**Task Manager**

**Entities:**

1. User
2. Project
3. Task
4. Role
5. Project user
6. Comment

**Attributes**

1. User:
   1. Userid: Primary key
   2. Username: Single Valued
   3. Password: Single Valued
   4. Email: Single Valued
   5. Role: Foreign key Valued
   6. Phone: Single valued
2. Project
   1. Project id: Single valued
   2. Project title: Single Valued
   3. Description: Single Valued
   4. Start date: Single Valued
   5. End date: Single Valued
   6. Manager id: foreign key
   7. Assigned to: multi valued
3. Task:
   1. Taskid: Single valued
   2. Title: Single Valued
   3. Description: Single Valued
   4. Type: Single Valued
   5. Status: Single Valued
   6. Assigned id: Single Valued
   7. Start date: Single Valued
   8. End date: Single Valued
   9. Updated at: Single Valued
4. Role
   1. Role id: primary key
   2. Name: Single Valued
   3. Permissions: Single Valued
5. Project user
   1. Id: primary key
   2. Project: foreign key
   3. User id: foreign key
6. Comments
   1. Comment id: primary key
   2. title: Single Valued
   3. description: foreign key
   4. Comment date: foreign key
   5. Comments: single valued

Relations

1. User🡪Role: 1 to 1
2. User🡪Project: M to N
3. User🡪Task: 1 to M
4. Task🡪Comment: 1 to M

Tables

1. Roles

|  |  |  |
| --- | --- | --- |
| Roleid | PK,NOT NULL,Auto Increment |  |
| RoleName | NOT NULL,UNIQUE,CHECK |  |

1. UserInfo

|  |  |  |
| --- | --- | --- |
| User id | PK,NOT NULL, Auto Increment |  |
| User Name | Not Null |  |
| Role | FK with the role table |  |
| Email | Not null,unique |  |
| Password | Not null, max length |  |
| Phone | Not null |  |

3.Project

|  |  |  |
| --- | --- | --- |
| Proj id | PK,NOT NULL, Auto Increment |  |
| Title | Not Null,Unique |  |
| Description | Null |  |
| Start Date | Not null |  |
| End date | Null |  |
| Manager | FK with user |  |

4.ProjectMember [bridge table]

|  |  |  |
| --- | --- | --- |
| Member id | PK,NOT NULL, Auto Increment | 1 2 |
| User id | Not Null,FK with user | Combination is unique |
| Projid | Not Null,FK with Project | Combination is unique |

TasktypeMaster:

|  |  |  |
| --- | --- | --- |
| Tasktypeid | Pk,not null,auto increment |  |
| Task type name | Not,null,unique | Combination is unique |

1. Task

|  |  |  |
| --- | --- | --- |
| Task id | PK,NOT NULL, Auto Increment | 1 2 |
| Task title | Not Null,FK with user | Combination is unique |
| Projid | Not Null,FK with Project | Combination is unique |
| Assigned to | Not Null Fk with project member |  |
| Task Type | Not Null |  |
| Start Date | Null |  |
| End Date | NULL |  |
| Task Status | Not Null |  |

1. Comment

|  |  |
| --- | --- |
| Comment id | PK,not null,auto |
| title | Not null |
| parenttaskid | Not null,fk with task |
| TaskDescription | null |
| Comment by | Not null, fk with project member |
| CommentDate | Not null |