

WorkWize

Major Project - Proposal

CS 816: Software Production Engineering

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1 PROBLEM STATEMENT

In industrial settings, traditional methods of project management often lack efficiency and responsiveness, characterized by manual processes and disjointed workflows. Existing project management systems may not adequately address the needs of industrial projects, leading to challenges in project coordination, task assignment, and progress tracking. Additionally, there is a growing demand for platforms that can accommodate user feedback and updates in real-time.

The project "WorkWize" aims to address these challenges by developing a comprehensive project management platform tailored for industrial settings. The primary objective is to provide a streamlined and intuitive solution that enhances project workflows and facilitates effective project management by all stakeholders.

2 APPLICATION FEATURE

- **Roles:**

1. **Employee:**

Role Description: Employees execute assigned tasks within projects under the guidance of managers.

2. **Manager:**

Role Description: Managers oversee projects and task assignments, ensuring smooth workflow and project progress.

3. **Admin:**

Role Description: Administrators have the highest level of access and are responsible for managing users, including adding and removing employees and managers, as well as overseeing the overall system administration.

- **Role-wise Functionalities:**

1. **Employee:**

- **Tasks Related:**

Description: Employees can view tasks assigned to them.

Actions:

- **View Assigned Tasks:**

- Description: Employees can see tasks assigned to them under projects.

- **Update Task Progress:**

- Description: Employees can update the progress status of tasks assigned to them.

- **Visualize Personal Progress:**

- Description: Employees can visualize their progress as per the tasks assigned to them.

- **View Profile:**

Description: Employees can view their personal details and task history.

Actions:

- View personal details
- View task history

- **Reset Password:**

Description: Employees can reset their passwords if forgotten.

Actions:

- Request password reset
- Set new password

2. Manager:

- **Create Project:**

Description: Managers can create new projects and assign to employees.

Actions:

- Create new projects
- Assign to employees

- **Update Project:**

Description: Managers can update existing projects.

Actions:

- Edit existing projects
- Add or remove tasks, employee from projects

- **Delete Project:**

Description: Manager can delete projects created by them.

Actions:

- Delete Project from the System.

- **Additional Functionality:**

- Project Progress Monitoring:
 - Description: Managers track project progress.

- Time Distribution Management:
 - Description: Managers allocate and adjust time distribution.
- Effort Distribution Visualization:
 - Description: Managers visualize effort distribution.

- **Reset Password:**

Description: Employees can reset their passwords if forgotten.

Actions:

- Request password reset
- Set new password

3. Admin:

- **Manage Users:**

Description: Admins can add, view, edit, and remove users (both employees and managers) from the system.

Actions:

- Add new users
- View user profiles
- Edit user profiles
- Delete user accounts

- **System Administration:**

Description: Admins oversee the overall system administration, ensuring its smooth operation and handling any technical issues.

Actions:

- Handle system configurations
- Perform maintenance tasks
- Address technical issues and escalations

3 TOOL STACK

Front End:

- React JS

Back End:

➤ Frame Work:

- Spring Boot

➤ Database:

- MySQL

DevOps Tool:

- **GitHub:** Version control and collaboration
- **Jenkins:** Automation for building, testing, and deployment
- **Docker:** Containerization for application management
- **Ansible:** Automation for configuration and deployment
- **ELK Stack:** Log management and analysis