

Internship Project Report

At C-DAC ACTS Pune

Project On

Corporate Training Management System

Session: 2023

Under the Guidance of:

Ms. Harshada Deshpande

C-DAC ACTS Pune

Submitted By:

Name: Krishna Chaurasia

**Course: B. Tech in Computer Science
& Business System 5th Semester**

Roll No.: 2101331560023



Affiliated to Dr. A.P.J Abdul Kalam Technical University, Uttar Pradesh, Lucknow

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Project Overview:

The Corporate Training Management project is a comprehensive and innovative solution designed to streamline and optimize the management of corporate training initiatives within an organization. The project utilizes modern technologies such as JSP (Java Server Pages), Servlets, and MySQL to create an efficient, user-friendly, and scalable platform.

Objective:

The primary objective of this project is to provide a centralized system that empowers organizations to efficiently plan, implement, and monitor their corporate training programs. The platform aims to bridge the gap between training needs and skill development, fostering a skilled and motivated workforce.

Scope of the project

The scope of this project includes designing and developing a robust web-based platform that accommodates various user roles, such as managers, course coordinators, trainers, and participants. The system will facilitate the creation and management of training proposals, work orders, and course enrollments, while also providing tools for progress tracking and assessment.

The project aims to ensure data security and privacy, implement role-based access control, and create an intuitive user interface for easy navigation and interaction. The platform will be scalable to accommodate future growth.

1. Web Development: Creating a web-based platform using technologies such as JSP (Java Server Pages), Servlets, HTML, CSS, and JavaScript to provide a user-friendly interface accessible from various devices.

2. Database Design and Management: Designing an efficient database schema using MySQL or another relational database management system (RDBMS) to store and manage information related to training proposals, work orders, courses, participants, trainers, centres, address and other relevant data.

3. User Authentication and Authorization: Implementing secure user authentication and role-based access control to ensure that only authorized users have access to specific functionalities and data.

4. Form Validation and Error Handling: Implementing form validation techniques to ensure data integrity and providing appropriate error handling to guide users in case of input errors.

5. Integration with External Systems: Integrating the training platform with existing admin or employee management systems to synchronize user data, streamline user onboarding, and improve data consistency.

6. Resource Allocation and Scheduling Algorithms: Developing algorithms to optimize resource allocation (e.g., trainers, locations, organisations etc) and scheduling of training sessions to avoid conflicts and maximize efficiency.

7. Data Analytics and Reporting: Implementing data analytics tools to generate meaningful reports and insights on training performance, active participant numbers, course popularity, and resource utilization

Problem Definition and Analysis

The problem addressed by the Corporate Training Program Management project is the lack of an efficient and centralized system to manage, coordinate, and optimize corporate training initiatives within the organization. The absence of a structured platform results in various challenges, including:

1. Disorganized Training Processes: Without a centralized system, training proposals, work orders, and course enrollments are managed manually, leading to inefficiencies, delays, and potential data inconsistencies.

2. Difficulty in Identifying Training Needs: The absence of a systematic process for identifying training needs hinders the organization's ability to address skill gaps effectively and offer relevant training programs to employees.

3. Resource Allocation Inefficiencies: Manual resource allocation and scheduling may lead to clashes, overbooking, or underutilization of trainers, venues, and other training resources.

4. Lack of Progress Monitoring: Without a centralized tracking mechanism, it becomes challenging for managers and administrators to monitor the progress report, assess training effectiveness, and provide timely feedback.

5. Limited Reporting and Analytics: The absence of data analytics tools limits the organization's ability to gather insights from training data, hindering informed decision-making and continuous improvement.

6. Inconsistent User Experience: Inconsistent user experiences due to disparate systems and manual processes may lead to user frustration and a reluctance to engage actively in the training program.

7. Security and Data Privacy Concerns: Using decentralized systems may pose security risks and raise data privacy concerns, especially when handling sensitive employee information.

The lack of an integrated corporate training program management system impacts the organization's overall efficiency and productivity, hindering employee skill development and growth. By addressing these challenges, the proposed project aims to streamline training processes, improve training effectiveness, and make a culture of continuous learning within the organization.

Introduction To Corporate Training Management Project

In the fast-paced and competitive corporate landscape, the success of any organization heavily relies on the skills and expertise of its employees. Continuous learning and professional development are essential for employees to stay updated with the latest industry trends and to enhance their capabilities. Corporate training programs play a vital role in fostering a skilled and motivated workforce.

This project introduces a comprehensive and efficient Corporate Training Program Management system that leverages modern technologies such as JSP (Java Server Pages), Servlets, and MySQL to streamline the training process. The system aims to provide a centralized platform for managing, organizing, and monitoring various corporate training initiatives within an organization.

Key Features

The Corporate Training Program Management project offers a suite of key features designed to streamline training processes. It includes efficient proposal management and role-based access control. Diverse courses empower participants to enrol in training sessions. Resource allocation and scheduling

optimize training logistics. Data analytics and data security is prioritized. This comprehensive system fosters a culture of continuous learning, benefiting both employees and the organization.

1. User-Friendly Interface: The system offers an intuitive and user-friendly interface that allows admin, managers, coordinators, trainers, and faculty to easily interact with the platform. Coordinators can easily access training schedules, enroll in courses, and track their progress.

2. Roll Based Access Control

I) Admin:

II) Manager:

III) Course Coordinators:

IV) Faculty/Trainers:

Role Based Functionality

1) Role of Admin:

The admin's role also involves maintaining a centralized database of registered employees, tracking their progress, and ensuring that the right individuals are assigned to the appropriate roles. One crucial responsibility of the admin is to assign roles to the registered members of the organization's employees.

