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Student Kit

Objective

The primary objective of the **Work Planner** system is to provide an efficient task management platform for teams. This system allows managers to assign, approve, and monitor the progress of tasks, while team members can view their assigned tasks, update progress, and suggest new tasks for approval. The system ensures transparency, accountability, and collaboration in team-based projects, enabling efficient completion of project goals. It simplifies task delegation, tracks progress, and enhances productivity by providing a seamless, user-friendly interface.

Requirements Specification (RS)

A Requirements Specification (RS) document is a critical component of software development projects. It outlines the detailed functional and non-functional of the system that needs to be developed. Below is an example of how you can structure an RS document for an Online work planner:

Sr No.	Requirement	Essential/Desirable	Description	Remarks
RS1	User Registration	Essential	Allow managers and team members to create a new account.	
RS2	User Login	Essential	Enable users to log in to the system	
RS3	View Task Details	Essential	Provide a detailed view of assigned tasks for team members.	

RS4	View Project Overview	Essential	Enable users to view tasks within their assigned projects.	
RS5	Update Contact Information	Essential	Allow users to update their contact information	
RS6	Update Task Preferences	Essential	Allow users to modify task preferences, such as deadlines or priority.	
RS7	Generate Telephone Bill	Essential	Generate a report of completed and pending tasks for a chosen period.	
RS8	Generate Project Reports	Essential	Generate project-based reports showing task progress and completion.	
RS9	Payment Processing	Desirable	Handle online payment for bills	
RS10	Notification System	Essential	Notify users for task assignments, updates, and completions.	

RS11	Data Security	Essential	Ensure the security and privacy of user data.	

Database Fields Specification

Customer Table

No.	Field Name	Range of valid values for the field	Remarks
1	User id	1 to 10000	Primary key for team members (Managers/Team Members).
2	First Name	Up to 15 characters in length.	Special characters like underscore are not allowed.
3	Last Name	Up to 15 characters in length.	
4	Email id	Up to 30 characters in length with valid email id rules.	
5	Password	Up to 15 characters in length.	Special characters like underscore are allowed.
6	Role	Manager or Team Member	Indicates whether the user is a manager or a team member.
7	Last Modified Date	Date	Tracks when the record was last updated
8	Last Modified by	Up to 30 characters in length.	User ID of the person who last modified the record.
9	Phone No.	1 to 10 integers in length.	Special characters are not allowed.
10	User Token	Up to 50 characters in length.	A unique token to identify the user for session handling.

Organization Table

No	Field Name	Range of Valid Values	Remark
1	Org-ID	1 to 10000	Unique identifier for each organization.
2	Org-Name	String	Name of the organization.
3	Org-Address	String	Address of the organization.
4	Contact Email	Valid email address format (e.g., example@example.com)	Contact email for the organization.

Payment Table

No	Field Name	Range of Valid Values	Remark
1	Payment-ID	1 to 10000	Unique identifier for each payment.
2	User-ID	1 to 10000	Unique identifier for the user making the payment.
3	Payment-Amount	1 to 10000	Amount of the payment.
4	Payment-Method	String (e.g., "Credit Card", "PayPal")	Payment method used for the transaction.

Billing table

No	Field Name	Range of Valid Values	Remark

1	Billing_ID	Alphanumeric, unique identifier	Unique identifier for each billing record.
2	User_ID	Alphanumeric	Unique identifier for the user being billed.
3	Bill_Amount	Decimal, non-negative values	Total amount of the bill.
4	Bill_Type	String (e.g., "Telephone", "Newspaper")	Type of bill (e.g., telephone, newspaper).

