**Admin/Owner Features**

1. **User Management**
   * + Can assign roles to user such as project manager or team member
     + Modify user details
     + Deactivate/activate user
     + Delete user
2. **Project Management**
   * + Can create ,update, delete and assign project to PM or TM
     + Archive or delete project
     + View all ongoing, complete & upcoming projects
3. **Team Management**
   * + Can create a teams such as Design , Development , Testing and assign users in particular team
4. **Task Management**
   * + Can create task , assign task, update task, give due date , view tasks
5. **Report & Analysis**

* Can view total projects , employee performance , completed projects within due date
* Export data to excel or pdf

**Project Manager Features**

1. **Project Management**

* Can update project details and also assign project to team members
* Can set timelines and milestones
* Can remove team member from perticular project if needed
* Can view all assigned projects given by the owner

1. **Task Management**

* Can create, update and delete tasks for the particular project and also assigns task to team members
* Can classify tasks into in progress , under review and completed
* Can set type of task(design,development,important,high priority ),due date of task , estimated time,and users name whom gave the task
* Can give detailed information about task by adding description , sub tasks and attaching files in task
* Can add notes with particular task

1. **Calender**

* Can separate tasks date wise in calander

1. **Report & Analysis**

* Can view total tasks done by employees and also watch time taken by employee to complete particular task

**Team Member Features**

1. **Task Management**

* Can view assigned tasks and also can update the status of tasks such as in progress to completed or stuck
* Also can add attach documents to the tasks
* Add comment in task if any query

1. **Personal dashboard**

* Can view own profile , completed tasks , projects and it’s details and many more….

**Client Features**

1. **Client Profile Management**

* Store client contact information (e.g., name, email, phone number).
* Maintain company details (e.g., company name, address).

1. **View All Projects**
2. **Communication**

* Communication between clients and the admin or project manager through messages or comments.
* Notify clients about project updates, timelines, and milestones.

1. **Feedback**

* Enable clients to give feedback on completed projects.

**Additional Features**

1. **Notifications**

* Admin and project manager send notification to the team member or project manager.
* Notification can be reminders about meeting or reminder about project or task deadlines

1. **Sprint**

* Admin can create a sprint
* Project Manager can assign tasks in sprints created by admin

1. **Comments**

* We can add one comment section where everyone can send message if they suffering with any problems related to projects or task or wanna give any instruction to everyone.

1. **Activity Log**

* Here we can access every activities performed by all by dates and times to save the log in memory

1. **Preview of task**

* Can create table view or kanban view for preview of task.

**User**

* Roles : Admin,Project manager or team member
* Registration , login , access for service

**Tables**

1. **Users**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| UserID | Int | Unique UserID |
| Name | Varchar(100) | Name of user |
| Email | Varchar(100) | Email of user (unique) |
| Password | Varchar(50) | Encrypted password for authentication |
| Role | Int | References UserRoles(RoleID) |
| Status | BIT | User Status : Active(1), Inactive(0), Default: Active(1) |
| CreatedAt | Datetime | Account creation date |
| UpdatedAt | Datetime | Updation date (allow null) |

1. **Clients**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| ClientID | Int | Unique ClientID |
| Name | Varchar(100) | Name of Client or Organization name |
| Email | Varchar(100) | Email of client |
| Phone | Varchar(50) | Contact number of client |
| Address | Varchar(50) | Address of Organization or client |
| Status | Bit | User Status : Active, Inactive, Default: Active |
| CreatedAt | Datetime | Account creation date |
| UpdatedAt | Datetime | Updation date (allow null) |

1. **Projects**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| ProjectID | Int | Unique project id |
| Titile | Varchar(100) | Project title |
| Description | Varchar(100) | Project description |
| ClientID | Int | Associated client who gave the project(Fk of client table) |
| StartDate | DATETIME | Project starting date |
| EndDate | DATETIME | Last date for completing project |
| Status | Varchar | Project Status : Ongoing', 'Completed', 'Upcoming', 'Archived' ,Default: 'Upcoming' |
| CreatedAt | Datetime | Project creation date |
| UpdatedAt | Datetime | Project update date(allow null) |

1. **Milestones**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| MilestoneID | Int | Unique milestone id |
| ProjectID | Int | References Projects(ProjectID) |
| Title | Varchar(100) | Title of milestone |
| DueDate | Datetime | End date to achive milestone |
| Status | varchar | Status : Pending , Achived , default:pending |