2) Role of Managers: As a manager responsible for controlling the introduction of proposals and work orders, he/she plays an important role in the effective planning, execution, and oversight of projects within the organization.

The following are the key roles of manager:

1) Identify training needs in your team: Assessing the skills and knowledge gaps within the team to determine the specific training requirements.

2) Introduce relevant training proposals: Creating comprehensive proposals that outline the training objectives and content.

3) Obtain approval and allocate resources: Presenting proposals to higher management for approval and securing the necessary resources, such as budget.

4) Issue work orders for the introduced proposals: After approval, issuing work orders to initiate the training programs and provide clear instructions required for work order.

5) Selecting best options for the proposals: Choosing appropriate training centres and courses that align with the team's needs and objectives.

Proposal Maintenance:

- The Training Manager is responsible for creating and submitting proposal summaries for corporate training programs.
- They provide essential details such as the training objectives, target audience, and estimated costs.
- The proposal summaries undergo review and approval by the admin before proceeding further.

Work Order Generation:

- Once the proposal summaries are approved, the Training Manager can generate work orders based on the approved proposals.
- Work orders include crucial information, such as training timelines, venues, and assigned trainers.
- The work orders serve as a blueprint for conducting the training session.

3) Role of Course Coordinator:

- The Course Coordinator manages the scheduling of training sessions based on approved work orders and faculty availability.
- They ensure that training programs are efficiently organized, avoiding conflicts in schedules.
- Course Coordinators can assign faculty members to various courses at different locations, considering their expertise and availability.

Customizable Training Plans: The system allows coordinators to create tailored training plans based on the specific needs and skill levels of individual faculty or departments. Personalized login dashboard provided for security.

4) Role of Trainers/Faculty:

The primary role of a trainer in corporate training program management is to oversee and facilitate the assigned training events effectively. Faculty members can access course details and resources through their login. The trainer's responsibilities include:

1) Access to Training Courses: The trainer can view the list of training courses available within the corporate training program. This access allows them to be aware of the topics and content covered in each course.

2) Work Order and Courses Details: The trainer can see the specific work orders and courses that have been assigned to them for training events. This information includes details such as the training objectives, course content, and schedule.

3) Event Coordination: The trainer is responsible for coordinating and conducting the training events according to the assigned work orders and proposals. This involves ensuring that the training materials are prepared, scheduling sessions, and managing logistics.

4) Delivering Training Content: The primary duty of the trainer is to deliver the training content effectively, using appropriate instructional methods and tools to engage participants and facilitate effective learning.

3. Data Analytics and Reporting: The platform incorporates robust data analytics and reporting capabilities to generate insightful reports on training performance, proposals, work orders, course popularity, and employee participation. These analytics assist in making data-driven decisions to enhance the overall training strategy.

4. Guardians of Data Integrity: Navigate the crucial terrain of data security as we underline the system's commitment to safeguarding sensitive information, fostering trust and compliance in the digital age.

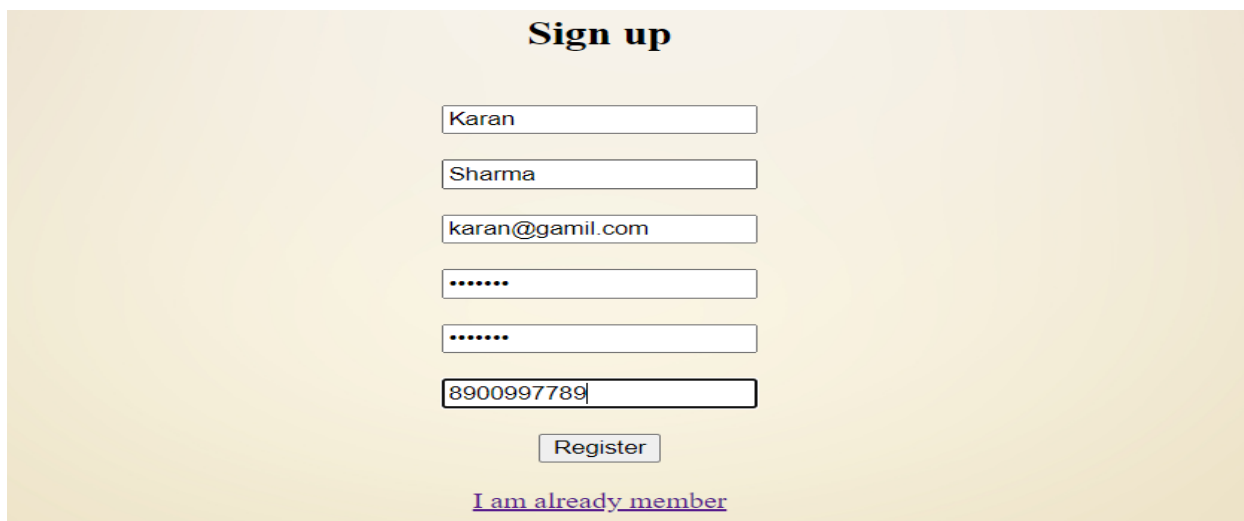
5. Empowering Growth: This web application empowers both employees and organizations, driving growth and success through this training program management.

Project Structure

The Corporate Training Management project is structured to address the challenges faced by organizations in efficiently managing their training programs. This project provides different role-based control and after login employee will be redirected to his/her personalised dashboard only. So, in this way this project maintains security.

These are the screenshots of different personalised dashboard for different employees.

