

Kumaraguru College of Technology

Department of Computer Science and Engineering

Coimbatore- 641006.

APRIL 2003



COMPANY INFORMATION TRACKING SYSTEM

p-1025

Project work done at

**SRM SYSTEMS AND SOFTWARE LIMITED
CHENNAI**

PROJECT REPORT

**Submitted in partial fulfillment of the
Requirements for the award of the degree of
Master of Computer Applications**

Bharathiar University, Coimbatore

Submitted by

C.SIVAKUMARAN

Reg. No - 0038M1066

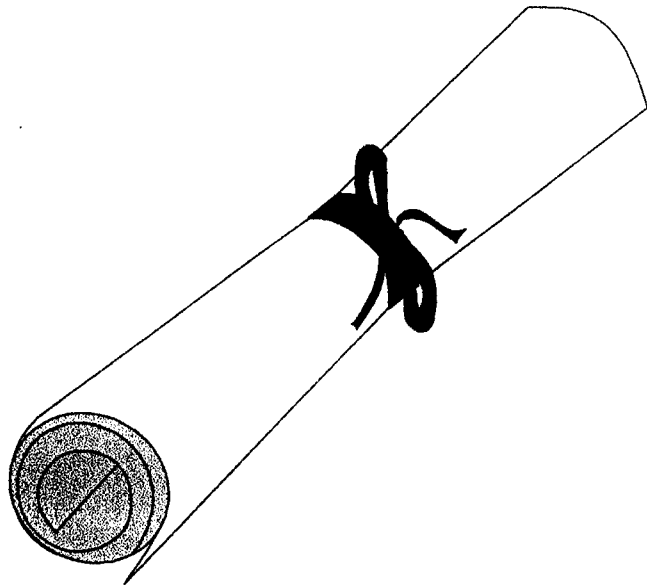
INTERNAL GUIDE

**Ms. N. Rajathi B.E.,
Senior Lecturer**

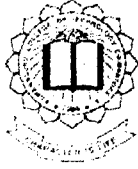
**Dept. of Computer Science & Engineering,
Kumaraguru College of Technology,
Coimbatore.**

EXTERNAL GUIDE

**Mr. K. Prakash M.C.A,
SRM Systems and Software Limited,
Chennai.**



CERTIFICATES



Department of Computer Science and Engineering
KUMARAGURU COLLEGE OF TECHNOLOGY



Coimbatore – 641 006.

CERTIFICATE

PROJECT REPORT 2002 - 2003

Certified that this is a bonafide report of
the project work done by

SIVAKUMARAN.C
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Place: Coimbatore

Date: 16.04.'03

Submitted for viva-voce examination held on

16.04.03

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08-March-2003

CERTIFICATE

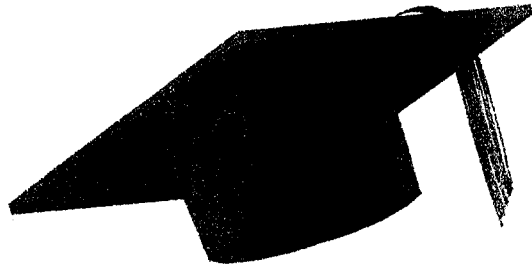
This is to Certify that the Project work entitled “**Company Information Tracking System**” was Analyzed, Designed and Developed by **Mr.C.Sivakumaran (Reg. No.0038M1066)** of **Kumaraguru College of Technology, Coimbatore**, submitted in partial fulfillment of the requirements of degree of **M.C.A.** has been carried out in our organization from December 2002 to March 2003. This project has been developed using **VB.Net & Oracle**.

We wish him success in all his future endeavors.

For SRM Systems & Software

A handwritten signature in black ink, appearing to read 'Plubh', with a long horizontal flourish extending to the right.

Manager - Projects



DECLARATION

DECLARATION

I here by declare that the project work entitled
“COMPANY INFORMATION TRACKING SYSTEM”
submitted to Kumaraguru College of technology, Coimbatore affiliated to Bharathiar University as the project work of **Master Of Computer Application Degree**, is a record of original work done by me under the supervision and guidance of **Mr. Prakash.K. M.C.A**, SRM Systems and Software P Ltd., Chennai and **Ms. N. Rajathi B.E.**, Senior Lecturer, CSE Department, Kumaraguru College of Technology, Coimbatore and the project work has not found the basis for the award of any Degree/Diploma/Associateship/Fellowship or similar title to any candidate of any university.

Place: Coimbatore


Date: 16.04.08



(C.Sivakumaran)

Reg. No: 0038M1066

Countersigned by



(Internal Guide)

Ms. N. Rajathi B.E.,
Senior Lecturer, CSE Department,
Kumaraguru College of Technology,
Coimbatore.



ACKNOWLEDGEMENT

ACKNOWLEDGEMENT

At the outset, I would like to remember the sacrifices made by two people, who have all along been with me, and who are mainly responsible for what I am today – **MY PARENTS**.

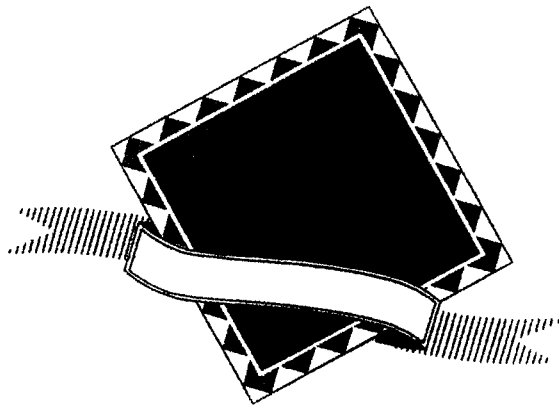
I would like to express my gratitude to our beloved Principal **Dr. K.K. Padmanabhan BSc (Engg), MTech, PhD**, Kumaraguru College of Technology, Coimbatore, for his Constant encouragement throughout my course.

I wish to thank **Prof. Dr. S. Thangasamy PhD** Head, Department of Computer science, K.C.T, Coimbatore, for his invaluable guidance and suggestions that encouraged me to complete this project successfully.

I admit my heart full thanks to my internal project guide **Ms. N.Rajathi BE.**, Senior Lecturer, and our course coordinator, **Mr. A.Muthukumar MCA., M.Phil.**, Department of Computer Science, K.C.T, Coimbatore, for being supportive throughout the tenure of my project.

I am especially thankful to **Mr. K.Prakash**, Project Guide, SRM Systems and Software Limited, for providing me guidance and suggestions throughout the tenure of my Project.

I also take this opportunity to extend my sense of gratitude to all the faculty members, non-teaching staffs of the Computer science Department, K.C.T, Coimbatore, for their guidance and co-operation rendered throughout my course.



SYNOPSIS

SYNOPSIS

Company Information Tracking System is a powerful human resource tool for maintaining employee and company information. It is more than a data storage program it helps in managing the employees. It offers a wide variety of reports that gives us the exact information we need. View payroll information by department, or find anyone who is receiving the company benefits. This project gives us with the power of information with different report categories.

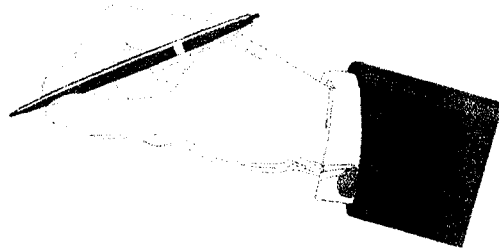
This project allows us to add and remove employees from the program and provides access to all employee information categories from Address history to work information. Organization files keep track of the company information. This project allows previewing and printing different reports that range from individual work history to department headcounts. The system is part of a large Human Resource Management System and shall be responsible for maintaining information about employees, positions, company benefits, departments, new recruit check lists, employee achievements, warnings, evaluation reports, education and training, administration, work changes and several ad hoc reports.



