# Database Schema Design for Business Managing Project

## 1. Users Table

| Field Name | Data Type | Constraints | |
|---|---|---|---|
| user_id | INT | PRIMARY KEY, AUTO_INCREMENT | |
| email | VARCHAR (255) | UNIQUE, NOT NULL | |
| password | VARCHAR (255) | NOT NULL | |
| full_name | VARCHAR (255) | NOT NULL | |
| role | ENUM | NOT NULL | |
| Created-at | DATETIME | DEFAULT CURRENT_TIMESTAMP | |
| updated_at | DATETIME | ON UPDATE CURRENT_TIMESTAMP | |

**Purpose**: It handles sign-up, sign-in, and forgot/reset password functionality.

## 2. Organizations Table

| Field Name | Data Type | Constraints |
|---|---|---|
| org_id | INT | PRIMARY KEY, AUTO_INCREMENT |
| name | VARCHAR (100) | NOT NULL |
| super_admin_id | INT | FOREIGN KEY (Users.user_id), NOT NULL |
| created_at | DATETIME | DEFAULT CURRENT_TIMESTAMP |
| updated_at | DATETIME | ON UPDATE CURRENT_TIMESTAMP |

**Relationships**: super_admin_id references Users(user_id) (One super admin per organization).

# 3. Organization_Members Table

| Field Name | Data types | Constraints |
|---|---|---|
| org_member_id | INT | PRIMARY KEY, AUTO_INCREMENT |
| org_id | INT | FOREIGN KEY (Organizations.org_id), NOT NULL |
| user_id | INT | FOREIGN KEY (Users.user_id), NOT NULL |
| role | ENUM | NOT NULL |
| joined_at | DATETIME | DEFAULT CURRENT_TIMESTAMP |

**Relationships:**

- org_id references Organizations(org_id).
- user_id references Users(user_id).

# 4. Teams Table

| Field Name | Data Types | Constraints |
|---|---|---|
| team_id | INT | PRIMARY KEY, AUTO_INCREMENT |
| org_id | INT | FOREIGN KEY (Organizations.org_id), NOT NULL |
| name | VARCHAR (100) | NOT NULL |
| created_at | TIMEDATE | DEFAULT CURRENT_TIMESTAMP |

**Relationships**:

- org_id references Organizations(org_id).

# 5. Team_Members Table

| Field Name | Data Type | Constraints |
|---|---|---|
| team_member_id | INT | PRIMARY KEY, AUTO_INCREMENT |
| team_id | INT | FOREIGN KEY (Teams.team_id), NOT NULL |
| user_id | INT | FOREIGN KEY (Users.user_id), NOT NULL |
| role | ENUM | NOT NULL |
| joined_at | TIMEDATE | DEFAULT CURRENT_TIMESTAMP |

**Relationships**:

- team_id references Teams(team_id).
- user_id references Users(user_id).

# 6. Projects Table

| Field Name | Data Type | Constraints |
|---|---|---|
| project_id | | |
| org_id | | |
| team_id | | |
| created_by | | |
| name | | |
| description | | |
| created_at | | |
| updated_at | | |

**Relationships**:

- org_id references Organizations(org_id).
- team_id references Teams(team_id).
- created_by references Users(user_id).

# 7. Milestones Table

| Field Name | Data Type | Constraints |
|---|---|---|
| milestone_id | INT | PRIMARY KEY, AUTO_INCREMENT |
| project_id | INT | FOREIGN KEY (Projects.project_id), NOT NULL |
| name | VARCHAR (100) | NOT NULL |
| description | TEXT | NULL |
| status | ENUM | DEFAULT 'pending' |
| due_date | NULL | NULL |
| created_at | DEFAULT CURRENT_TIMESTAMP | DEFAULT CURRENT_TIMESTAMP |

**Relationships**:

- project_id references Projects(project_id).

# 8. Chats Table

| Field Name | Data Type | Constraints |
|---|---|---|
| chat_id | INT | PRIMARY KEY, AUTO_INCREMENT |
| sender_id | INT | FOREIGN KEY (Users.user_id), NOT NULL |
| receiver_id | INT | FOREIGN KEY (Users.user_id), NULL |
| team_id | INT | FOREIGN KEY (Teams.team_id), NULL |
| message | TEXT | NOT NULL |
| sent_at | DATETIME | DEFAULT CURRENT_TIMESTAMP |

**Relationships**:

- sender_id references Users(user_id).
- receiver_id references Users(user_id) (this is for 1:1 chat).
- team_id references Teams(team_id) (for group chats).