TRAINING MANAGEMENT SYSTEM

At

HCL INFO SYSTEMS – CHENNAI.

PROJECT REPORT

P– 9 66

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

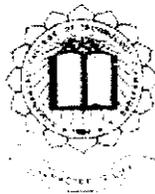M.Sc (APPLIED SCIENCE - COMPUTER TECHNOLOGY)

OF BHARATHIAR UNIVERSITY

Submitted by

M.Saravanan
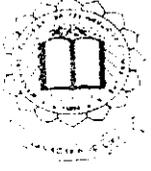**Reg. No – 0137Q0051**

Guided by

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Coimbatore – 641 006

APRIL 2003

KUMARAGURU COLLEGE OF TECHNOLOGY

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CERTIFICATE

This is to certify that the project work entitled

"TRAINIG MANAGEMENT SYSTEM"

Done by

M.Saravanan
Reg. No – 0137Q0051

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

Professor and HOD

Internal Guide

Submitted to University Examination held on _____

Internal Examiner (10/5/03)

External Examiner

HCL INFOSYSTEMS LTD.

TO WHOMSOVER IT MAY CONCERN

This is to certify that **Saravanan.M**, pursuing final year M.Sc (Applied Science – Computer Technology) in Kumaraguru College of Technology has duly completed his project entitled "**Training Management System**" under my guidance during the period December 2002 – April 2003.

The student has shown keen interest in the project work. The sincerity and involvement shown by him during the period was excellent. The skills carried out by the student were noticeable.
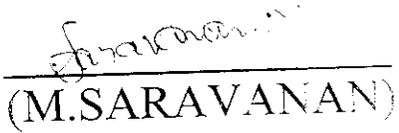
Date: 12-04-2003
Place: Chennai

(Project Coordinator)

DECLERATION

DECLERATION

M.SARAVANAN here by declare that this project work entitled **"TRAINING MANAGEMENT SYSTEM"** submitted to **HCL INFOSYSTEMS,** Chennai is a record of original work done by me under the supervision and guidance of **Mr. S.GANESH BABU M.C.A,** Lecturer Department of Computer Science and Engineering. This project work has not formed the basis for the award of any other Degree/Diploma/Associate ship/Fellowship or any similar title to any candidate of any university

Name of candidate   Register No.   Signature of candidate

M.SARAVANAN   **0137Q0051**   _____
                                                (M.SARAVANAN)

Countersigned by: **Staff-in-charge,**

                              Mr. S.GANESH BABU M.C.A,
                              Lecturer,
                              Department of Computer Science and Engineering.

ACKNOWLEDGEMENT

I wish to express my sincere gratitude to **Dr.K.K.Padmanabhan,B.Sc. (Engg)., M.Tech., Ph.D.,** the principal, Kumaraguru college of technology for providing me the necessary facilities in this college.

I wish to express my heartful thanks and deep sense of gratitude to **Prof. S.Thangasamy, B.E. (Hons), Ph.D.,** the head of the department of computer science and engineering who motivated us by giving valuable ideas and suggestions.

I am deeply indebted to the head of **HCL INFOSYSTEM (Chennai)** and **Mr. Venkatesh** for guiding me and for granting me permission to undertake this work in the concern.

I express my sincere thanks to my guide **Mr. S.Ganesh Babu M.C.A,** for his fruitful guidance.

Now I would like to place on record my warm gratitude to all teachers of Computer Science Department, Kumaraguru College of Technology for their valuable advice and co-operation.

I wish to thank my parents and all my friends for their advice and encouragement towards the completion of project work.

SYNOPSIS

The project entitled **"Training Management System"** has been developed for **HCL INFOSYSTEM – Chennai.** This project was developed using ASP as front end and MS Access as back end.

Training Management System deals with the process of identifying Training needs, Analysis and Training Plan creation. The new trainee's databases are maintained and the trainee program shall be conducted to ensure that individuals possess the requisite skills to perform their current role effectively and efficiently and to prepare the workforce for future core competencies.

The front end used is ASP,(Active Server Pages) are Microsoft's solution to creating dynamic Web pages. As the Internet has matured into a variable marketplace, Web site design has changed in step. In the early days of the World Wide Web, HTML was used to create static Web pages. Today, though, static web pages are quickly becoming obsolete. Access is used as back end, it helps in creating the database for easy retrieval, faster access of data.

CONTENT

INTRODUCTION

1. Introduction:

1.1 Purpose

The project keeps track of the employee training details. It also describes the procedures to be followed for identifying the training needs of the organization (PSO), projects, individuals and then developing or procuring training to address these identified needs. This is a useful guide for the administrator who maintains the trainees' database. The trainee process is the trainee who are selected for programs are given with all the details of course, faculty.

