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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.
* **Components**: TMS should have components Projects and Tasks for users to perform below actions
  + **Project Creation :** Users can create new projects, duration and Company details
  + **Task Creation**: Users can create new tasks, Status and Assigned To individuals
  + **CRUD operations** for Projects and Tasks
  + **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 Master**

**Task Management Home Screen:** As a user, I want to login to TMS the valid credentials so that I access the TMS Home Screen and navigate to different components

**Task CRUD Operation:** As a user, I want to access the Task component so that I can perform Task Creation/Updation/View/Delete operations

**Status CRUD Operation:** As a user, I want to access the ‘’Status’’ menu from Task component so that I can perform Status Creation/Updation/View/Delete operations

**Assigned to CRUD Operations:** As a user, I want to accesses ‘Assigned to’’ menu from Task component so that I can perform Assigned to Creation/Updation/View/Delete operations

**7.1.1 User Journey: Task Master**

**1. Task Management Home Screen**

* The user navigates to the TMS Login Page
* The user fills in the user name and password
* The user clicks on the ‘’Login’’ Button
* The user can access the TMS Home Screen and can navigate to different components

**2. Tasks CRUD Operations**

* The user navigate to Task Menu under Tasks component
* The user fills the Task name and other required fields
* The user click on “Create’’ Button and Tasks is created successfully
* The user navigates to the Update Tasks action
* The user fills the details to be modified
* The user click on ‘’Update’’ Button and Task updated successfully
* The user navigates to Delete Tasks action
* The user selects the Task to be deleted and Tasks is deleted successfully
* The user navigates to View Tasks action
* The user select the Task to be viewed and click on ‘’View’’
* The user can view the list of Tasks available in TMS

**3. Status CRUD Operations**

* The user navigate to Status Menu under Task component
* The user fills the Status name and other required fields
* The user click on “Create’’ Button and Status is created successfully
* The user navigates to the Update Status action
* The user fills the details to be modified
* The user click on ‘’Update’’ Button and Status updated successfully
* The user navigates to Delete Status action
* The user selects the Status to be deleted and Status is deleted successfully
* The user navigates to View Status action
* The user click on ‘’View’’
* The user can view the list of Task Status available in TMS

**4. Assigned To CRUD Operations**

* The user navigate to Assigned To Menu under Task component
* The user fills the Assigned To individual name and other required fields
* The user click on “Create’’ Button and Assigned to individual is created successfully
* The user navigates to the Update Assigned To action
* The user fills the details to be modified
* The user click on ‘’Update’’ Button and Assigned To individual is updated successfully
* The user navigates to Delete Assigned To action
* The user selects the “Assigned To’’ to be deleted and ‘’Assigned To’’ is deleted successfully
* The user navigates to View Assigned To action
* The user click on ‘’View’’
* The user can view the list of Assigned To individuals available in TMS

**7.2 User Story: Project Master**

* **Task Management Home Screen:** As a user, I want to login to TMS the valid credentials so that I access the TMS Home Screen and navigate to different components
* **Project CRUD Operation:** As a user, I want to access the ‘’Project’’ menu under Project component so that I can perform Project Creation/Updation/View/Delete operations
* **Duration CRUD Operation:** As a user, I want to access the ‘’Duration’’ menu from Project component so that I can perform Duration Creation/Updation/View/Delete operations
* **Company CRUD Operations:** As a user, I want to accesses ‘Company’’ menu from Project component so that I can perform Company Creation/Updation/View/Delete operations

**7.2.1 User Journey: Project Master**

**1. Task Management Home Screen**

* The user navigates to the TMS Login Page
* The user fills in the user name and password
* The user clicks on the ‘’Login’’ Button
* The user can access the TMS Home Screen and can navigate to different components

**2. Project CRUD Operations**

* The user navigate to Project Menu under Tasks component
* The user fills the Project name and other required fields
* The user click on “Create’’ Button and Project is created successfully
* The user navigates to the Update Project action
* The user fills the details to be modified
* The user click on ‘’Update’’ Button and Project is updated successfully
* The user navigates to Delete Project action
* The user selects the Project to be deleted and Project is deleted successfully
* The user navigates to View Project action
* The user select the Project to be viewed and click on ‘’View’’
* The user can view the Project details for selected project

**3. Duration CRUD Operations**

* The user navigate to Duration Menu under Project component
* The user fills the Duration and other required fields
* The user click on “Create’’ Button and Duration is created successfully
* The user navigates to the Update Duration action
* The user fills the details to be modified
* The user click on ‘’Update’’ Button and Duration is updated successfully
* The user navigates to Delete Duration action
* The user selects the Duration to be deleted and Duration is deleted successfully
* The user navigates to View Duration action
* The user click on ‘’View’’
* The user can view the list of Duration available in TMS

**4. Company CRUD Operations**

* The user navigate to Company Menu under Project component
* The user fills the Company name and other required fields
* The user click on “Create’’ Button and Company is created successfully
* The user navigates to the Update Company action
* The user fills the details to be modified
* The user click on ‘’Update’’ Button and Company is updated successfully
* The user navigates to Delete Company action
* The user selects the Company to be deleted and Company is deleted successfully
* The user navigates to Company action
* The user click on ‘’View’’
* The user can view the list of Companies available in TMS

**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 analyze tasks. By enhancing collaboration, productivity, and transparency, TMS empowers organizations to achieve their goals effectively and adapt to dynamic business environments.