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INTRODUCTION

1. INTRODUCTION

1.1 PROJECT OVERVIEW

The organization has to maintain the information regarding the employees and keep track of the information regarding the employees who are receiving the benefits and what are the benefits available in the organization. The company has also to keep track of the departments, achievement, warnings, evaluation reports, education and training, administration, work changes. These are carried out in five modules such as:

- Employees
- Organization
- Checklists
- Settings
- Reports

EMPLOYEES:

The employee details are captured for every employee at the time of joining the company. The company for their unique identification among the employees gives each employee a unique employee id. This Employee module is used to add new employee, save, delete or modify the employee details. The employee details are stored in the following tables in the backend.

1. Personal details
2. Job details
3. Education
4. Emergency
5. Awards

6. Nominee
7. Experience
8. Skills

The employee details such as his/her employee id, name, and previous experience if any or whether he/she is a fresher, Personal detail, Languages Known, Education details, Emergency contact details, nominee details etc are stored in the respective tables specified above.

Employee details can also be modified to keep the database up to date, by selecting the appropriate employee id or name and this will lead to the display of the employee details where the appropriate modification and stored back to the tables in the backend.

The Employee details can also be deleted from the database when that particular employee is no more working with the SRM Systems and Software P Ltd. The deleted employee's certain details are stored in the table named "Deleted_Records" in the backend.

The reports are also generated for this module.

ORGANIZATION:

This module deals with maintaining the company information. This module includes the following

1. Departments
2. Performance Categories
3. Company Benefits

Departments in this module display all the departments that are in this company. A new department can be added and saved. The Performance

Categories displays all categories based on which the employees are reviewed. A new category can be added and saved. The Company Benefits shows all the benefits that are provided by the company. The benefits are provided for the employees based on their designation. A new benefit can be added and saved; also an existing benefit can be deleted from company benefit. All the modifications are saved at the backend.

CHECKLISTS:

This module provides the details for new employee hires and termination checklist when an employee quits the organization.

SETTINGS:

This module deals with the configuration setting about the company information tracking system and the security settings that are involved in this module. Configuration settings contain the system configuration. It contains options like Program options, History option, Conversion values, Add employee method, Data directory, Date & time configuration, Company information and evaluation scoring. Users can set and unset their choice of pictures, formats, interface and options through this screen. The security menu should allow add/mod/del of user id's and passwords.

REPORTS:

The various kinds of reports generated include

- Certification List
- Address History
- Personal Information
- Achievement List
- Education
- Benefits
- Warnings

- Department roster
- Department Salary Profile
- Service profile

The reports can be viewed on the screen or can be taken as a hard copy. **Sample Screens and reports** are shown in the appendices.

1.2 ORGANIZATION PROFILE:

1.2.1. About the Organization

SRM SYSTEMS AND SOFTWARE P Ltd is a company committed to provide support to small, medium and large corporations in the development and management of software essential to their needs over the entire life cycle of a project or system. All corporations, regardless of size, need to process enormous amounts of data in support of the day-to-day operation of the company and the dependence on a corporate information system and up-grade the existing ones. In seeking efficient and cost-effective approaches to manage change, many companies have found outsourcing to be particularly attractive.

1.2.2 Services

SRM Systems and Software P Ltd through its Strategic Business Units offer the following services.

Customized Software Development

SRM can provide complete business turn key solutions to small, medium and large size companies spanning every phase of the software life cycle: System Analysis, Design, Implementation, Testing, Installation and Maintenance. The SRM staff has an accumulated experience of more than 300 man-years in varied application areas. SRM offers software services in the following technology areas:

- Web Based Applications and e-commerce
- Client-Server (two-three and n-tier Technology)
- Group Ware and Workflow



*SYSTEM STUDY
&
ANALYSIS*

2. SYSTEM STUDY & ANALYSIS

2.1 . EXISTING SYSTEM:

The existing system is being designed only for the admin people and can be accessed only by the administrative level. The manual work also occupies a lot of time and sometimes it leads to delay also. The generation of report is difficult.

2.2. PROPOSED SYSTEM:

The proposed system is being designed in a way to allow employees to view the information regarding the employee and allow the receptionist to view the information regarding the employee. The proposed system has facilities to record the achievements and evaluation reports of the employees. It also has the features that are available in the existing system and they are made more users friendly. The reports are more specific and informative than the existing system.

2.3. FEASIBILITY STUDY:

Feasibility study is a system proposal according to its work ability, impact on the operation, ability to meet user needs, and efficient use of resources. Three key considerations are involved in the feasibility

- Economical
- Technical
- Behavioral

ECONOMICAL FEASIBILITY:

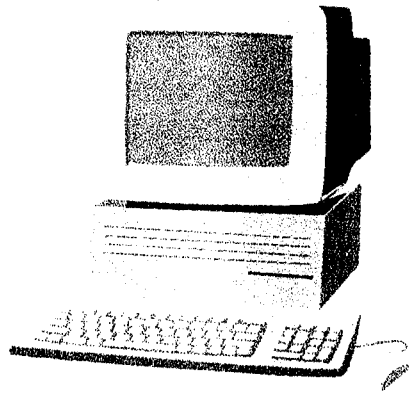
Economic Analysis is the most frequently used method for evaluating the effectiveness of the software, most commonly known as cost (Benefit analysis). The procedure is to determine the benefits and savings that are expected from an employee system and compare them with costs. If the benefits outweigh costs, the decision is made to design and implement the system, otherwise further alterations will have to be made. This made aims at reducing time, effort and cost. The project is cost-effective because of its accuracy, faster and user-friendly nature.

TECHNICAL FEASIBILITY:

Technical feasibility emphasis on the existing computer systems (hardware, software) and to what extent it can support the proposed system. The facilities of the package are available to meet the user demands. This acquires user-friendliness and for scientific applications, GUI is desired. The GUI chosen for this package is Visual Basic.net. It will support the backend database Oracle 8i.

BEHAVIORAL FEASIBILITY:

People are inherently resistant to change and computers have been known to facilitate such change. Since the system is user-friendly, user training can be done easily and effectively. Visual Basic.net is a GUI, so anyone can easily use it without prior knowledge of Visual Basic.net.



*PROGRAMMING
ENVIRONMENT*

3. PROGRAMMING ENVIRONMENT

“Company Information Tracking System” has been developed under the following Hardware/Software configuration. Also why the particular software has been chosen and its features are also specified.

3.1 HARDWARE CONFIGURATION:

- Pentium IV Processor – 1.4 GHz
- 256 MB ram for optimum
- 20 GB hard disk
- Scroll mouse
- Internet Keyboard.

3.2 SOFTWARE CONFIGURATION:

- Windows 2000 Server.
- VB dot net
- Oracle 8i
- Visual Studio Dot Net (for IDE)

3.3 ABOUT THE SOFTWARE:

This system has been developed in **Visual Basic .Net** as Front End and **Oracle 8i** as Back End. The description of the VB.net & Oracle is as follows.

VISUAL STUDIO.NET – AN OVERVIEW

Visual Basic .NET has many new and improved features such as inheritance, interfaces and overloading that makes it a powerful object oriented programming language. Using this we can create multithreaded, scalable applications using explicit free threading.

Other new features in Visual Basic.NET are

- Structured exception handling.
- Custom attributes.
- Common Language Specification (CLS) compliance.

As a visual basic user, we can access classes, components and objects from other CLS-compliant programming language

Oracle 8i

Oracle is one of the most powerful, secure and popular RDBMS (Relational Database Management System) available. The Oracle server provides efficient, reliable secure data management for applications ranging from high volume on-line transaction system to query intensive data warehouse application. Oracle not only supports the complex data management, but it is also provides the tools to manage the systems, flexibility to distribute the data to users effectively.

Reasons for using Oracle 8i

There are many features available in it that makes it the primary choice selection as the backend.