The trainees are trained on the basis of their skill or on the basis of what the organization requires. The details are stored in database in a centralized system. So that faculty are get assigned for that program. To identify, document the objectives of the training program, training needs of the organization, the training to be delivered and tactical procedures for carrying out the training activities. To evolve a procedure for developing and maintaining the training courses and also to prepare the training calendar for the month after taking in to consideration any adhoc training requirements and the training schedule as per the training calendar.

The trainees are nominated for the training programme. To conduct a training program it get organized and the performance of trainee get evaluated and feedback of the participants and faculty are also get evaluated and an overall report get prepared. Then at last the records get maintained for the trainee activities

1.2 Scope

Training Management System program shall be conducted to ensure that individuals possess the requisite skills to perform their current roles effectively and efficiently and to prepare the workforce for future core competencies. To achieve this, *HCL-INSYS PSO* will establish a *Staff Development Group* (SDG), which will

➢ Identify and review the needed Skill for each of the software management and technical roles

➢ Prepare an annual training plan

➢ Maintain training records for each staff member

➢ Evaluate the effectiveness of the training programs and take action to ensure that the training program meets the corporate objectives on a continuous basis.

This manual is divided into seven sections, each section describing the procedures to be followed for a certain set of activities.

➢ Identifying Training needs and analysis

➢ Training plan creation

The proposed system is aimed to simplify the complex and redundant process with flexibility of a simple process with proper guidelines wherever necessary. The proposed system attempts to solve all drawbacks of the system. Thus this system saves time and provides a good communication between the programmers.

1.3 Organization Profile

HCL Info systems Ltd is one of the pioneers in the Indian IT market, with its origins in 1976. For over quarter of a century, they have developed and implemented solutions for multiple market segments, across a range of technologies in India and worldwide. HCL have been in the forefront in introducing new technologies, leading provider of end-to-end IT solutions and services? The core practices are

➢ Application Development

➢ Integration

➢ Migration

➢ Ongoing Support through our outsourced Helpdesk/Call Center practice

They deliver their solutions through a combination of offshore, onsite, and offsite centers in order to deliver maximum value to our customers in India and over the world.

HCL Infosystems recorded global revenues of $270 million in the FY 2000-01 and employs about 3000 people worldwide. They are a public listed company in the Indian bourses since 1985. Their strategic alliance with Hewlett-Packard since 1992 has ushered in process and technical expertise in delivering enterprise.

WINNING EDGE

*25 years in the IT industry

* Strategic partnerships

* Core expertise and extensive experience in delivering IT services gained over a large corporate client base

*Mature and audited processes

* Ability to deliver solutions to our clients within budget constraints, while providing improved ROIs over time, and guaranteeing Total Cost Ownership (TCO) reductions

MANUFACTURING

With over two decades of experience in software development, HCL has provided solutions to customers in various industries which include mining, metal manufacture, semiconductor manufacture, pharmaceuticals, textiles, sugar, paper, fertilizers, automotive and consumer electronics.

Our solutions have included diverse applications such as production planning / scheduling, materials management, warehouse management, accounting, marketing, human resources etc., enabling our customers to improve their internal efficiencies and relationships with customers / suppliers.

SERVICES

HCL Insys can function as your IT partner, covering various stages of your IT lifecycle - planning, implementing, managing, or operating solutions. We have defined methodologies for our services and our services cover a wide range of technology platforms.

Services portfolio covers a wide range:

- Consulting services for developing your Information or network architecture / network management strategy
- Bespoke application development
- Implementation of off-the
- Shelf business solutions
- Provide helpdesk services for technical products
- Design and implement call centre solutions
- Infrastructure services such as platform migration, rollout services etc
- Network implementation services
- Internet related services such as application hosting, content provisioning, ASP hosting etc.
- Facilities management

Manufacture showcase

- Integrated solution
- Warehouse application
- Maintenance/ enhancements
- Production Planning & Control
- Inventory control systems

1.4 Definitions, Acronyms, Abbreviations

This document includes many definitions and acronyms to be a part of it. It uses many terms and abbreviations to define the concepts implemented for the product.

Definitions:

Management:

Management is the process of controlling the activities performed in an organization.

Acronyms and Abbreviations:

MPS — Manager, Professional Services

SDM — Staff Development Manager

SDG — Staff Development Group

SDC — Staff Development Coordinator

PM — Project Manager

PL — Project Leader

POP — Professional Orientation Programmer

PDP — Professional Development Programmer

PSU — Professional Services Unit

PSSU   - Professional Services Sub Unit

PSO   - Professional Services Organization

PSUH   - Professional Services Unit – Head

PSSUH   - Professional Services Sub Unit – Head

1.5 Overview

The Manual comprises of scope, usage and entire functionalities about the project. It allows the reader or the user in getting a better idea about the project and the software developed. This Manual *"Training Management* System" gives a clear vision about the project to the guide which is done to HCL – INSYS.