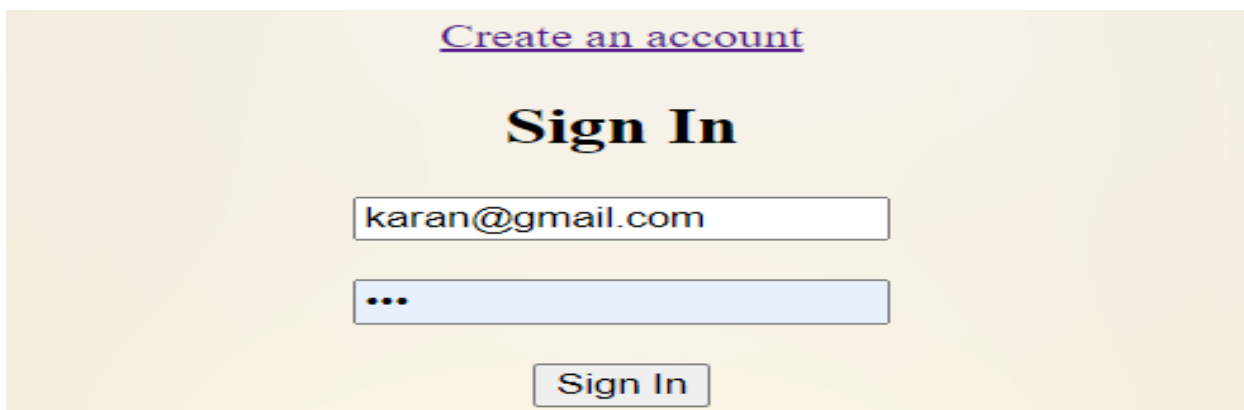
1.Registration Page: If password didn't match or mobile no. greater or less than 10 digits, then it shows error.



The screenshot shows a 'Sign up' registration form on a light beige background. The form contains the following fields and elements:

- Sign up**: Title of the form.
- : First name field.
- : Last name field.
- : Email address field.
- : Password field.
- : Confirm password field.
- : Mobile number field.
- : Register button.
- [I am already member](#): Link for existing users.

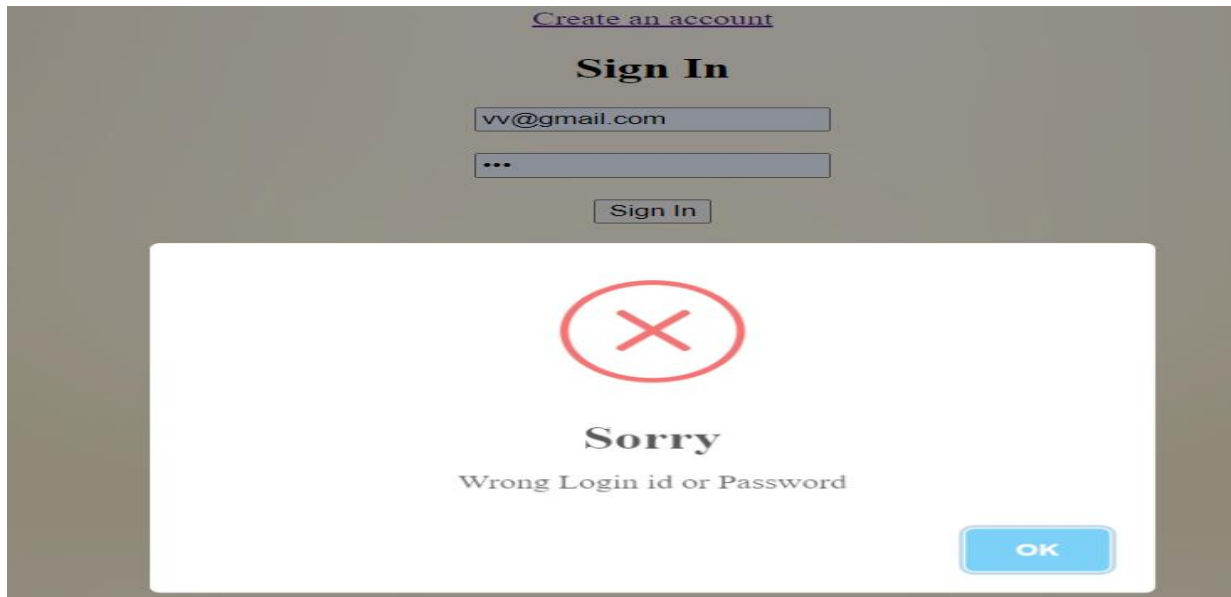
2.Login Page:



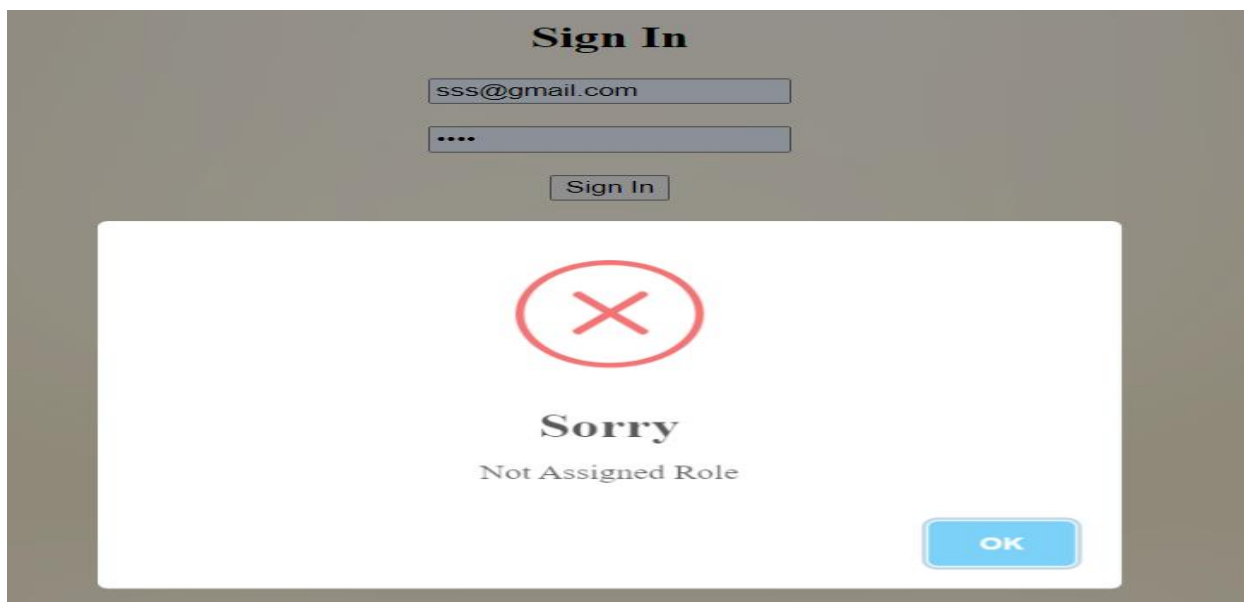
The screenshot shows a 'Sign In' login form on a light beige background. The form contains the following elements:

- [Create an account](#): Link for new users.
- Sign In**: Title of the form.
- : Email address field.
- : Password field.
- : Sign In button.

2.1. If any employee makes wrong login, it shows error message.



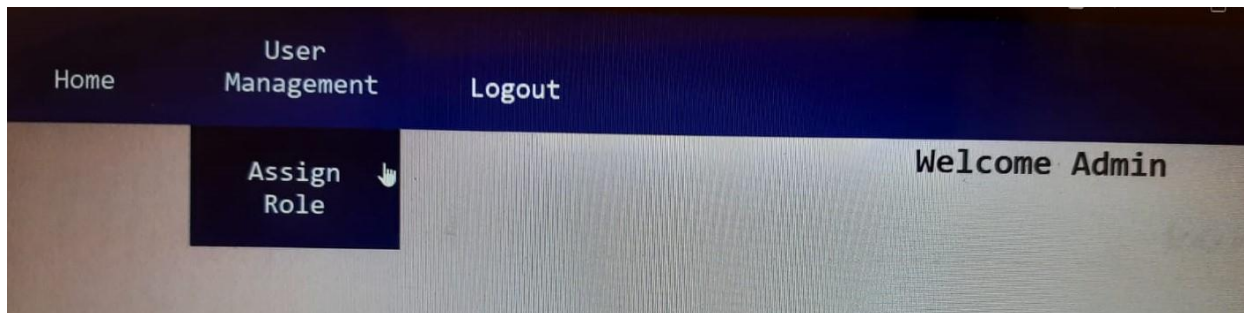
2.2. If Any employee is not yet assigned any role, then it will show a message of Not Assigned Role.



