Dharish

Abstract

This document is created for Task Management System to list all the product features and functionalities to be available for the users

**Product requirement document**

Task Management System

**Project Title:** Task Management System

**1. Introduction**

The Task Management System (TMS) software solution focused at improving task organization, delegation, and tracking within teams or organizations. It provides a centralized platform for creating, assigning, prioritizing, and monitoring tasks, thereby enhancing productivity, collaboration, and transparency between the Project stakeholders

**2. Objectives**

* To streamline task management processes
* To improve team collaboration and communication
* To enhance task prioritization and allocation
* To Provide real-time task tracking and progress monitoring

**3. Features**

* **User Authentication and Authorization**: Secure login and role-based access control to ensure data confidentiality and integrity.
* **Project Profile Creation :** Users can create/update/view/delete the projects with below fields
  + - Projects
    - Duration
    - Company details
* **Task Profile Creation**: Users can create/update/delete/view tasks with the below fields
  + - Task
    - Status(Pick list should have values ‘’Not Started’ ’In Progress’’ and ‘’Done’’)
    - Assigned To (Individual)
* **Task Assignment**: Assign tasks to individual team members or groups, with the ability to set deadlines and priorities.
* **Task Prioritization**: Prioritize tasks based on urgency, importance, or other customizable criteria to ensure efficient resource allocation.
* **Task Tracking**: Real-time tracking of task status, progress, and completion, allowing stakeholders to stay updated on project timelines.

**4. User Roles**

* **Admin**: Manages users, roles, and system settings. Has access to all features and functionalities.
* **Manager**: Creates, assigns, and monitors tasks within their team(s).
* **Team Member**: Receives assigned tasks, updates task status, and collaborates with team members.

**5. Technology Stack**

* **Frontend**: HTML, CSS, JavaScript (React.js)
* **Backend**: Node.js
* **Database**: SQL Server

**6. User Interface Design**

* Clean and intuitive user interface (UI) design with easy navigation and accessibility.
* Responsive design to ensure compatibility across various devices and screen sizes.

**7. User Story & User Journey**

**7.1 User Story – Task Profile Management:**

**Successful Login:** **As a** user, **I want to** login to Task Management System (TMS) with valid credentials **so that** I access the TMS Home Screen Dashboard and navigate to different components to perform Task management activities

**Unsuccessful Login with invalid credentials: As a** user, when I enter invalid username and password and click on login button then I should see a error message saying invalid login credentials.

**Password recovery: As a** user, when I click ‘’Forgot Password’’ link in login page then system should redirect me to password reset page where I can provide my email id to reset the password

**Account Lock after 3 invalid attempts: As a** user, when I enter invalid username and password for more than 3 attempts then the system should lock the user account and display message as “Contact Admin to unlock your account’’

**Logout: As a** user, when I click logout from the TMS then the system should log me out from the System and redirect me to the Login page of TMS

**Create Task**

* As a user, when I click ‘’Create Task’’ from the TMS Dashboard then system should redirect the user to Create task page so that user can create the Task profile for assigning, tracking and monitoring the task
* As **a user, I want to create a new task profile so that I can track task details such as the task description, status, and assigned team member.**
* **As a user ,when I enter invalid Task description or status or assigned To team members and click ‘’Create’ ’then system should throw an error saying that “Please enter valid inputs’’**
* **As a user ,when I leave any of the mandatory fields blank and click ‘’Create’’ then the system should throw an error message as ‘’Fields cannot be left blank’’**
* **As a user, when I click on ‘’Reset’’ in Task creation page then system should clear all the values filled in the respective fields so that I can re-enter the values for all the fields.**
* **As a user, when I click on ‘’Cancel’’ Button in Task creation page then the system should close the page and redirect user to TMS Home Screen**

**Update Task**

* As a user, when I click ‘’Update Task’’ from the TMS Dashboard then system should redirect the user to Update task page so that user can update the Task profile
* As **a user, when I make changes in the Task description, Status and Assigned To individual and Click on ‘’Update’ ’then the system should update the changes made and display message to the user as ‘’Task has been updated successfully’’**
* As **a user, when I make changes in the Task description, Status and Assigned To individual with invalid data and Click on ‘’Update’ ‘then the system should display message to the user as ‘’Please provide valid inputs’’**

**Delete Task**

* As **a user, when I click ‘’Delete Task’ from the TMS Dashboard then the system should redirect the user to Delete Task page so that user can delete the tasks which are no longer needed in TMS**
* **As a user, when I select the Task to deleted and click on delete task then system should open a pop up window to get user confirmation for deleting the task and delete the task from the system.**

**View Task**

* As **a user, when I click ‘’View Task’ from the TMS Dashboard then the system should redirect the user to View Task page so that user can view the tasks profile with Task description, Status and Assigned To individuals**

**7.1.1 User Journey Task Profile Management**

**1. Login**

**Goal:** Access the Task Management System to manage tasks.

* **Step 1:** User navigates to the Task Management System homepage.
* **Step 2:** User clicks on the "Login" button.
* **Step 3:** User enters their username/email and password.
* **Step 4:** User clicks the "Login" button.
* **Step 5:** User is successfully authenticated and redirected to their dashboard.

**2. Task Creation**

**Goal:** Create a new task to keep track of a to-do item.

* **Step 1:** From the dashboard, user clicks on the "Create New Task" button.
* **Step 2:** User is redirected to the task creation page.
* **Step 3:** User enters task details including description, Status and Assigned To individuals.
* **Step 4:** User clicks the "Create" button.
* **Step 5:** The system confirms task creation and redirects user back to the dashboard with the new task listed.