This Manual describes the collection and consolidation. training needs, training program, maintenances of various skills needed by the organization. Owing to the number of drawbacks evident in the existing system the development of new system is proposed with ASP as front end and ACCESS as back end.

2. General Description

2.1 Product Perspective

The product *Training Management System* which is to be developed has unique features like security and can be accessed from any part of the organization. The PSUH and PSSUH have direct access to the software then others who work in that organization. The overall details are maintained in computer itself instead of paper or hand written or typed. Since they were maintaining these records manually this product can make it easy. This product is fast and provides high security over product.

Since the product gets worked inside the organization separate faculties are not needed. It requires only a local machine which can run on Microsoft Windows platform and new version of Internet Explore and MS-Access for database is done. No internet connection is required and it gets worked in local network in side the organization.

The systems also not need in high configuration it can support any kind of processor mainly it depends on speed of the system and no other external or internal features are required.

2.2 Product Function

This product can be accessed from any part of the organization were the details are stored in a server. So according to the user the details are shown to them. New trainees can also view their details by according to the access given to them. Program conducted by an external organization at its premises either exclusively for HCL INFOSYSTEMS PSO staff or for all professionals (public programmes) for which HCL INFOSYSTEMS PSO can be nominated.

A program organized by Staff Development Coordinator/Manager Staff Development with faculty from within HCL INFOSYSTEM PSO or with external faculty, exclusively for HCL INFOSYSTEMS PSO. A detailed statement of course and special programmes planned to be conducted during a specified period (annually) along with the target number of staff to be covered.

The trainee program get planed or programmed according to the needs of the organization and the training is given to the trainees. A plan is evaluated such as the faculty, timings, duration and the numbers of participants who have to attend the program are done by the SDC. The details are getting stored in the database separately for faculty, trainee and course details. Here the updates or addition are done only by the SDC.

The faculty after the program has to give feedback about the program and the trainees same way the trainee also has to give their feedback about the faculty and the program they have attended. These details also get stored in separate database were more than one database get maintained for a faculty which makes the data getting stored and access fast. Same ways for trainee, course, login, attendance are some of the tables maintained separately.

2.3 User Characteristics

The trainee or PSUH can login by giving their username and password. But the administrator has full rights to change the database maintained in the organization. According to the trainee or employee level and the details shown to them gets varied.

The trainee or the user should know about the project or product in detail so only it can be easily carried out by them. The SDC, trainee, faculty knowledge about the product on which they are going to work should be known well. So only when a new trainee is to be add what all the required information needed are gathered bye SDC and get entered into the database. Same way a new course to be planned, faculty gets allotted for the training program, feedback details, training plan, monthly report are some of them.

Trainee himself wants to see his database he can view and no changes can be done. Same way for faculty he cannot do any changes all can be done only by SDC himself. Here the permissions are get assigned according to the username and password so that when username and password is given is checks what user type as SDC or trainee or faculty like wise and according to it details are listed.

2.4 General constraints

The organizational policies the training program supports. The training and organizational policies often imply constraints as well as success measurements for the training program. The training plan must make these constraints and measurements as explicit as possible

- ➢ Trainee's database

- ➢ Faculty database

- ➢ Course database

- ➢ Feedback database

- ➢ Attendance database

The organization policies which has to be strictly followed so that inside there won't be any confusion occurring in nominating the trainees or faculty or maintaining the overall program.

3. Specific Requirements

3.1 Functional Requirements

3.1.1 Introduction

The functional requirements deal with specific details which are involved with the product's performance and its usage. It requires information regarding the data that are given for the product to run and check its performance. These requirement details should be known to the end user for working with the product developed. These requirements are necessary for the product for generating output and perform efficiently.

3.1.2 List of Inputs

This software *Training Management System* needs trainees and their details are to be stored. The inputs needed are:

➤ The software projects training needs are identified

➤ Adequate resources and funding are provided

➤ Members of training group have necessary skills

➤ Project Managers receive orientation on the training program

➤ Objective for developing/ redesigning a training course

➤ Request for training

- Recruitment Plan

- Monthly Training Schedules

- List of nominees for the training program

- Training Plan

- Course completion report

- Feedback of participants

- Feedback of faculty

3.1.3 List of Outputs

- Training needs for financial year

- Training Plan

- The developed course

- Monthly Training Schedule

- List of nominees for training plan

- Course attendance sheet

- Participants feedback

- Faculty feedback

- Monthly report for the month

3.1.4 Information Processing Required

The product activities and its performance can be measured by giving many kinds of inputs and checking its processing rate. The architectural design to map training solution components to educational objectives, delivery medium and means of learning assessment.