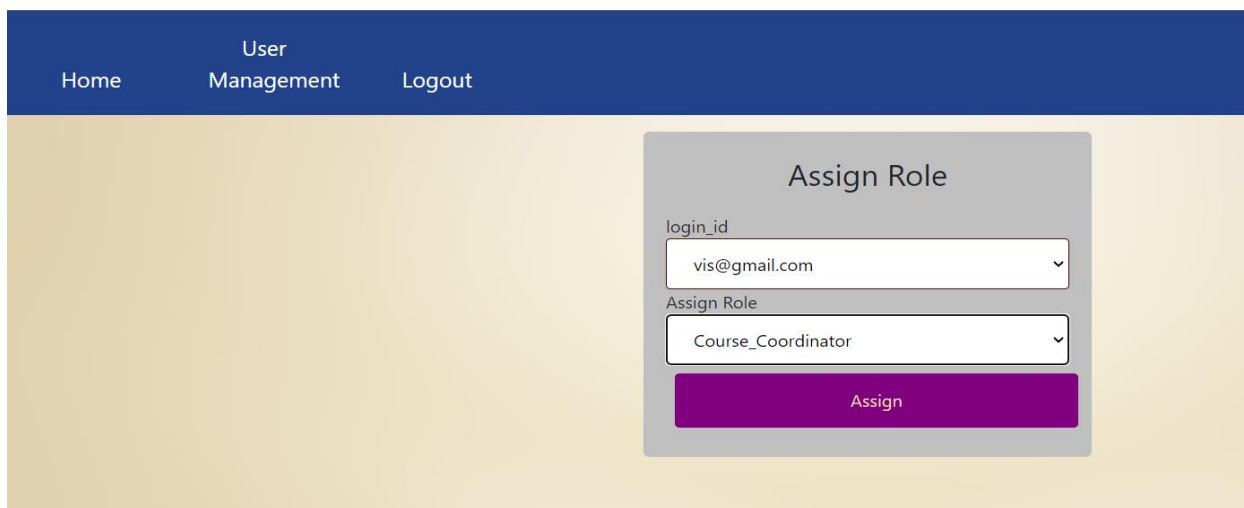
3. Admin's Dashboard



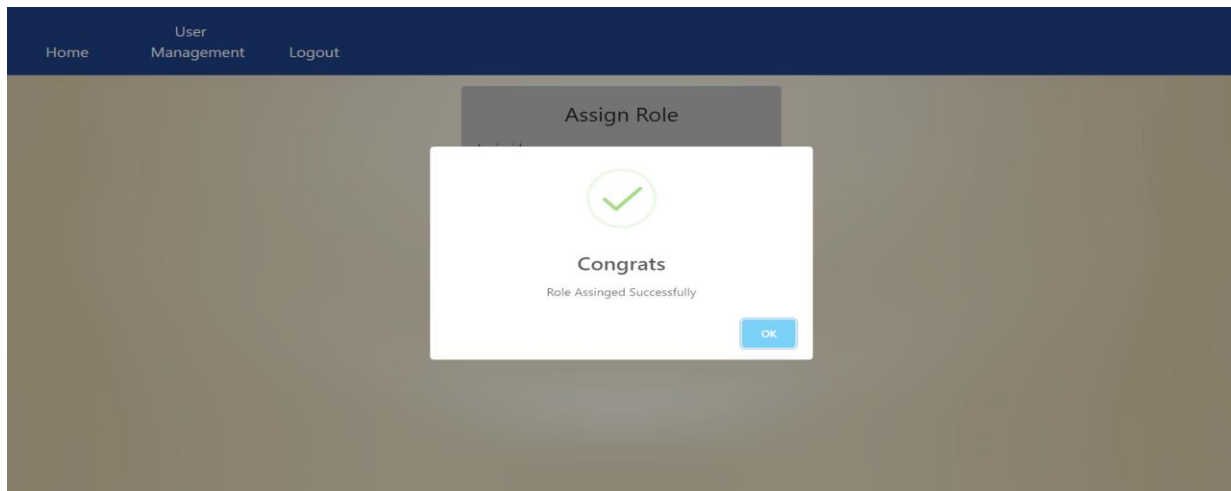
3.1. Here in User Management menu, admin has an option of Assign Role and when using this feature, he/she allowed to assign role (admin, manager, course coordinator and faculty).



3.2. Admin can select any employee's login id who are registered but not yet assigned any role.

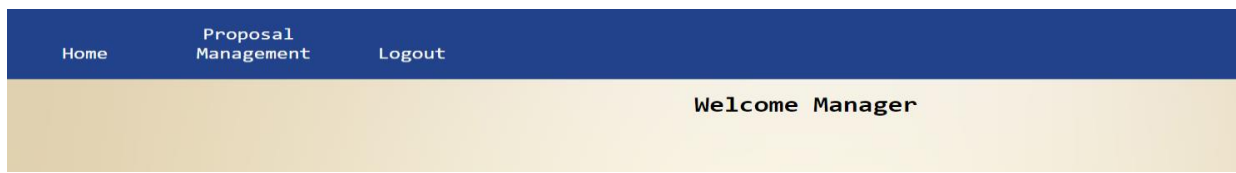


3.3. After assigning role to the registered employee, a message is displayed where it shows Role Assigned Successfully

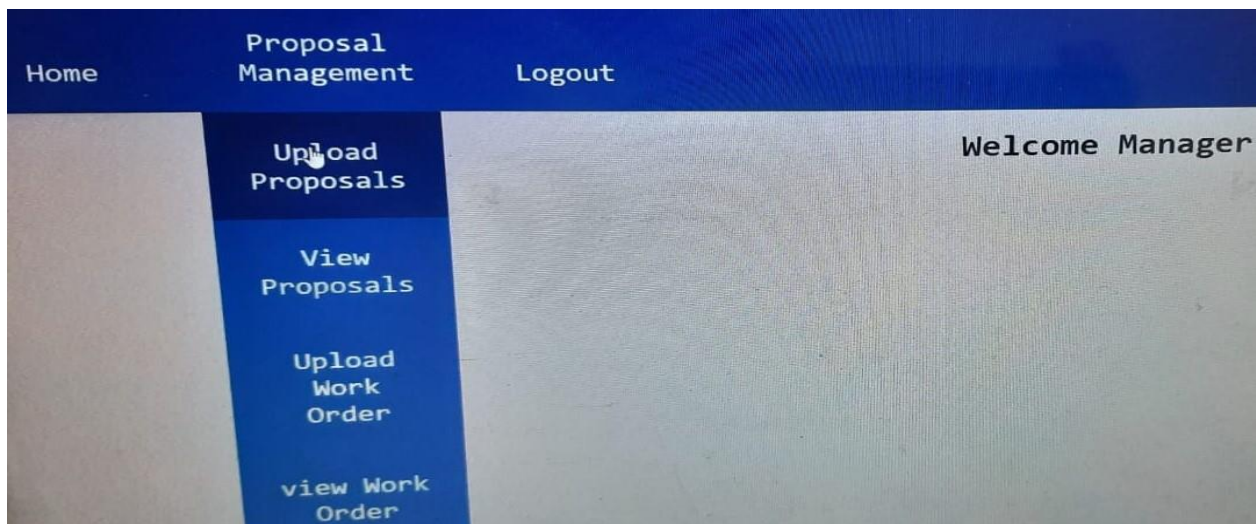


3.4. Here admin task is over and now he/she can logout.

4. Manager's Dashboard:



4.1. Here manager can upload proposal summary for the organization by selecting option upload proposals.



4.2. When manager chooses option upload proposals then a proposal summary form appears where he/she enters the necessary details for proposal summary.