❖ Powerful Flexible SQL Language

Oracle offers a number of robust SQL extensions that allows complex operations to be expressed in SQL, improving developer productivity by reducing the need for procedural code.

❖ Shared Compiler SQL

Stored procedures in database triggers are stored in compiled form, allowing them to execute directly without recompilation or parsing , resulting in an optimum runtime performance.

❖ Sophisticated SQL Optimizer

Oracle's numerous, powerful query processing techniques are completely transparent to the end user. Oracle optimizer dynamically

determines the most efficient access paths and joins methods for everyday query.

❖ **Productive Application development**

Oracle's stored procedures and triggers improve application development, scalability and productivity by allowing common procedures to be developed once and maintained in a central location instead of in every application.

❖ **Mirrored, multisegment log**

Oracle also supports read only table saving time by eliminating backup and recovery of static data. Oracle includes a number of features that promote high availability in the presence of media failures or error mirrored, multisegment log ensures that critical log data remains available if all log devices fails.

❖ **Transparent distributed Query**

With oracle, a simple SQL statement can query data from multiple databases and even perform complex join of data physically stored in different servers. Location transparency allows the application to be developed without knowledge of the location of the data.

❖ **Reliable Query results**

Oracle effectively supports mixed workload environment characterized query or update activity always provide users with consistent query results, while never imposing a performance penalty on concurrent update activity.

❖ **Superior scalability for transaction processing**

The architecture of oracle provides OLTP applications with scalability to support large number of users and high volumes of transaction workloads. OLTP applications take processors or machines, such as in the case of a clustered environment, which improves individual transaction response times and overall system throughput.

*SYSTEM DESIGN
&
DEVELOPMENT*

4. SYSTEM DESIGN & DEVELOPMENT

The process of design involves “conceiving and planning out in the mind “and” making a drawing, pattern or sketch of”. The design is concerned with identifying software components, the general modular structure of the software, the function provided by each module and the internal data streams and stores that make up the interface between modules.

4.1 INPUT DESIGN :

Input plays the most important role in the completion of the system. Input forms the core of the process, which will be carried out in the system. Thus detailed study has to be done in identifying the inputs that are required for various processes which are to be carefully analyzed and care has to be taken to avoid recurring of the same inputs. Input design is the process of converting user-originated inputs into computer-based format. The goal of designing input data is to make data-entry as easy as possible and error-free. Web-designed input serves 4 purposes

- To control work flow
- To reduce redundancies in recording data
- To allow easier checking of data
- To increase clerical accuracy

When data is kept into the system, the operator must receive the data in a form that can be easily understood. It should be simple, clear, precise and easier to operate and store. It should be self-explanatory and provide sufficient information to the user for ease of entry of inputs. Forms are designed for retrieving inputs from the user. It is used to enter data and it allows correcting the incorrect entry of data.

The system is a menu driven one. This simplifies the computer data access or data entry. The data that can be accessed by each user can be specified so that,

the reports will be restricted to that level only. In fact, the system allows the definition of data access rights for each user for each function. This ensured that only the right user gets the information. The database operations like Save, Modify, Delete, Update, List, Quit has been taken care of in all the forms. These are in the form of buttons. If the user clicks the save button, the information entered recently could be added to the database. If the user clicks the modify button, he/she is allowed to modify the existing information. If the user clicks the delete button, he/she is allowed to delete the existing information. The update button is used to update the particular operation. The list button when clicked, lists the existing database entries. If the quit button is clicked, that particular screen will get exited at any point of time with no restrictions. The validation for each input column is done whenever the user the user tries to move out of the input column. However, validation is not done if the user tries to move to the previous column. After each database operation, the successful completion of the operation is checked.

The system engages the user in an interactive dialogue. The system is able to extract the missing or omitted information from the user by directing the user through appropriate dialogues.

4.2 OUTPUT DESIGN :

The main idea of developing this software system is to generate various outputs in necessary format, which will aid in planning and decision-making. The outputs should include all the necessary details and the required information. The primary consideration in output design is to arrange the data in a form, which is convenient to the user. The layouts of the form should be pleasing care should be taken that the prompts and icons are positioned at the correct place. Also the size of the form should be appropriate depending on its contents. Whenever error messages are displayed it should be as long as possible and meaningful. All headers and displays should be relevant to the message. Error messages should not contain any programming related terminology.

This system helps to provide two types of outputs, one is Document based and the other one is report based. All the document-based outputs can be taken through the print option of the appropriate form. The output just gives information available in the form. Also this output can be viewed either in screen or it can be taken as a hard copy. Provision is available to make the choice.

The other type of output is report based. This is having explicit option in the main menu through which detailed report can be arrived. This can also be viewed in the screen or can be taken as hard copy. Some of these kinds of output titles are listed here:

- ❖ Employee Reports
- ❖ Certification List
- ❖ Address History Report
- ❖ Achievements Report
- ❖ Benefits Report
- ❖ Warnings Report
- ❖ Evaluation Report

4.3 DATABASE DESIGN :

Before the database concepts became operational, users had programs that handled their own data independent of other users. It was a conventional file environment where data integration or sharing of common data source applications was possible. In a database environment, common data is available across several applications and are used by several users. Instead of each program managing its own data, authorized users share data across applications with database software managing the database as an entity.

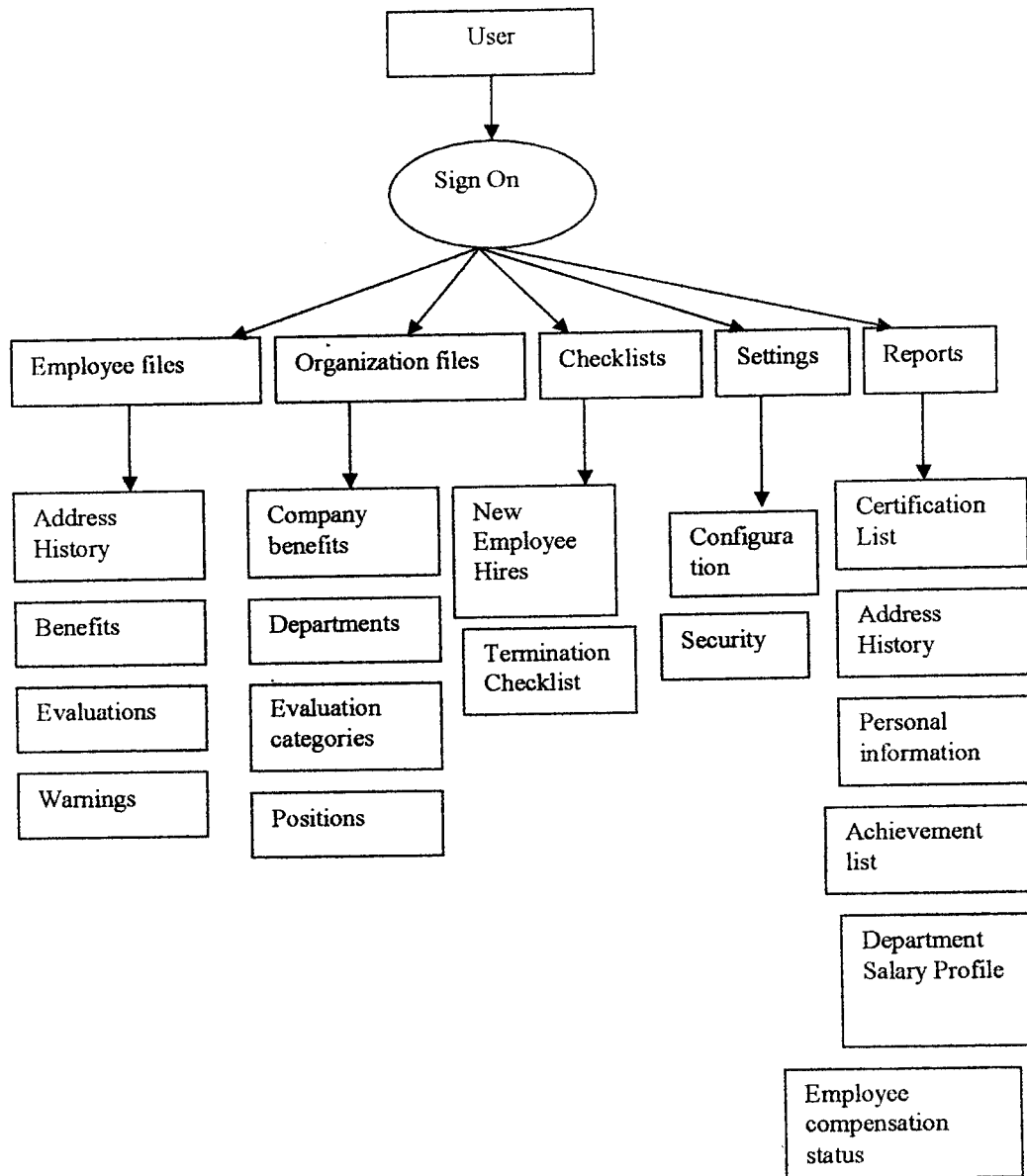
Data structuring is refined through a process called Normalization. Data are grouped in the simplest way possible, so that later changes can be made with a minimum of impart on the data structure.