Update financials based upon actual development and material cost. POP is conducted to all the new joiners to the organization irrespective of their qualification, experience, and role. The training plan is reviewed by an external quality reviewed and the feedbacks / suggestions are incorporated. Then it is authorized by the PSUH. This information is passed to the server which takes the responsibility of processing the request and enabling the response timer to throw the output to the requester.

Use case diagram
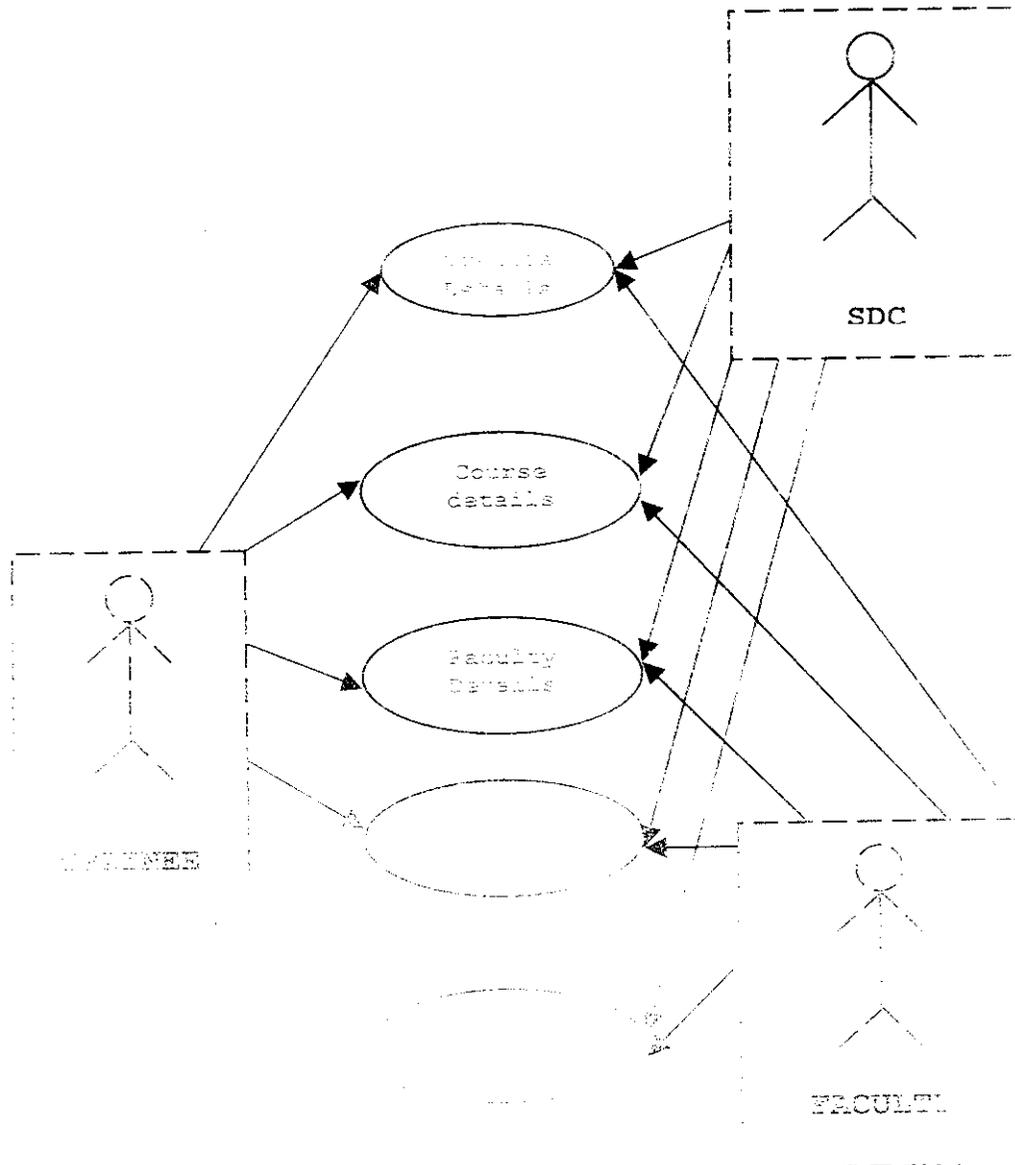
3.2 Performance Requirements

3.2.1 Security

The end users who are accessing the software are prompted for their *password* when they enter in. This prevents the misusage of the software. The raw data in the network which are passed during the data exchange among the users are not revealed to the other users in the network.

3.2.2 Availability

This product comprises of salient features like capturing the data and storing it in a database, filtering out the unnecessary data. The needed information is taken from database according to the security level given to the employee. Update, change, delete are some of the options available in this product. Finally overall management is done.