The screenshot shows a web application interface with a dark blue header containing navigation links: "Home", "Proposal Management", and "Logout". The main content area has a light beige background. On the right side, there is a grey-bordered box titled "Proposal Summary". Inside this box, the following fields are visible:

- Proposal Name:** A text input field containing "Innovate & Elevate".
- Proposal Type:** A dropdown menu with "Tender" selected.
- Proposal For:** A text input field containing "Research Grant".
- Submission Date:** A date input field containing "02-08-2023" with a calendar icon.
- Course Courses:** A dropdown menu with "Java Programming" selected.
- Costing:** A text input field containing "3500.00" with a currency symbol.
- Status:** A dropdown menu with "In Process" selected.
- Expected Delivery Date:** A date input field containing "17-08-2023" with a calendar icon.
- Final Status:** A dropdown menu with "WO Pending" selected.
- Executed By Centre Id:** A dropdown menu with "C-DAC ACTS" selected.
- Upload Proposal File(pdf, jpg):** A section with a "Choose Files" button and the filename "project-proposal.pdf" displayed.
- Submit:** A large purple button at the bottom of the form.

4.3. When manager successfully submits proposal form, he/she automatically redirect to another web page where all the uploaded proposals can be seen.

Manager can also see all record of uploaded proposal by choosing view proposal option from dropdown menu of proposal management.

Manager can also filter the record on the basis of submission date, delivery date, courses, status, final status and cost. He can also search anything in search box. and can apply sorting of column either ascending or descending.

He/she can also view or download the uploaded proposals files.

Home Proposal Management Logout													
Proposal Summary													
View By: All Data View Data Reset Data													
Show 10 entries Search: <input type="text"/>													
Proposal Id	Proposal Name	Proposal Type	Proposal For	Submission Date	Courses	Courses Duration	Costing	Status	Delivery Date	Final Status	Executed By	Proposal file	Uploaded File
1	Innovation	Tender	Quantum computing	2023-07-26	DevOps	9 days	6000.0	In Process	2023-07-27	WO Pending	C-DAC Noida	Corporate_Training_Mgmt_db structure.pdf	View File
2	Transformative Talents	Proposal	Skill development	2023-07-27	Management	60 hr	10000.0	Submitted	2023-08-05	WO Pending	Sunbean	data structures.pdf	View File
4	Transformative Talents	Tender	system	2023-07-31	DevOps	9 days	6000.0	In Process	2023-08-05	WO Pending	C-DAC ACTS	Corporate_Training_Mgmt_db structure (1).pdf	View File
5	Cultural Development	Proposal	Compoany	2023-08-02	Management	60 hr	5000.0	In Process	2023-08-04	WO Pending	C-DAC ATC	purchase-order.pdf	View File
6	Innovation	Tender	l&t	2023-08-03	Flutter	90 hr	45000.0	In Process	2023-08-06	WO Pending	C-Tech	Corporate_Training_Mgmt_db structure (1).pdf	View File
7	Innovate & Elevate	Tender	Research Grant	2023-08-02	Java Programming	45 hr	3500.0	In Process	2023-08-17	WO Pending	C-DAC ACTS	project-proposal.pdf	View File
Showing 1 to 6 of 6 entries Previous 1 Next													

4.4. Another task of manager is to upload work order against uploaded proposal files by choosing option upload work order from dropdown menu of proposal management. A work order form appears where manager can provide work order details.

Home Proposal Management Logout		
<div> <div>Work Order</div> <div> <div>Proposal</div> <div>Innovate & Elevate</div> </div> <div> <div>WO Submit Date</div> <div>04-08-2023</div> </div> <div> <div>Payment Status</div> <div>Paid</div> </div> <div> <div>WO File(pdf, jpg)</div> <div> <div>Choose Files</div> <div>crReport.pdf</div> </div> </div> <div>Submit</div> </div>		

4.5. When manager successfully submit work order form, he/she is automatically redirect to another web page where all the uploaded work order can be seen.

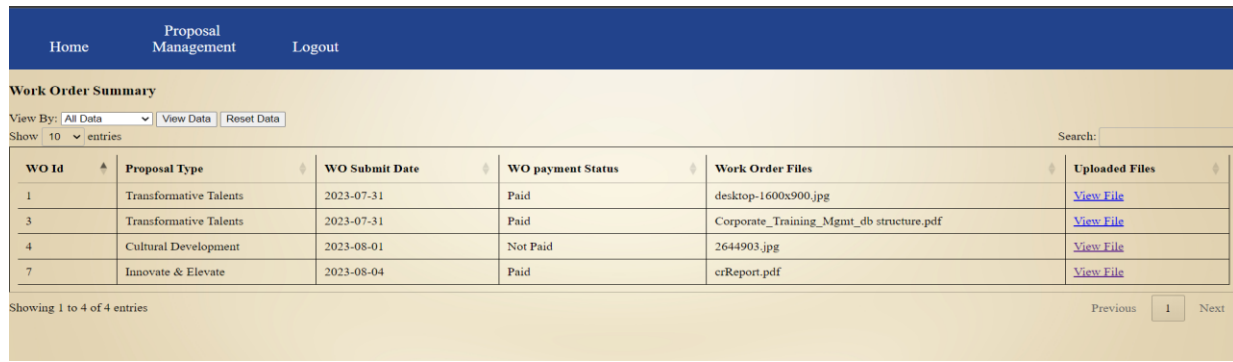
Manager can also see all record of uploaded work order by choosing view work order option from dropdown menu of proposal management.

Manager can also filter the record on the basis of date and proposal name. He can also search anything in search box. and can apply sorting of column either

ascending or descending.

He/she can also see or download the uploaded work order files.