Normalization is the process of simplifying the relation between data elements in the record. Through normalization, a collection of data in a record structure is replaced by successive record structures. They are simple and more predictable and therefore manageable.

Various objectives are considered for designing the database such as,

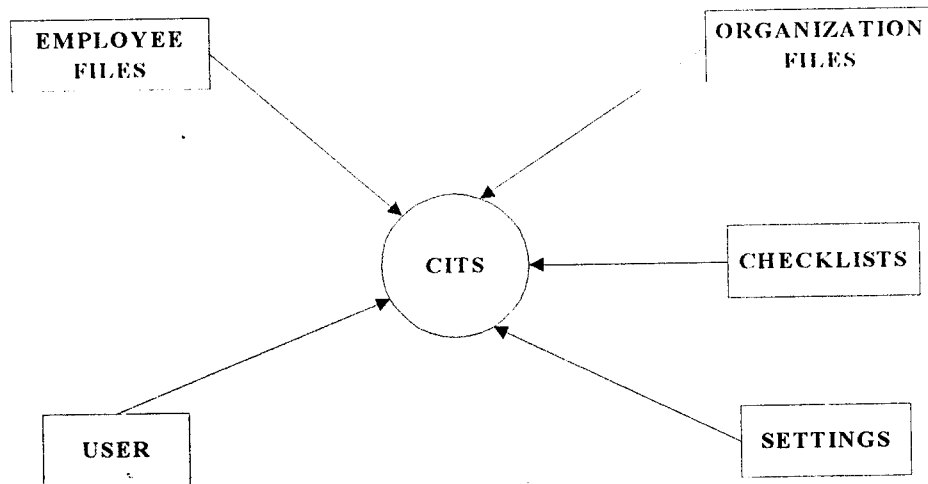
- ◆ Control of data integrity
- ◆ Control of redundancy
- ◆ Control of data security
- ◆ Data independence
- ◆ System performance
- ◆ System compatibility

4.4 MODULE DESIGN:



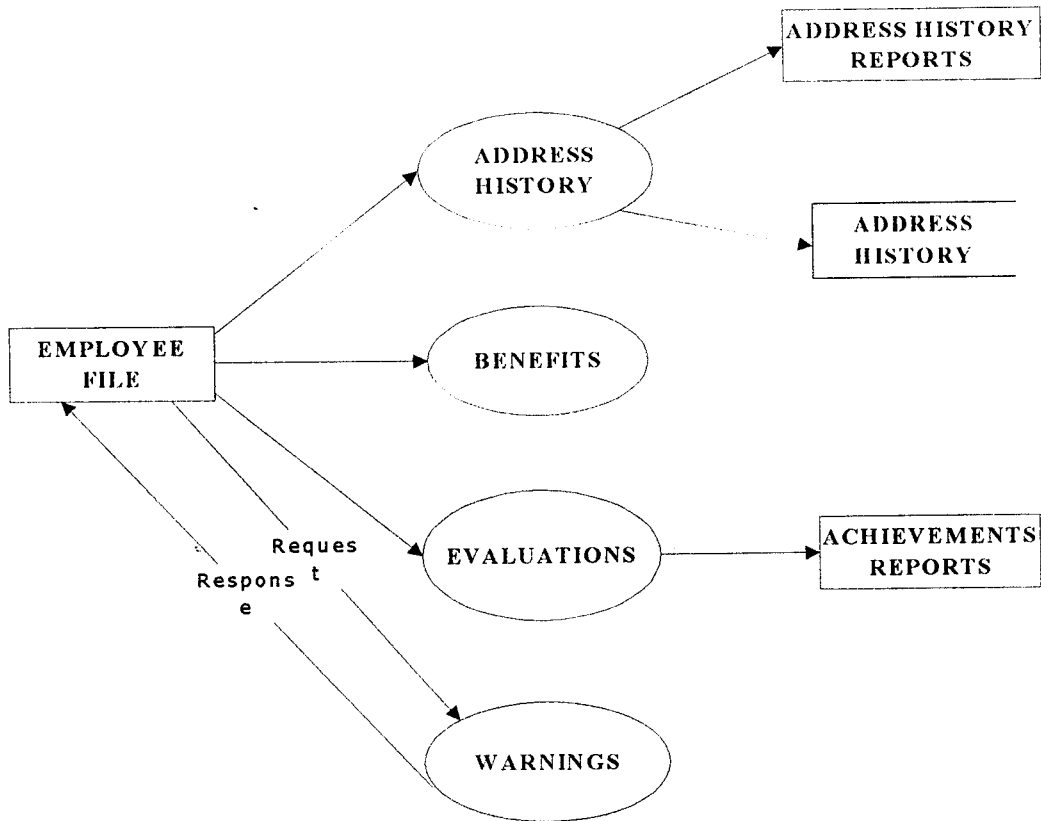
4.5 PROCESS DESIGN:

4.5.1 CONTEXT DIAGRAM

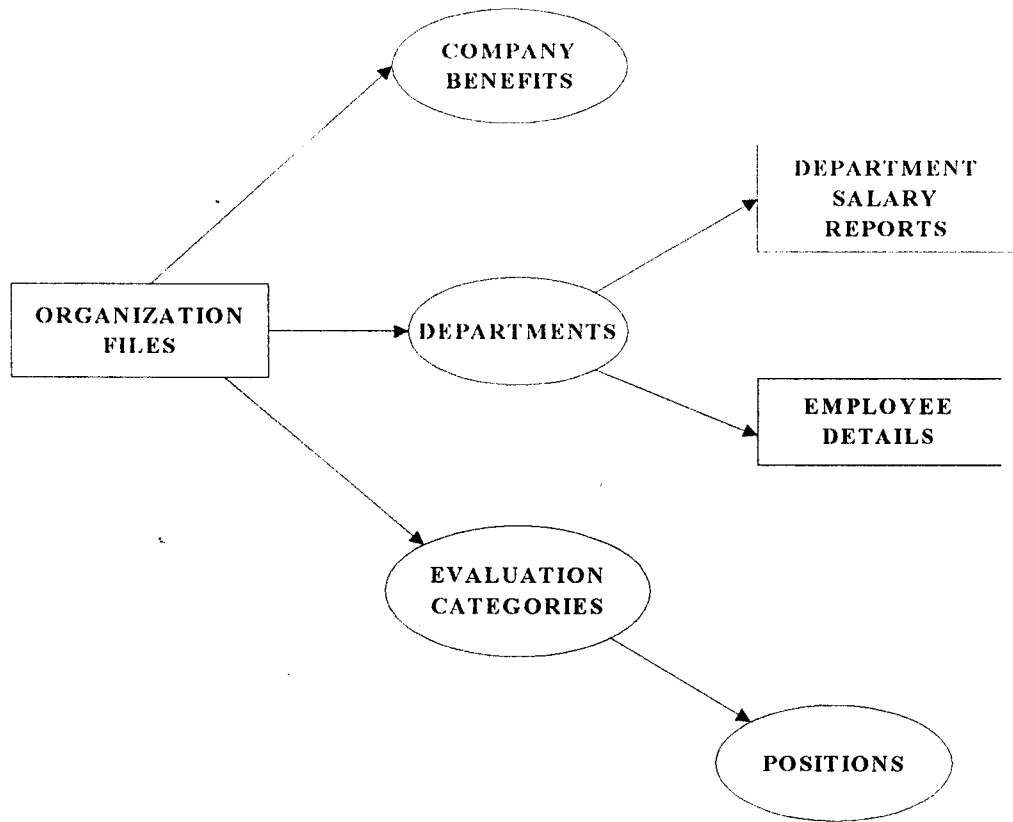


4.5.2 DATA FLOW DIAGRAM

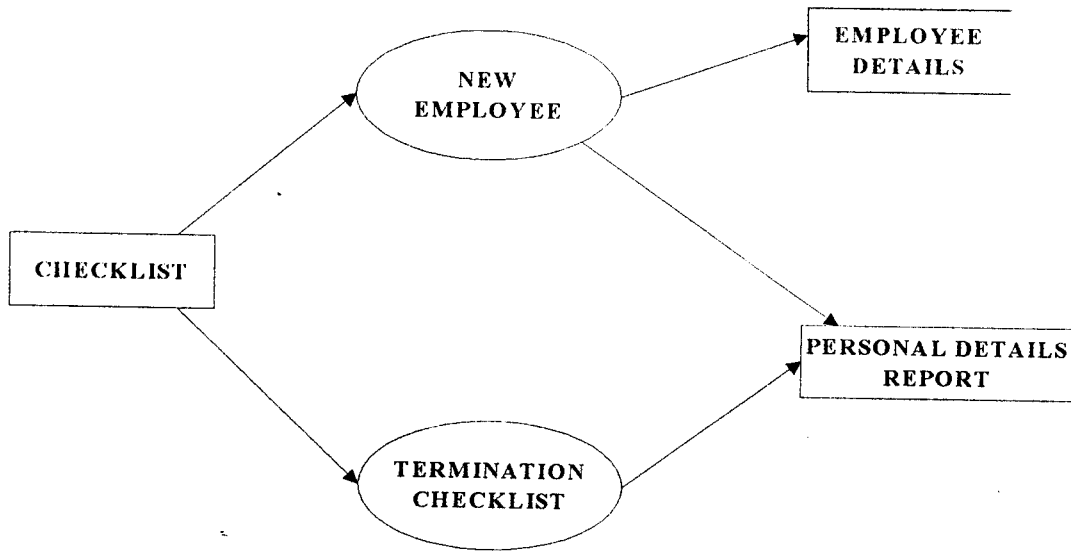
4.5.2.1 EMPLOYEE FILE



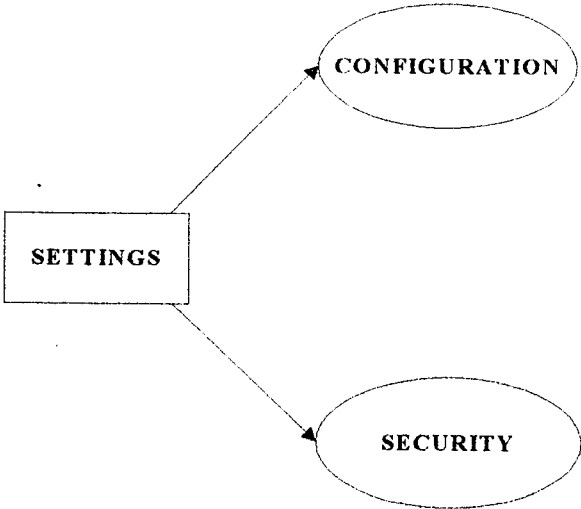
4.5.2.2. ORGANIZATION FILES



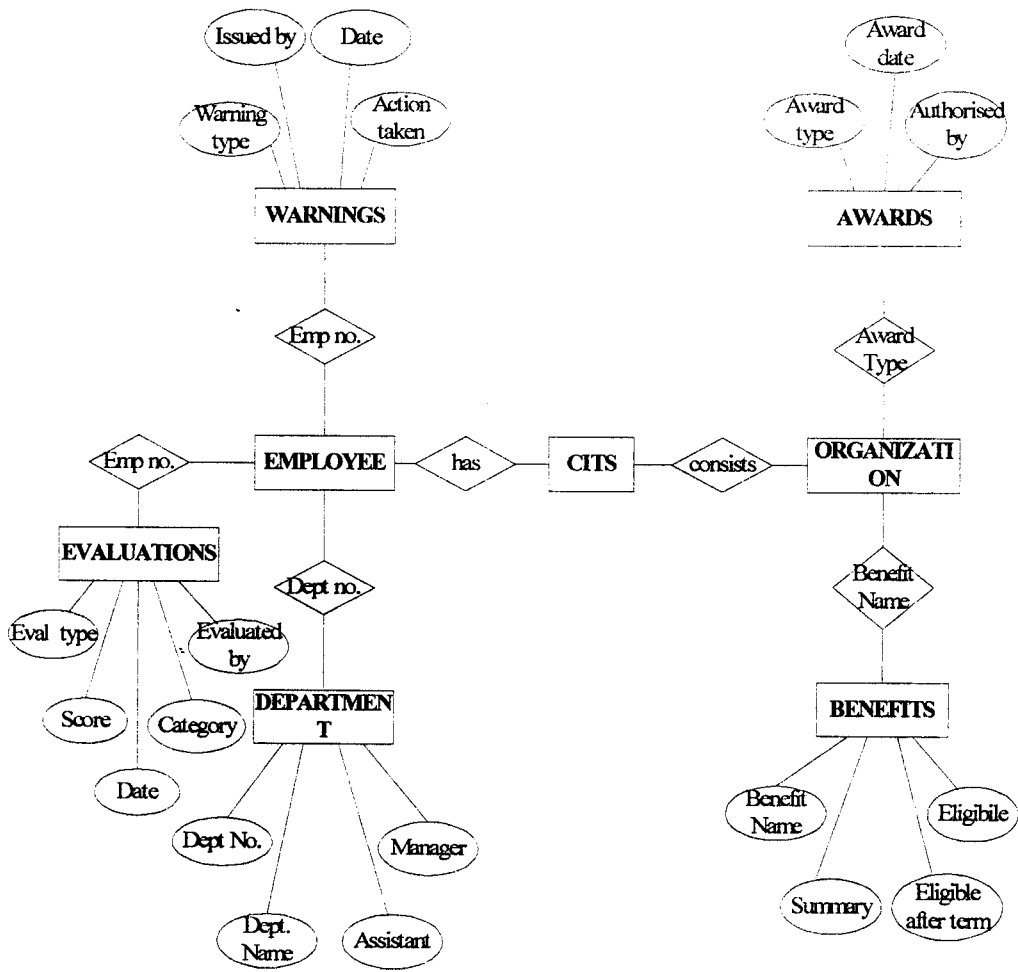
4.5.2.3. CHECKLIST



4.5.2.4. SETTINGS

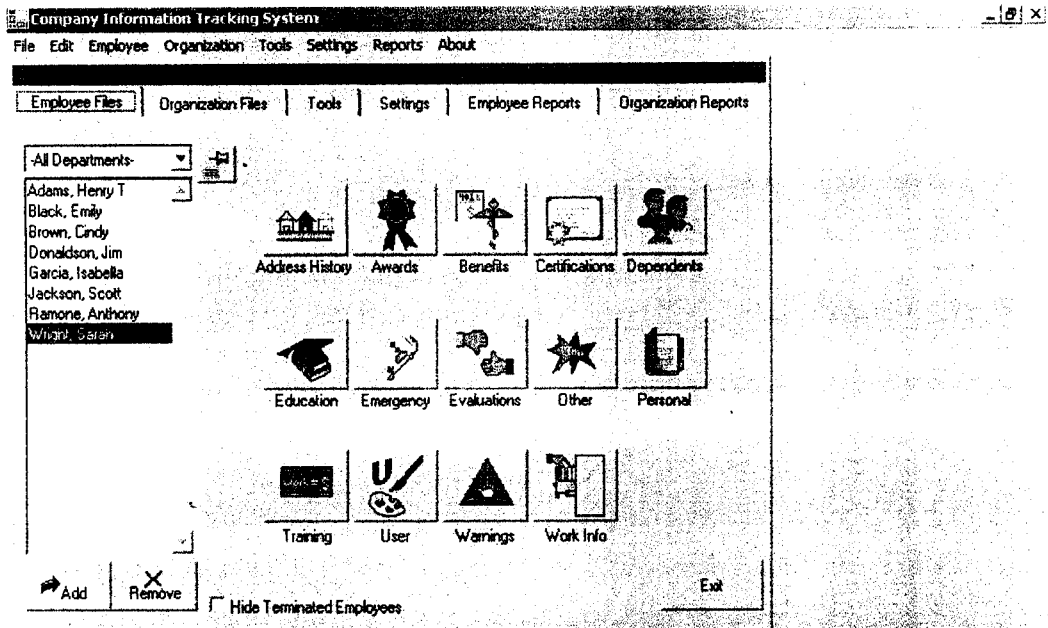


4.6. ENTITY RELATIONSHIP DIAGRAM

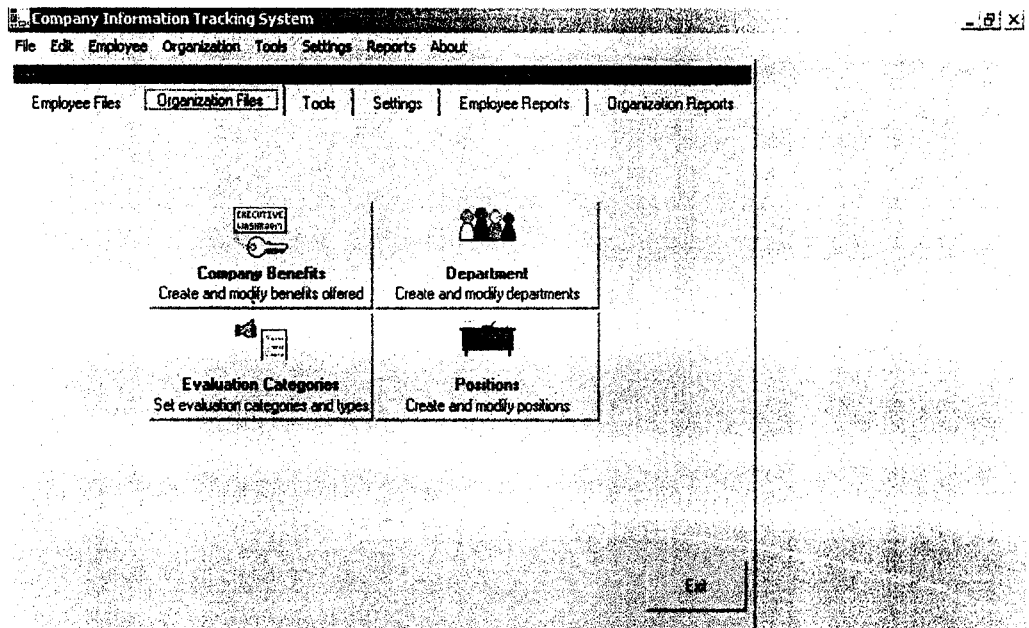


4.7. SAMPLE SCREENS

EMPLOYEE FILES SCREEN:



ORGANIZATION FILES SCREEN:






PERSONAL INFORMATION SCREEN:




Company Information Tracking System _ | | X

File Edit Employee Organization Tools Settings Reports About

Personal Information - Sarah Wright - Sales _ | | X

First Name	Sarah	Mobile Phone	