3.2.3 Capacity

This software has the capacity to work on any kind of platform and operating system. The product can work on dynamic platforms and provide the same kind of output as before. This product has strong interfaced components and can resist any range of bandwidth and fluctuating input constraints. It can interface with any kind of tools present in the operating system and as a result of this it can support many new features. It has the capacity to hold any number of persons and their database can be maintained and also the employee's details can be accessed from any part of the organization.

3.2.4 Response time

The software works with good response time capability by giving immediate results regarding the request. The trainee details are getting stored in the database then and there with no loss of time. In the same way data's get retried and shown to the employee.

3.3 Design Constraints

3.3.1 Standard Compliance

The product *Training Management System* strictly sticks to the standard compliances to the organization itself. This product is platform independent and can run on any kind of Microsoft Windows operating system.

3.3.2 H/W limitations

- Processor : Intel Pentium processor (400Mhz)

- Cache memory : 512 KB

- RAM : 32 MB

- Hard disk capacity : 4 GB

- Operating System : Windows 9x

3.3.3 External Interface Requirements

The terminals must be interfaced with other terminals for the software to work in the network. The basic requirements for external interface are:

Network Interface Card (NIC)

3.3.4 User Interface and Screen Formats

The software uses menu driven user interface. User can choose his criteria from the menu and process his requests. Since the software contains menus, it is very user friendly to work with it. The menu consists of all the functionalities which the product deals with. User gives the inputs through the dialog box prompted when the menu is selected.
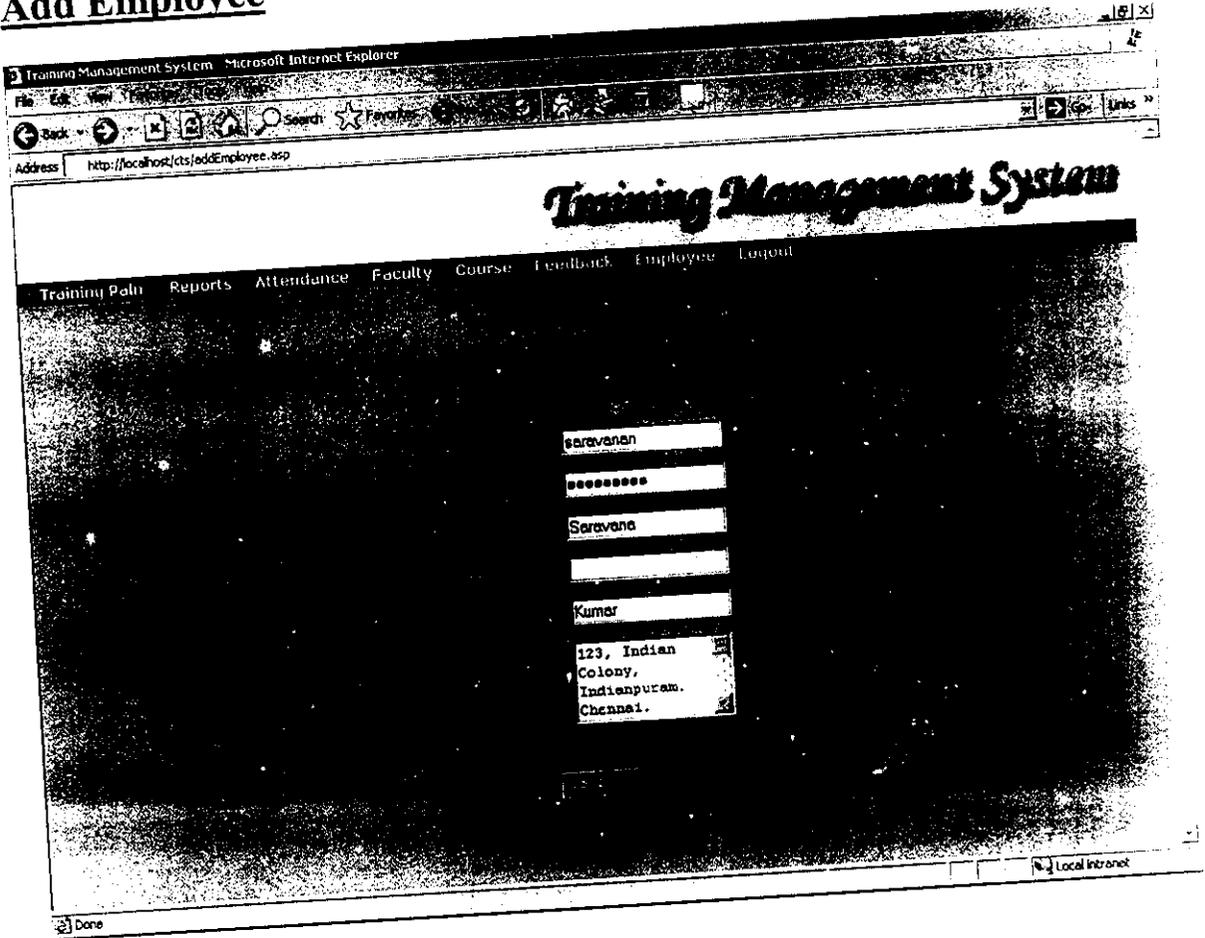
Screen formats give the output form of the software. The format chosen for displaying the output should be simple and informative, so that the user can understand the operation performed by the product.