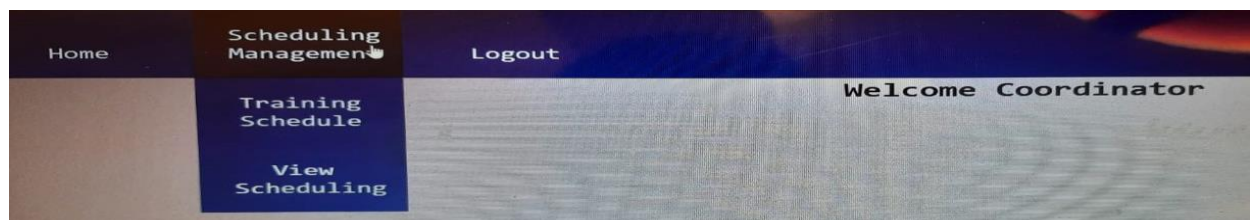
4.6. After completing tasks manager can logout.



WO Id	Proposal Type	WO Submit Date	WO payment Status	Work Order Files	Uploaded Files
1	Transformative Talents	2023-07-31	Paid	desktop-1600x900.jpg	View File
3	Transformative Talents	2023-07-31	Paid	Corporate_Training_Mgmt_db structure.pdf	View File
4	Cultural Development	2023-08-01	Not Paid	2644903.jpg	View File
7	Innovate & Elevate	2023-08-04	Paid	crReport.pdf	View File

5. Course Coordinator's Dashboard:

5.1. Course Coordinators are responsible for management of training schedule and dashboard looks like.



5.2. Course Coordinators can choose training schedule option from scheduling management menu and after selecting this option a form appears in which he/she enters data accordingly.

Home Scheduling Management Logout

Scheduling

WO_id:
7

Proposal Name:
Innovate & Elevate

Course Name:
Java Programming

Duration
75 hr

No. of Participants
120

Start Date
07-08-2023

End Date
25-08-2023

Location
Pune

Faculty
prashant

Submit

5.3. In this form WO_id value is fetched from MySQL table and automatically on the basis of WO_id's value selected by course coordinator two other fields Proposal Name's and Course Name's value also fetched from MySQL table and these two fields having property read only.

5.3.1. In this form available faculties are shown in dropdown options coordinator can choose any faculty.

5.4. After successful submit of scheduling form course coordinator is directly redirect to a scheduled record page where all the scheduling data are shown.

5.5. Coordinator can also filter the record on the basis of start date, end date, course and location. He can also search anything in search box and can apply sorting of column either ascending or descending.

Home

Scheduling Management

Logout

Scheduled Summary

View By: All DataView DataReset Data

Show 10 entries

Search:

Schedule ID	Proposal Name	Courses	Duration	No. of Participants	Start Date	End Date	Location	Faculty
1	Innovate & Elevate	Java Programming	75 hr	120	2023-08-07	2023-08-25	Pune	prashant
2	Transformative Talents	DevOps	60 hr	45	2023-08-06	2023-08-22	Mumbai	Ram
3	Transformative Talents	Management	90 hour	85	2023-08-31	2023-09-10	Lucknow	vinay
4	Cultural Development	Management	24 hr	93	2023-08-08	2023-08-22	Chennai	prashant

Showing 1 to 4 of 4 entries

Previous

1

Next

6. Faculty’s Dashboard:

6.1. Every Faculty can view their scheduled task, courses, location etc. details.

When faculty login, he can directly see his/her records only not other’s records.

Home

Scheduling Management

Logout

Scheduled Summary

View By: All DataView DataReset Data

Show 10 entries

Search:

Schedule ID	WO Id	Proposal Name	Course Name	Duration	No. of Participants	Start Date	End Date	Location	Faculty
1	7	Innovate & Elevate	Java Programming	75 hr	120	2023-08-07	2023-08-25	Pune	prashant
4	4	Cultural Development	Management	24 hr	93	2023-08-08	2023-08-22	Chennai	prashant

Showing 1 to 2 of 2 entries

Previous

1

Next

Home

Scheduling Management

Logout

Scheduled Summary

View By: All DataView DataReset Data

Show 10 entries

Search:

Schedule ID	WO Id	Proposal Name	Course Name	Duration	No. of Participants	Start Date	End Date	Location	Faculty
2	3	Transformative Talents	DevOps	60 hr	45	2023-08-06	2023-08-22	Mumbai	Ram

Showing 1 to 1 of 1 entries

Previous

1

Next

Home	Scheduling Management	Logout
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Scheduled Summary									
View By: All Data View Data Reset Data									
Show 10 entries									
Search:									
Schedule ID	WO Id	Proposal Name	Course Name	Duration	No. of Participants	Start Date	End Date	Location	Faculty
3	1	Transformative Talents	Management	90 hour	85	2023-08-31	2023-09-10	Lucknow	vinay