**3. Task Viewing**

**Goal:** View details of existing tasks to monitor progress and upcoming deadlines.

* **Step 1:** On the dashboard, user sees a list of tasks.
* **Step 2:** User clicks on a specific task title to view detailed information.
* **Step 3:** User is redirected to a task detail page displaying all information

**4. Task Updating**

**Goal:** Update task details to reflect progress or changes.

* **Step 1:** From the task detail page, user clicks the "Update" button.
* **Step 2:** User is redirected to the task update form pre-populated with existing task details.
* **Step 3:** User makes necessary changes (e.g., updating the description, Status and Assigned To individual).
* **Step 4:** User clicks the ‘’Update" button.
* **Step 5:** The system confirms task update and redirects user back to the task detail page with updated information.

**5. Task Deletion**

**Goal:** Remove a task that is no longer needed or completed.

* **Step 1:** From the task detail page, user clicks the "Delete" button.
* **Step 2:** System prompts user with a confirmation dialog to confirm task deletion.
* **Step 3:** User confirms the deletion.
* **Step 4:** The system deletes the task and redirects user back to the dashboard with a success message.

**7.3 User Story - Project Profile Management:**

**Create Project**

* As a user, when I click ‘’Create Project’’ from the TMS Dashboard then system should redirect the user to Create Project page so that user can create the Project profile for assigning, tracking and monitoring the progress
* As **a user, I want to create a new project profile so that I can create the project with details such as Project name, Duration and Company.**
* **As a user, when I enter invalid inputs for Project name. Duration and Company and click ‘’Create’’ then system should throw an error saying that “Please enter valid inputs’’**
* **As a user ,when I leave any of the mandatory fields blank and click ‘’Create’’ then the system should throw an error message as ‘’Fields cannot be left blank’’**
* **As a user, when I click on ‘’Reset’’ in Project creation page then system should clear all the values filled in the respective fields so that I can re-enter the values for all the fields.**
* **As a user, when I click on ‘’Cancel’’ Button in Project creation page then the system should close the page and redirect user to TMS Home Screen Dashboard**

**Update Task**

* As a user, when I click ‘’Update Project’’ from the TMS Dashboard then system should redirect the user to Update project page so that user can update the Project profile
* As **a user, when I make changes in Project Name, Duration and Company and Click on ‘’Update’ ’then the system should update the changes made and display message to the user as ‘’Project has been updated successfully’’**
* As **a user, when I make changes in Project Name, Duration and Company individual with invalid data and Click on ‘’Update’ ‘then the system should display message to the user as ‘’Please provide valid inputs’’**

**Delete Task**

* As **a user, when I click ‘’Delete Project’ from the TMS Dashboard then the system should redirect the user to Delete Project page so that user can delete the Projects which are no longer needed in TMS**
* **As a user, when I select the Project to be deleted and click on ‘’Delete’’ then system should open a pop up window to get user confirmation for deleting the project and deletes the project from the TMS.**

**View Task**

* As **a user, when I click ‘’View Project’ from the TMS Dashboard then the system should redirect the user to View Project page so that user can view the tasks profile with Project Name, Duration and Company**

**7.3.1 User Journey – Project Profile Management**

**1. Project Creation**

**Goal:** Create a new project to organize related tasks and activities.

* **Step 1:** From the dashboard, user clicks on the "Create New Project" button.
* **Step 2:** User is redirected to the project creation form.
* **Step 3:** User enters project details including Project Name, duration and Company.
* **Step 4:** User clicks the "Create" button.
* **Step 5:** The system confirms project creation and redirects user back to the dashboard with the new project listed.

**2. Project Viewing**

**Goal:** View details of existing projects to monitor progress and manage tasks within them.

* **Step 1:** On the dashboard, user sees a list of projects.
* **Step 2:** User clicks on a specific project name to view detailed information.
* **Step 3:** User is redirected to a project detail page displaying all information including Project Name, Duration and Company

**3. Project Updating**

**Goal:** Update project details to reflect changes in scope, deadlines, or team composition.

* **Step 1:** From the project detail page, user clicks the "Update" button.
* **Step 2:** User is redirected to the project update form pre-populated with existing project details.
* **Step 3:** User makes necessary changes (e.g., updating the Name, Duration and Company).
* **Step 4:** User clicks the "Update" button.
* **Step 5:** The system confirms project update and redirects user back to the project detail page with updated information.

**4. Project Deletion**

**Goal:** Remove a project that is no longer needed or completed.

* **Step 1:** From the project detail page, user clicks the "Delete" button.
* **Step 2:** System prompts user with a confirmation dialog to confirm project deletion.
* **Step 3:** User confirms the deletion.
* **Step 4:** The system deletes the project and redirects user back to the dashboard with a success message

**8. Security Considerations**

* Data encryption in transit and at rest to protect sensitive information.
* Regular security audits and updates to mitigate potential vulnerabilities.

**9. Deployment**

* Cloud deployment (e.g., AWS, Azure) for scalability, reliability, and accessibility.
* Continuous integration and deployment (CI/CD) pipeline for automated testing and deployment.

**10. Conclusion**

The Task Management System aims to revolutionize task management by providing a comprehensive solution for teams to efficiently create, assign, track, and analyse tasks. By enhancing collaboration, productivity, and transparency, TMS empowers organizations to achieve their goals effectively and adapt to dynamic business environments.