Last Name	Wright	E-Mail	
Middle	.	Marital Status	Single
Date of Birth	09/05/1969	Former Name	
Sex	Female	Marriage Date	
SSN	555-55-5555	Spouse's Name	
Home Phone	555-5555	Spouse's SSN	
Work Phone	666-1212	Spouse DOD	

ASSIGN EVALUATION CATEGORIES SCREEN:

Company Information Tracking System

File Edit Employee Organization Tools Settings Reports About

Assign Evaluation Categories

Evaluation type: Weekly Review

Edit Add Remove

Category	Max score
Stability	10
Quantity	10
Perseverance	10
Orderliness	10
Judgment	10
Initiative	10
Cooperation	10
Attendance	10
Appearance & Habits	10
Accuracy	10

← →

Unused evaluation categories

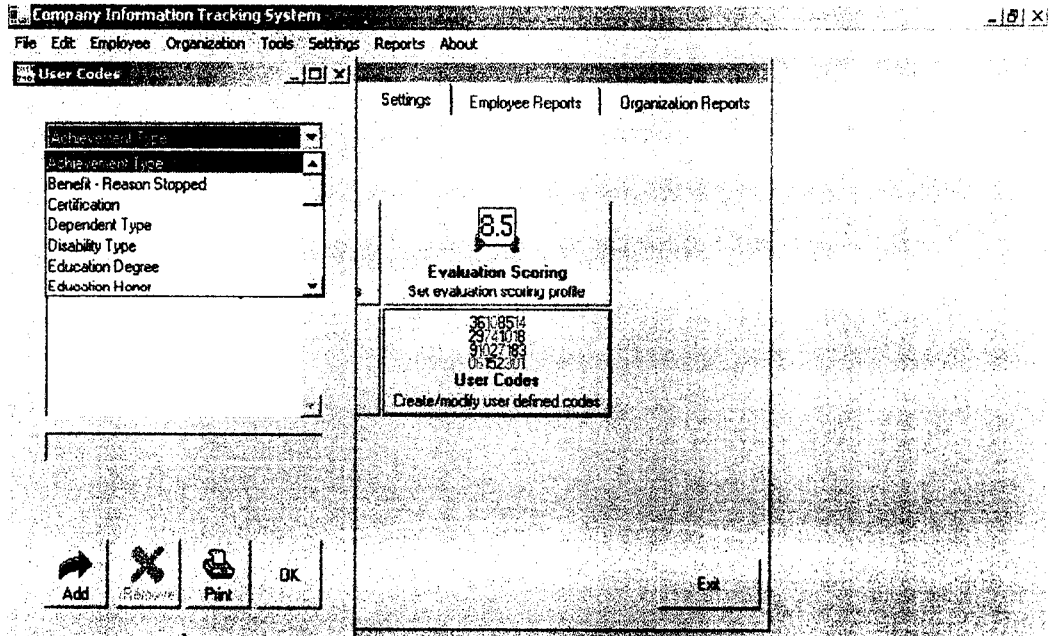
- Courtesy
- Innovation
- Knowledge
- Reliability

Modify evaluation categories...