Screen Formats

Login Page
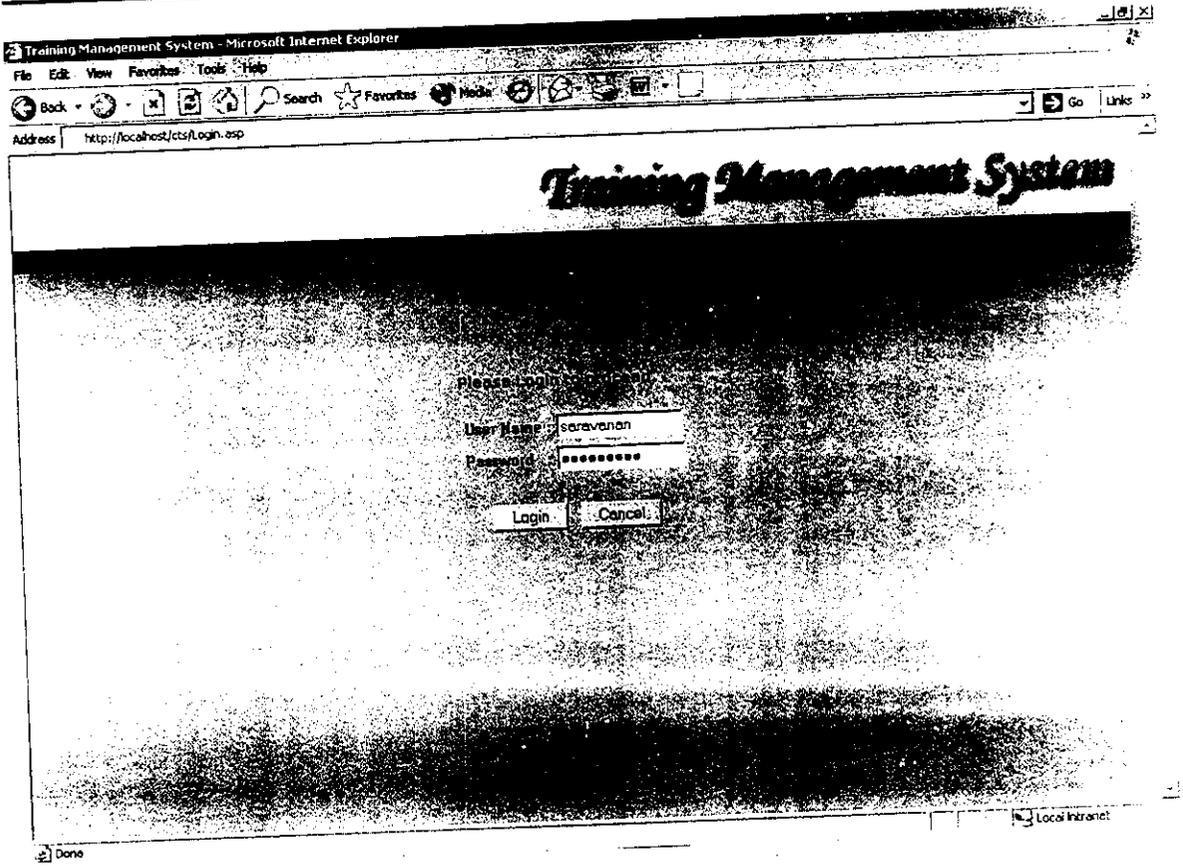
Add Employee

Update Employee

File   Edit   View   Favorites   Tools   Help

Back   ·   Search   Favorites

Address   http://localhost/cts/updateEmployee.asp

Training Management System

Training Pain   Reports   Attendance   Faculty   Course   Feedback   Employee   Logout