1. **Project Assignments**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| AssignmentID | Int | Unique assignment id |
| ProjectID | Int | References Projects(ProjectID) |
| UserID | Int | References Users(UserID) |
| Role | Int | References UserRoles(RoleID) |
| AssignedAt | Datetime | Date when project is assigned to PM or TM |

1. **Teams**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| TeamID | Int | Unique team id |
| Team Name | Varchar(100) | Team name |
| Description | Varchar(100) | Small info about team |
| CreatedAt | Datetime | Team creation date |
| UpdatedAt | Datetime | Modification date(allow null) |

1. **TeamMembers**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| TeamMemberID | Int | Unique team member id |
| TeamID | Int | References Teams(TeamID) |
| UserID | int | References Users(UserID) |
| AssignedAt | Datetime | Date of assignment in team |

1. **Tasks**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| TaskID | Int | Unique task id |
| Titile | Varchar(100) | Task title |
| Description | Varchar(100) | Task description |
| Task type | Int | References TaskType(TaskTypeID) |
| DueDate | DATETIME | Last date for completing task |
| Status | varchar | Project Status : in progress, Under Review, Completed ,Default : in progress |
| AssignedTo | Int | References Users(UserID) |
| ProjectID | int | References Projects(ProjectID) |
| CreatedAt | Datetime | Task creation date |
| UpdatedAt | Datetime | Task update date(allow null) |

1. **TaskType**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| TaskTypeID | Int | Unique Task type id |
| Tasktype Name | Varchar | Type of tasks |

1. **TaskAssignments**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| AssignmentID | Int | Unique assignment id |
| TaskID | Int | References Task(TaskID) |
| UserID | Int | References Users(UserID) |
| Role | Int | References UserRoles(RoleID) |
| AssignedAt | Datetime | Date when Task is assigned to PM or TM |

1. **TaskAttachments**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| AttachmentID | Int | Unique task Attachment id |
| TaskID | Int | References Tasks(TaskID) |
| FilePath | int | Path of file that we want to upload |
| UploadedAt | Datetime | Date of file upload |

1. **TaskComments**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| CommentID | Int | Unique task Comment id |
| TaskID | Int | References Tasks(TaskID) |
| UserID | Int | References Users(UserID) |
| Comment | Varchar | Comment that we want to add in task for particular user |
| CreatedAt | Datetime | Date of Comment creation |

1. **Notifications**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| NotificationID | Int | Unique notification id |
| SenderID | Int | References Users(UserID) |
| ReceiverID | Int | References Users(UserID) |
| Message | Varchar | Message that we want to send in Notification |
| SendAt | Datetime | Date of Notification send to users |
| IsRead | Bit | True is notification is readed by user else false…default:0 |

1. **ActivityLog**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| ActivityID | Int | Unique activity id |
| UserID | Int | References Users(UserID) |
| Action | Varchar | Action that is performed by employer |
| ActionTime | Datetime | Date and time of action when is caused |

1. **UserRoles**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| RoleID | Int | Unique role id |
| RoleName | Varchar | Name of role(Admin,PM,TM,Client) |
| Description | Varchar | About role |

1. **Sprints**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| SprintID | Int | Unique sprint id |
| ProjectID | Int | References Projects(ProjectID) |
| StartDate | Datetime | Start date of the sprint. |
| EndDate | DateTime | End date of the sprint (1-week duration). |
| Status | varchar | Sprint status (Ongoing, Completed, Failed). |
| Goals | Varchar | Objectives or goals of the sprint. |

1. **SprintTasks**

|  |  |  |
| --- | --- | --- |
| **Column** | **Data type** | **Description** |
| SprintTaskID | Int | Unique SprintTask id |
| SprintID | Int | Sprint associated with the task.(Fk of sprint table) |
| TaskID | Int | Task assigned to this sprint.(FK of task table) |

**RelationShips**

1. **User and Projects:**

* One User(admin) can create multiple projects

1. **Client and Projects:**

* One Client can give multiple projests

1. **Projects and Tasks:**

* One Project have multiple tasks

1. **Teams and Team members:**

* One team can have multiple members in team.

1. **User and UserRoles**

* Each user is assigned one role

1. **Teams and Projects**

* Teams can be assigned to multiple projects, and projects can involve multiple teams

1. **Projects and Sprints**

* One project have n numbers of sprints

1. **Sprint and SprintTasks**

* In one sprint there can be add multiple tasks