High Level/Detailed Design (HLD/DD)

Overview of the system :- For creating the **High Level/Detailed Design (HLD/DD) diagram**, it typically includes:

1. **User Roles and Interactions** (Managers and Team Members)
2. **Task Assignment Workflow**
3. **System Components** (Authentication, Task Management, Notifications, etc.)
4. **Database Relationships** (How users, tasks, and projects are connected)

Detailed Design (DD):

1. Manager Module:

- **Add Team Members**:
    - Managers can add and manage team members by providing their roles, contact information, and team assignment.
    - **Data Structure:** Team member profile (ID, name, role, skills, assigned team, etc.).
- **Create Projects**:

- Managers can create and manage projects with specific details like start and end dates, milestones, and team assignments.
- **Data Structure:** Project entity (ID, name, description, timeline, milestones).

- **Assign Tasks**:
  - Tasks can be assigned to team members based on their roles and skills. Tasks include deadlines, subtasks, and dependencies.
  - **Data Structure:** Task entity (ID, projectID, taskName, assignedMemberID, status, priority, etc.).

 Approve Tasks:

- Managers receive task suggestions from team members and can approve or reject them.
- **Data Structure:** Approval status (taskID, managerID, approvalStatus).

 Monitor Progress:

- Managers can monitor task completion and track progress for each team member and project. Reports can be generated periodically.
- **Data Structure

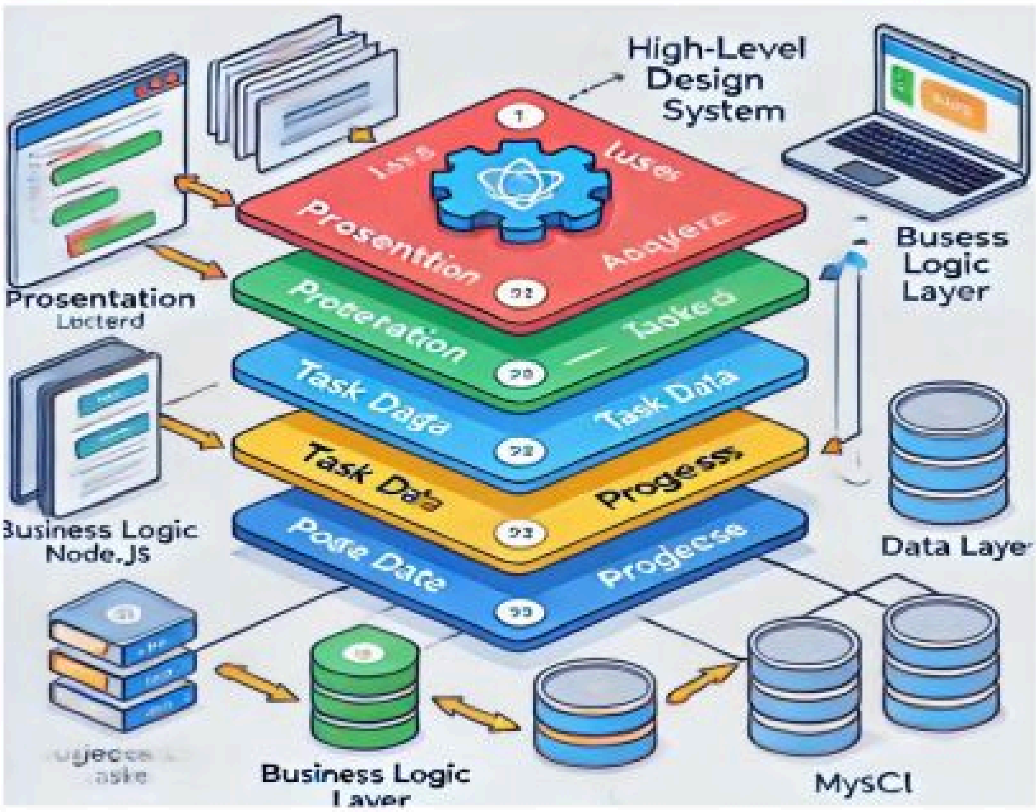

FIG:- **Detailed Design (HLD/DD)**

Design Components

The system features different screens based on the role of the user, whether they are a **Manager** or a **Team Member**. Below are the main design components for each role:

Manager User:

1. **Login/Registration Screen**
   - Provides access to the platform for managers.
2. **Dashboard/Home Screen**
   - Overview of all projects, tasks, and team member activities.
   - Quick access to pending task approvals and progress updates.
3. **Team Management**
   - Add, remove, or update team members' profiles, roles, and permissions.
4. **Project Management**
   - Create, edit, and view projects, set deadlines, and define milestones.
5. **Task Assignment**
   - Assign tasks to team members, set deadlines, and add task details.
6. **Task Approval Screen**
   - Approve or reject tasks suggested by team members.
7. **Task Progress Tracking**
   - Monitor task completion progress, view timelines, and track team productivity.
8. **Reports & Analytics**
   - Generate reports based on project progress, task completion, and team performance.
9. **Notifications and Alerts**
   - Alerts on task completions, pending approvals, deadlines, and project milestones.
10. **Settings**

- Manage preferences related to task assignment, approval workflows, and system notifications.

11. **Support and Contact**

- Access to support services and platform-related help.

12. **Logout**

- Exit the platform securely.

Team Member User:

1. **Login/Registration Screen**
   - **Login to access the platform with user-specific credentials.**
2. **Dashboard/Home Screen**
   - **View all assigned tasks, upcoming deadlines, and overall project status.**
3. **Task View/Management**
   - **View assigned tasks, task details, and progress expectations.**
4. **Suggest New Tasks**
   - **Propose new tasks or sub-tasks, pending approval from the manager.**
5. **Task Progress Updates**
   - **Update task completion status, add comments, and mark progress in real-time.**
6. **Task History**
   - **View the history of completed tasks, approvals, and rejections.**
7. **Notifications and Alerts**
   - **Receive alerts for task updates, approvals, deadlines, and reminders.**
8. **Collaboration Tools**
   - **Engage in team discussions, share documents, and communicate with other team members regarding tasks.**
9. **Settings**
   - **Manage personal preferences related to task view, progress updates, and notifications.**
10. **Support and Contact**

- **Access support for system-related issues or queries.**

11. **Logout**

- **Exit the platform securely.**

Test-Plan (TP)

The test-plan is basically a list of test cases that need to be run on the system. Some of the test cases can be run independently for some components (report generation from the database, for example, can be tested independently) and some of the test cases require the whole system to be ready for their execution. It is better to test each component as and when it is ready before integrating the components.

It is important to note that the test cases cover all the aspects of the system (ie, all the requirements stated in the RS document).

Se No.	Test Case Title	Description	Expected Result	Requirement in RS Table	Results
1	User Registration	Test the user registration process	User can successfully create a new account	RS_1	Passed
2	User Login	Test user login functionality	User can log in using valid credentials	RS_2	Passed
3	Manager Creates Project	Test the project creation process	Manager can create a new project with details	RS_3	Passed
4	Assign Task to Team Member	Test task assignment functionality	Team member can view tasks assigned by the manager	RS_4	Passed

5	Team Member Views Task	Test viewing of assigned tasks	Team member can suggest a task, pending approval	RS_5	Passed
6	Suggestion by Team Member	Test team member suggesting tasks	User can update their subscription preferences successfully	RS_6	Passed
7	Task Approval by Manager	Test task approval by the manager	Manager can approve or reject suggested tasks	RS_7	Passed
8	Update Task Progress	Test task progress updates by the team member	Team member can update task progress successfully	RS_8	Passed
9	Progress Monitoring by Manager	Test the progress monitoring functionality for managers	Manager can view task progress and generate progress reports	RS_9	Passed
10	Notification System	Test notifications for task assignments and approvals	Users receive notifications for task assignments and approvals	RS_10	Passed
11	Data Security	Test the security of user data and tasks	User data and tasks are secured	RS_11	Passed