Showing 1 to 1 of 1 entries									
Previous 1 Next									

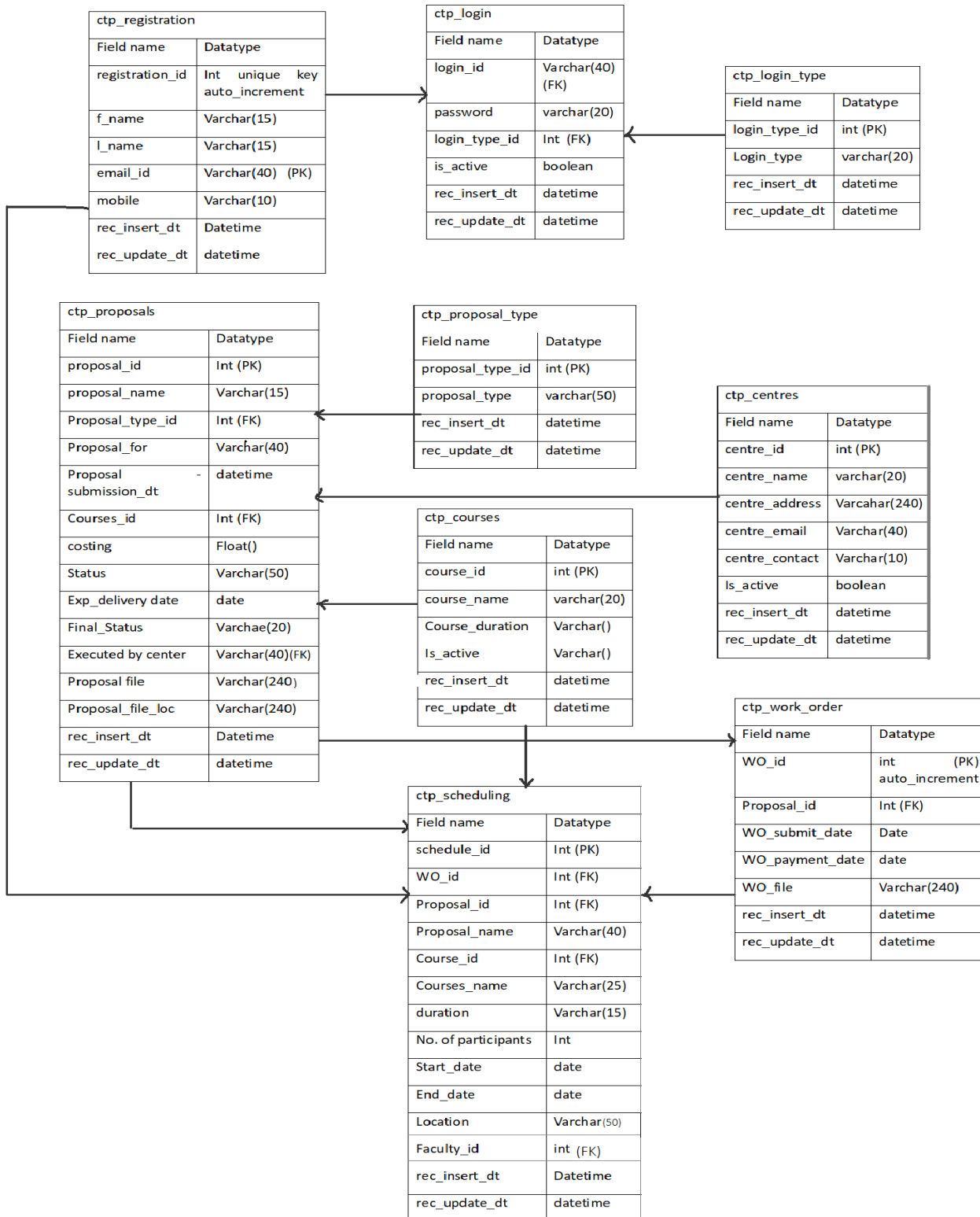
6.2. Faculties can filter their record on the basis of start date, end date, course and location. They can also search anything in search box and can sort their all-column's data either in ascending or descending order.

Database Structure

The database structure of the Corporate Training Management project is designed to efficiently store and manage various aspects of the training program. The database schema encompasses tables to store information related to training proposals, work orders, courses, participants, trainers, and other relevant data. Below is an overview of the database structure:

Table Structure

Database Name: Corporate_Training_Mgmt_db



Source Code:

<https://github.com/Krishna-Chaurasia/corporate-training-management>

Limitations And Future Scope

Limitations

While the Corporate Training Program Management project offers valuable benefits to organizations, it also has some limitations that need to be considered:

- 1) Dependency on Technology:** The success of the project relies on the stable functioning of the underlying technologies such as JSP, Servlets, and MySQL. Technical issues or compatibility challenges could impact the system's performance.
- 2) User Adoption:** Introducing a new training management platform may face resistance from some employees who are not familiar with the technology or reluctant to adapt to a new system.
- 3) Data Accuracy and Integrity:** The system's accuracy heavily relies on correct and up-to-date data input. Any inaccuracies in data entry could lead to erroneous reporting and analysis.
- 4) Internet Connectivity:** The web-based nature of the platform necessitates reliable internet connectivity. Poor internet access could disrupt access to the system and hinder training activities.
- 5) Scalability:** As the organization grows or undergoes significant changes, the platform's scalability must be considered to accommodate increased user demand and data volume.

Despite these limitations, careful planning, proper training, and continuous improvement efforts can help mitigate potential challenges and ensure the successful implementation and usage of the Corporate Training Program Management project.

Future Scope

The Corporate Training Program Management project has promising future scope to enhance its capabilities and cater to evolving organizational training needs. As this project is scalable so, some potential future scope areas can be included:

- 1) Different types of report can be generated which will help the organization to make better decision. Some other features like automatically AI report analysis can be integrated in this project which will save time and resources. Other functionalities downloadable reports of different category can be added in this project.
- 2) Additional functionality like revenue generated can be calculated which will help the organization to invest in other sectors.
- 3) Multiple course selection feature can be added while scheduling the work orders.
- 4) Financial year wise revenue collection functionality can be included in this project
- 5) In future, there can be facility for the participants also to see their growth, reports, attendance etc.
- 6) Integrating artificial intelligence and machine learning algorithms can enable personalized learning paths for participants. The platform can analyse individual learning patterns and preferences, recommending tailored training programs to maximize learning outcomes.
- 7) Enhancing data analytics capabilities can provide more comprehensive insights into training effectiveness, performance, and resource utilization. Predictive analytics can help forecast future training needs and trends