User Name: Saravana

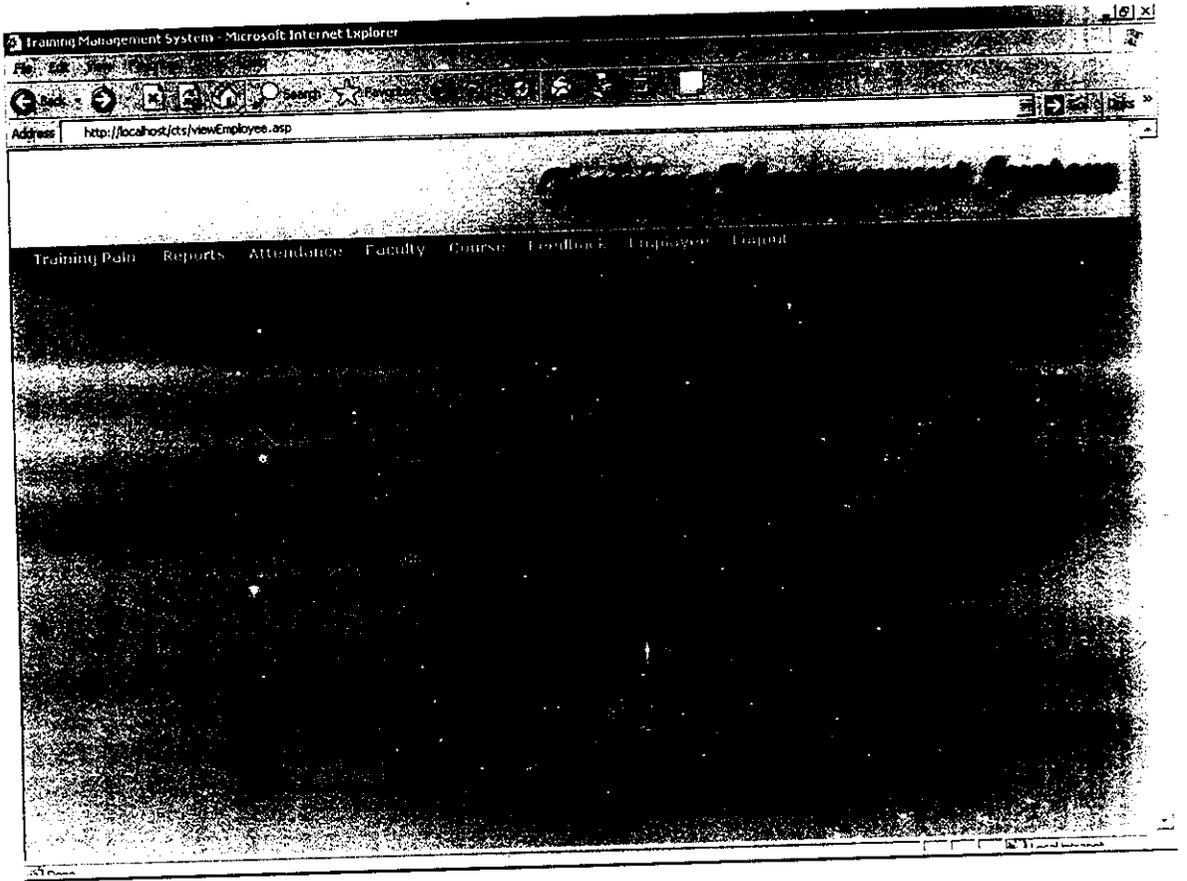Password: ••••••••

First Name: Saravana

Middle Name: M

Last Name: Kumar

Address: 112, CIT
Colony,
Saidapet,
Chennai.

Update

Local intranet

Done

View Employee Details

Address http://localhost/cts/viewEmployee.asp

Training Plan   Reports   Attendance   Faculty   Course   Feedback   Employee   Logout

Add Faculty

File   Edit   View   Favorites   Tools   Help

Back   •   •   Search   Favorites   Media

Address   http://localhost/cts/addFaculty.asp

Training Management System

Training Plan   Reports   Attendance   Faculty   Course   Feedback   Employee   Logout

Brags

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Bragadeesh

Sreenivsan

SAP HR/SD/FI-
CO, RFC, BAPI

11, Indra
Nagar,
Vellachery,
Chennai.

Done   Local Intranet

View Faculty

Update Faulty

File   Edit   View   Favorites   Tools   Help

Back -   -   Search   Favorites   Media

Address   http://localhost/cts/updatefaculty.asp

Training Management System

Training Pain   Reports   Attendance   Faculty   Course   Feedback   Employee   Logout

•••••

Bragadeesh

Sreenivasan

SAP SD/XX/FI-
CO, RFC,BAPI

11, Ashok
Nagar, Chennai

Local intranet

Done

Add Course

Update Course

Browser window — Training Management System - Microsoft Internet Explorer

Address: http://localhost/cts/updateCourse.asp

Navigation menu: Training Plan   Reports   Attendance   Faculty   Course   Feedback   Employee   Logout