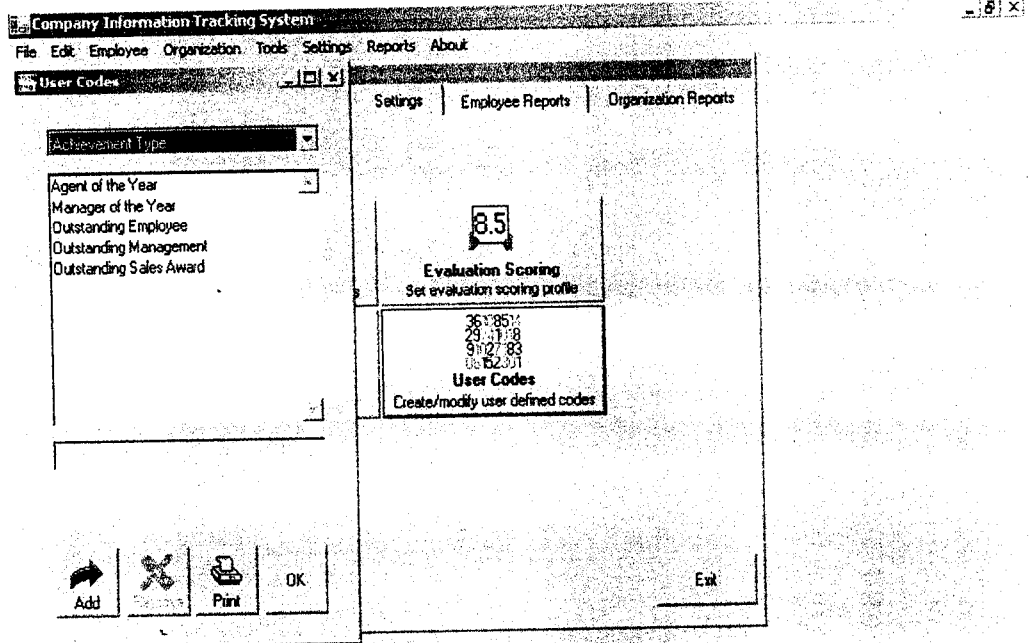
Total evaluation points: 100

Print OK

ACHIEVEMENT TYPE SCREEN:



USER CODES SCREEN:



WORK INFORMATION SCREEN:

Company Information Tracking System

File Edit Employee Organization Tools Settings Reports About

Work Information - Emily Black - Sales

Current Work Information

Department	Sales	Compensation	35,000.00	Annually
Title	Ms.	Reason Changed	Merge Department	
Position	Senior Sales Rep	Supervisor	Cindy Brown	
Job Status	Full Time	Job Description		
Date of Hire	09/05/2000			
Date Effective	01/19/2003			

Work History Add Remove

Date From	Date To	Reason	Position	Pay Amount	Pay Rate	Department
09/05/2000	01/19/2003	Hired	Senior Sales Rep	30,000.00	Hourly	Sales

Create Work History Automatically
 Print OK

4.8. DATABASE SCHEMA:

Awards:

Field name	Datatype	Description
Award_type	Varchar2(1)	Unique identification describes the award type
Award_date	Date	Date awarded
Awarded_By	Varchar2(30)	Person who awarded

Company_Benefits:

Field name	Datatype	Description
Benefit_name	Varchar2(25)	Unique identification of the benefit
Eligible	Varchar2(10)	Whether the person is eligible for the benefit
Eligible_after_term	Varchar2(10)	The eligibility tenure of the benefit
Summary	Varchar2(25)	Description about the benefit

Current_Benefits:

Field name	Datatype	Description
Benefit_name	Varchar2(25)	Unique identification of the current benefit
Eligible_Date	Date	Eligible date of the current benefit
Date_enrolled	Date	Date on which benefit is enrolled
Date_stopped	Date	Date on which the benefit is stopped
Reason_stopped	Varchar2(25)	Reason for which the benefit is stopped

Department:

Field name	Datatype	Description
Dept_no	Varchar2(8)	Unique identification of the department number
Dept_name	Varchar2(30)	Name of the department
Manager	Varchar2(20)	Manager of the department
Assistant	Varchar2(20)	Assistant of the department

Employee:

Field name	Datatype	Description
Emp_no	Varchar2(8)	Unique identification of the employee
Last_name	Varchar2(30)	Last name of employee
First_name	Varchar2(30)	First name of employee
Middle_Initial	Varchar2(2)	Middle or Initial of the employee
Date_of_birth	Date	Date of birth of the employee
Date_of_hire	Date	Date of hire of employee
Dept_no	Varchar2(8)	Foreign key from cits_dept

Warning:

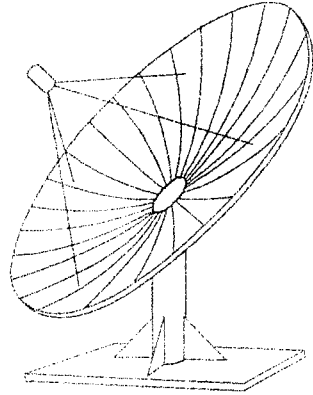
Field name	Datatype	Description
Emp_no	Varchar2(8)	Foreign key from cits_dept of the employee
Warning_type	Varchar2(30)	Type of the warning
Issued_by	Varchar2(30)	Warning issued by
Issued_date	Date	Date of issuing of warning
Summary	Varchar2(50)	Description
Action_taken	Varchar2(50)	Action taken against the warning
Emp_comms	Varchar2(50)	Employee's comments about warning

Evaluation:

Field name	Datatype	Description
Emp_no	Varchar2(8)	Foreign key from cits_emp
Evaluation_type	Varchar2(25)	Type of evaluation
Evaluated_by	Varchar2(25)	Name of the evaluator
Eval_date	Date	Evaluation date
Category1	Varchar2(10)	Evaluation category 1
Score1	Number(3)	Score of category 1
Category2	Varchar2(10)	Evaluation category 2
Score2	Number(3)	Score of category 2
Category3	Varchar2(10)	Evaluation category 3
Score3	Number(3)	Score of category 3
Eval_comms	Varchar2(50)	Evaluation comments
Emp_comms	Varchar2(50)	Employee comments about evaluation

Address :

Field name	Datatype	Description
Emp_no	Varchar2(8)	Foreignkey from cits_dept
Street	Varchar2(50)	Street of the employee
City	Varchar2(50)	City of the employee
Pincode	Varchar2(6)	Pincode of the employee



*SYSTEM TESTING
&
IMPLEMENTATION*

5.1 SYSTEM TESTING:

Testing is a process of executing a program with intent of finding errors. During testing, the program to be tested is executed with a set of test cases and the output of the program is evaluated to determine if the program is performing as expected.

Test cases:

Computer software considers two types of test cases as one to test the specific function of the product called as black box testing and the other to test the internal working of the product called as white box testing.

Black box testing examines some functional aspects of a system with little regard for the internal logical structure of the software. It enables the software engineer to derive sets of input conditions that will fully exercise all functional requirements for a program. It attempts to find errors in categories as incorrect or missing function, interface errors, errors in data structures or external data base functions, performance errors and initialization / termination errors. Black box testing is applied during the later stages of testing, since it disregards control structure and focus on information domain.

White box tests focus on the program control structure. Test cases are derived to ensure that all statements in the program have been executed at least once during testing and that all logical conditions have been exercised. White box testing uses the control structure of the procedural design to derive test cases. It can derive test cases that guarantee that all independent paths within a module have been exercised at once, exercise all logical decisions on their true and false sides, execute all loops at their boundaries and within their operational bounds and exercise internal data structure to assure their validity.

These test cases are applied to achieve more complete testing by uncovering and correcting the highest number of errors in the program.

Test methods:

Having test cases that are good at revealing the presence of false is central to successful testing. Ideally a set of test cases is to be determined such that successful execution of all implies that there are no errors in the program. Each test case needs more effort, machine time to evaluate the results. One possible ideal set of test cases is one that includes all the possible inputs to the program.

Unit Testing:

Unit testing focuses on verification effort on the smallest unit of software design of the module. Using the procedural design description as a guide, important control path are tested to uncover errors within the boundary of the module. The relative complexity of the tests and uncovered errors is limited by the constrained scope established for unit testing. The unit test is normally white box oriented. It is considered as an adjunct to the coding step.

