMERIC	SERIAL NUMBER
EM_EMPID	VARCHAR(10)	EMPLOYEE ID
EM_COMPANY	VARCHAR(30)	NAME OF THE COMPANY IN WHICH EMPLOYEE WORKED BEFORE
EM_CITY	VARCHAR(30)	NAME OF THE CITY
EM_STATE	VARCHAR(30)	NAME OF THE STATE
EM_REFERENCE	VARCHAR(30)	REFERENCE
EM_PHONE_NO	VARCHAR(10)	CONTACT PHONE NO
EM_EXPERIENCE	INTEGER	JOB EXPERIENCE
EM_DESIGNATION	VARCHAR(10)	DESIGNATION
EM_SERVICE	NUMERIC(5,2)	SERVICE
EM_GROSS_SALARY	NUMERIC(14,2)	GROSS SALARY
EM_TAXABLE_INCOME	NUMERIC(14,2)	TAXABLE INCOME
EM_TAX_DEDUCTED	NUMERIC(14,2)	TAX DEDUCTED
EM_PF_AC_NO	VARCHAR(10)	PF ACCOUNT NUMBER

EM CONTACTS

FIELD NAME	DATA TYPE	DESCRIPTION
EM_EMPID	VARCHAR(10)	EMPLOYEE ID
EM_PREF_NO	INTEGER	PREFERENCE NUMBER
EM_CONTACT_TYPE	VARCHAR(1)	TYPE OF CONTACT
EM_CONTACT_NAME	VARCHAR(25)	NAME OF THE CONTACT
EM_RELATION	VARCHAR(30)	RELATION WITH THE PERSON
EM_ADDRESS	VARCHAR(30)	ADDRESS OF THE CONTACT
EM_STREET	VARCHAR(30)	STREET NAME
EM_CITY	VARCHAR(30)	NAME OF THE CITY
EM_PHONE_NO	VARCHAR(10)	PHONE NUMBER

EM ACTIVITIES

FIELD NAME	DATA TYPE	DESCRIPTION
EM_EMPID	Varchar(10)	EMPLOYEE ID
EM_ORGANISATION	Varchar(30)	NAME OF THE ORGANISATION
EM_START_DATE	DATETIME	STARTING DATE
EM_END_DATE	DATETIME	ENDING DATE
EM_REMARKS	VARCHAR(30)	REMARKS

EM_ACHIEVEMENTS

FIELD NAME	DATA TYPE	DESCRIPTION
EM_EMPID	VARCHAR(10)	EMPLOYEE ID
EM_SERIAL_NO	INTEGER	SERIAL NUMBER
EM_ACHIEVEMENT	VARCHAR(40)	ACHIEVEMENT
EM_REMARKS	VARCHAR(100)	REMARKS

EM_DIS_ACTIONS

FIELD NAME	DATATYPE	DESCRIPTION
EM_EMPID	VARCHAR(10)	EMPLOYEE ID
EM_SL_NO	INTEGER	SERIAL NUMBER
EM_REP_DATE	DATETIME	REPORTING DATE
EM_DESCRIPTION	VARCHAR(100)	DESCRIPTION
EM_REP_BY	VARCHAR(10)	REPORTED BY
EM_ACTION_TAKEN	VARCHAR(100)	ACTION TAKEN
EM_ACTION_DATE	DATETIME	ACTION TAKEN DATE
EM_REMARKS	VACHAR(100)	REMARKS

EM_DEPENDANTS

FIELD NAME	DATATYPE	DESCRIPTION
EM_EMPID	VARCHAR(10)	EMPLOYEE ID
EM_DEPEND_ID	INTEGER	DEPENDANT ID
EM_DEPEND_NAME	VARCHAR(25)	DEPENDANT NAME
EM_SLNO	NUMERIC	SERIAL NUMBER
EM_RELATION	VARCHAR(30)	RELATION SHIP
EM_DEPEND_DOB	DATETIME	DATE OF BIRTH
EM_OCCUPATION	VARCHAR(30)	OCCUPATION
EM_ED_QLN	VARCHAR(30)	EDUCATIONAL QUALIFICATION
EM_BGROUP	VARCHAR(5)	BLOOD GROUP

EM_SERVICE BOOK

FIELD NAME	DATATYPE	DESCRIPTION
EM_EMPID	VARCHAR(10)	EMPLOYEE ID
EM_REF_NO	VARCHAR(10)	REFERENCE NUMBER
EM_ATTRIBUTE_ID	VARCHAR(10)	ATTRIBTE ID
EM_VALUE	VARCHAR(10)	VALUE
EM_WEF_FROM	DATETIME	WITH EFFECT FROM
EM_WEF_TILL	DATETIME	WITH EFFECT TILL

SAMPLE REPORTS

1. Birthday listing:

BIRTHDAY LISTING FOR THE MONTH OF SEPTEMBER

EMP_ID	NAME	DOB	SEX
E0001	KIRAN KUMAR	9/7/75	M
E0002	SMITHA RAJ	9/10/79	F
E0003	KAVITHA	9/2/75	F
E0058	SANGITHA	9/25/81	F
E0078	HARISH K K	9/5/80	M
E0090	VIJAY KUMAR	9/12/73	M

SELECT THE MONTH FROM THE MENU

PAY SLIP

Run Date : 4/6/2003

SL No.: 3

OFFICE	Salem Division	Branch/Mfg	Salem	Month	Feb-2002
Name of Employee	Udaykumar.P	Designation	ee	G.P.F A/C No	234
Employee Code	900051	Head Quarters	Salem	Society No	343

EARNINGS

Details	Amount	Recoviries	Amount
Basic Pay	24567.00	P.F(S)	0.00
Per. Pay	0.00	F.B.F	0.00
P.P.ii	0.00	SPL. PF	23.00
Spl.Pay	0.00	HBA. FBF	0.00
D.A	23.00	Rent	23.00
A.D.A	0.00	Society 1	0.00
H.R.A	23.00	Society.2	23.00
C.C.A	23.00	Stores	23.00
OCA	323.00		
C.A	32.00		
Med.Aln.	0.00		
I.R	0.00		

DEDUCTIONS

Recoviries	Amount	Recoviries	Amount	Recoviries	Amount
CTD	0.00	P.F(Adv)	0.00	HBA(Purc)	0.00
P.L.I	0.00	P.F.(Loan)	0.00	HBA(Constn)	0.00
LIC 1	23.00	F.A.	32.00	HBA Adl.	0.00
LIC 2	0.00	C.A.Cycle	0.00	HBA Impt.	0.00
LIC 3	23.00	C.A.Scooter	0.00	HBA Enlgt	0.00
CA Cut	0.00	C.A Car	0.00	HBA int. 1	0.00
I.T	0.00	C.A Int.	0.00	HBA int. 2	0.00
SWF	0.00	Mer.Adv	0.00	Ex-Pay Rec	0.00
Misc-1		Edu.Adv.	0.00	Ex-Ta Rec	0.00
Misc-2		Sec.Dep	0.00	Bank 1	0.00
Prop.Tax		CO-Optex	0.00	Bank 2	0.00
		Court	0.00	Pay(adv)	0.00

GROSS	24991.00
DEDUCTIONS	78.00

MDI FORM