Form fields:
02 03 2003
10 05 2003
30

Prerequisite:
Oops Concepts and
knowledge in any
programming language

Training Plan

File   Edit   View   Favorites   Tools   Help

Back   ·   ·   Search   Favorites

Address   http://localhost/cts/trainingPlan.aspi

Training Management System

Training Plan   Reports   Attendance   Faculty   Course   Feedback   Employee   Logout

Head Office   03   04   2003

SNo.	Course Title	Start Date			End Date			Venue
	Microsoft .NET	10	04	2003	26	07	2003	D-Block
	J2EE	20	04	2003	06	05	2003	A-Block
	ABAP/4	12	04	2003	10	09	2003	C-Block
	Select Course							
	Select Course							
	Select Course							
	Select Course							
	Select Course							
	Select Course							
	Select Course							

Attendance

Report

File   Edit   View   Favorites   Tools   Help

Back   Search   Favorites   Media

Address   http://localhost/cts/evalReports.asp

Training Management System

Training Plan   Reports   Attendance   Faculty   Course   Feedback   Employee   Logout

Evaluation

SNo.	Course Title	Start Date	End Date	Duration	Venue	No. of Participants	Timings	Coverage
1	J2EE	02/03/2003	21/05/2003	3 Months				
2	Microsoft .NET	02/03/2003	11/04/2003	1 Month			20	Introduction
3	ABAP/4	02/03/2003	21/05/2003	3 Months				

Done   Local intranet

Database Design

Tbl_login

This table has the user name and password that is to be stored for authentication check purpose.

SNo.	Field Name	Data Type	Size
1	Username	Text	20
2	Password	password	8

Tbl_employee

This table contains the details of trainee.

SNo.	Field Name	Data Type	Size
1	Username	Text	20
2	Firstname	Text	20
3	Middlename	Text	20
4	Lastname	Text	20
5	Address	Text	50

Tbl_faculty

This table contains the details of faculty.

SNo.	Field Name	Data Type	Size
1	Username	Text	20
2	Firstname	Text	20
3	Middlename	Text	20
4	Lastname	Text	20
5	Expertise	Text	30
6	Address	Text	50

Tbl_course

This table contains the details of course.

SNo.	Field Name	Data Type	Size
1	Courseid	Number	4
2	Coursetitle	Text	20
3	Coursedescription	Text	30
4	Coursestartdate	Date/time	8
5	Courseenddate	Date/time	8
6	Days	Number	3
7	Status	Text	20
8	Prerequisites	Text	20
9	Duration	Text	10
10	Noofparticipants	Number	3

Tbl_attendancemaster

This table has contains the attendance master.

SNo.	Field Name	Data Type	Size
1	CourseTtle	Text	20
2	Venue	Text	20
3	StartDate	Date/Time	8
4	EndDate	Date/Time	8
5	Attendance	Number	3

Tbl_attendancedetail

This table contains the date and participants attendance.

SNo.	Field Name	Data Type	Size
1	Attendance	Number	3
2	Date	Date	8
3	p/a	Yes/no	

Tbl_trainingplan

This contains the location and date for training plan and other details are got from course, faculty database.

SNo.	Field Name	Data Type	Size
1	Location	Text	20
2	Date	Date	8

Tbl_coursrfeedback

This table contains the course feedback given by participants about the course and content itself.

SNo.	Field Name	Data Type	Size
1	Content	Text	10
2	Material	Text	10
3	Examples	Text	10
4	Duration	Text	10
5	Courserating	Text	10
6	Presentation	Text	10
7	Deliveryandclarity	Text	10
8	Lectures	Text	10
9	Interaction	Text	10
10	Coverage	Text	10
11	facultyrating	Text	10

Tbl_facultyfeedback

This table contains the faculty feedback on course.

SNo.	Field Name	Data Type	Size
1	Cousecontent	Text	10
2	Coursematerial	Text	10
3	Duration	Text	10
4	Preparation	Text	10
5	Groupsize	Text	10
6	Courseorganisation	Text	10
7	Comments	Text	10

Other requirements

4 Other requirements

4.1 Operation required by User

The operations define the objectives of the project and reviews the overall activates so that errors are corrected early in the development process. Steps are taken in each phases to ensure that there are no errors in the final product.

The user should be capable of understanding the product on which he is working. He should be able to know the behavior of the product and were the data get stored in database and according to the employee level in the organization the details are shown to him.

> Incorrect or missing functions.

> Evolutions to be performed.

> Standards those are applicable to the project.

User should be well aware of the product before he starts using it. It requires proper experience and proper quality training to be given to the users. The users are trained to use the product themselves to enter into the system. Training is given to access the necessary information in a convenient way.

4.2 Site Adaptation Requirements

This software works on all platforms but it requires some modifications to be done in its implementation. The system has been coded as per the specification and design. If adaptation is not carefully planned and controlled, it can cause chaos.

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2. www.managementinfo.com

3. www.training.com