Integration Testing:

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

Validation Testing:

It is a final series of software testing. Validation succeeds when software functions in a manner that can be reasonably expected by the customer. It is achieved through a series of black box test that demonstrate conformity with requirements. The test plan and test procedure are designed to ensure that all the functional requirements are satisfied, all performance requirements are achieved, documentation is correct and other requirements are met.

System Testing:

System testing is actually a series of different tests whose primary purpose is to fully exercise the computer-based system. Although each test has a different purpose, all work to verify that all system elements have been properly integrated and performed allocated functions.

5.2 SYSTEM IMPLEMENTATION :

System implementation is the process of making the newly designed system fully operational and consistent in performance. That is, implementation is the process of having the personal check out and put new equipment into use, train the users to use new system and construct any file that are needed to use it. At this stage the main workload, the greatest upheaval and the major impact on the existing practices shifts to the user department. If the implementation is not carefully planned and controlled, it can cause chaws. Thus it can be considered to be the most crucial stage in achieving a successful new system and in giving the users confidence that the new system will work well and be effective.

Before the development of the system, the user specifications, the forms and the validations based on the forms and the respective reports are prepared. The user can specify the changes if any, then the design departments examine the changes and if accepted then the requirement of the user is taken care of. This is the stage where system design begins, i.e., the theoretical design is converted into a working system. A mock data sheet is prepared which contains the results for each form. All the technical errors are fixed and the test data is entered. Then the reports are prepared and compared with that of the existing system. If the new system is not working properly, then once again we can go back to the existing system and after rectification, the new system can be installed.

Good documentation although essential, doesn't replace training. There is no substitute for hands on operation of the system. Vendors, in service training's on-site and in-house training are the various types of training.

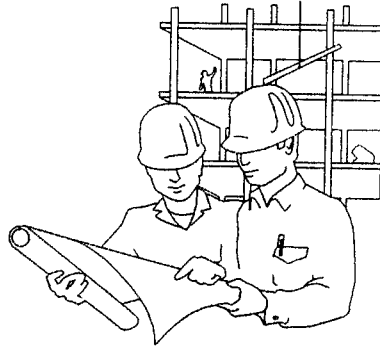


CONCLUSION

6. CONCLUSION

The system "Company Information Tracking System" has been developed as a part of a large HRMS Application and shall be responsible for maintaining information about employees, positions, company benefits, departments, new recruit checklists, employee achievements, warnings, evaluation reports, education & training, administration, work changes and several ad hoc reports.

It allows us to preview and print different reports that range from work history to department head counts. Each report screen has different options we can change the name of the report by editing the report title field. If we choose to have our company logo displayed on our report we can do so easily, it will appear in the top left corner.

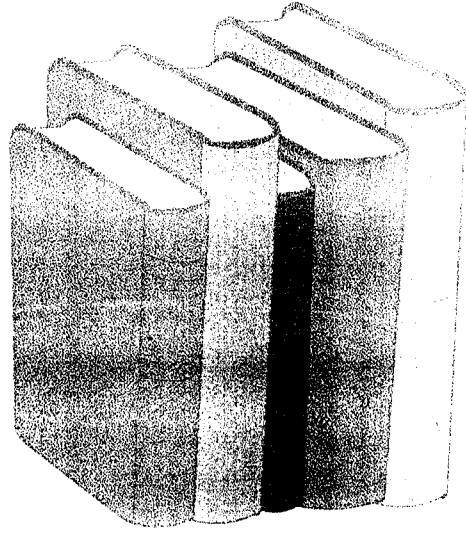


SCOPE FOR FUTURE ENHANCEMENT

7. SCOPE FOR FUTURE DEVELOPMENT

The Company Information Tracking System helps in easy maintenance of the details of the employees and organization. Reports can be generated quickly. The system also helps to store more number of records. The system can be further designed to include the management of human resources.

Proper documentation has been made. Proper modular design has been made and the coding with enough comment statements makes the program self-explanatory. This helps in adding or removing new modules to the system.



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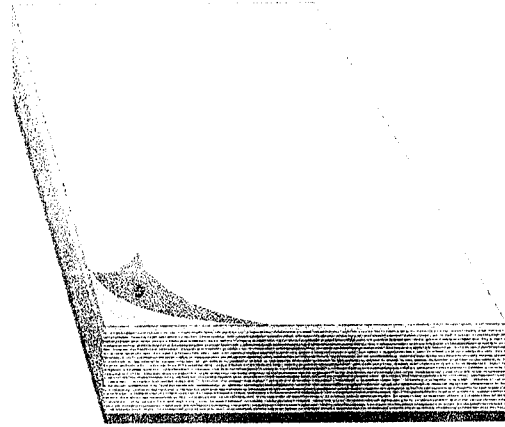
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4. Kevin Loney, George Koch, "Oracle 8I; Complete Reference", Osborne McGraw -Hill Publisher, 2000.

WEB SITES:

1. <http://www.microsoft.com/net>, the definitive resource for what .NET is and why it matters. It includes information for developers, IT pros, and businesses on the advantages of .NET and how to benefit from them.
2. <http://msdn.microsoft.com/net>, a rich source of information for developers worldwide who want to use .NET technologies and tools.
3. <http://msdn.microsoft.com/vstudio/nextgen>, Visual Studio .NET home page information for the rapid application development environment Visual Studio .NET
4. <http://www.gotdotnet.com>, GotDotNet, more than 900 tutorials and code samples that demonstrate the .NET Framework



APPENDICES

Black, Emily- Department: Sales – Position: Senior Sales Rep

Achievement Date	Achievement Type	Authorized by	Notes
01/18/2001	Outstanding Sales Award	Joanne Sylvester	

Donaldson, Jim- Department: Sales – Position: Agent

Achievement Date	Achievement Type	Authorized by	Notes
01/18/2002	Agent of the Year	Emily Black	

Garcia, Isabella- Department: MIS – Position: Network Administrator

Achievement Date	Achievement Type	Authorized by	Notes
01/20/2002	Outstanding Employee	Cindy Brown	

Task	Date	Initials
Overview of new employee packet.....	<input type="checkbox"/>	
Review Salary.....	<input type="checkbox"/>	
Review office policy	<input type="checkbox"/>	
Overview of job description	<input type="checkbox"/>	
Complete "Emergency info" form	<input type="checkbox"/>	
Overview of benefits package	<input type="checkbox"/>	
Complete W-4	<input type="checkbox"/>	
Complete I-9 form	<input type="checkbox"/>	



Department-Employee Position Certification Type Certification Number Expiry Date

Admin

Brown, Cindy Manger Sun Certification su23455566 11/06/2008

Sales

Donaldson, Jim Associate MCSE MS8990 12/05/2004

Wright, Sarah Associate MCSE MS7889 11/05/2003



Senior Sales Rep

Employee	Department	Job status	Compensation	Supervisor
Black, Emily	Sales	Full Time	35,000.00 per year	Cindy Brown
		Total	35,000.00	

Adams, Henry T

Date of birth: 02/28/1967
SSN: 123-45-6789
Sex: Male
Home Phone: 555-1234
Work Phone: 555-7833
Mobile Phone:
E-Mail: Henry@srmssoft.com
Marital Status: Single
Former Name:
Marriage Date:
Spouse Name:
Spouse SSN:
Spouse DOB:

Brown, Cindy

Date of birth: 03/18/1959
SSN: 333-35-1289
Sex: Female
Home Phone: 555-0456
Work Phone: 555-1233
Mobile Phone: 555-1055
E-Mail: Cindy@srmssoft.com
Marital Status: Married
Former Name: Cindy Simpson
Marriage Date: 11/02/1982
Spouse Name: Mark Brown
Spouse SSN: 554-11-2233
Spouse DOB: 01/08/1956
