**Task Manager -Project Management Tool**

**Entities:**

* **User**
* **Role**
* **Project**
* **ProjectManager**
* **Task**
* **Comment**

**User:**

* 1. UserId (Primary Key)
  2. Name Single valued
  3. Email single valued
  4. Password single valued
  5. RoleID Foreign Key

**Role:**

* 1. RoleID Primary Key
  2. RoleName Multi valued

**Project:**

* 1. ProjectID Primary Key
  2. ProjectName Single valued
  3. Description single valued
  4. CreatedBy FK To UserID(admin)
  5. ProjectManagerID FK to userID

**ProjectAssignment:**

* 1. AssignmentID Primark key
  2. ProjectID FK
  3. UserID FK

**Task:**

TaskID PK

ProjectID FK

Titile Single valued

Description

Type

Status multi valued

CreatedBY FK

**1.User Entity:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Attribute Name** | **Category** | **Test Date/Info** |
| 1 | UserId | Single valued |  |
| 2 | UserName | Single valued |  |
| 3 | Role | multi | Admin.PM,Dev or QA |
| 4 | Phone | Single valued |  |
| 5 | Email | Single valued |  |
| 6 | Password | Single valued |  |

**2.Project:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Attribute Name** | **Category** | **Test Date/Info** |
| 1 | ProjId | Single vaued |  |
| 2 | Title | Single vaued |  |
| 3 | Description | Single vaued |  |
| 4 | Start Date | Single vaued |  |
| 5 | End Date | Single vaued |  |
| 6 | PM | Single vaued |  |
| 7 | Assigned To | Multi valued |  |

**3.Task:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Attribute Name** | **Category** | **Test Date/Info** |
| 1 | TaskId | Single vaued |  |
| 2 | Task Title | Single vaued |  |
| 3 | Description | Single vaued |  |
| 4 | Task Status | Multi vaued | OPEN,INPROGRESS,RESOLVED,CLOSED |
| 5 | Assigned To | Multi valued |  |

**4.Comments:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Attribute Name** | **Category** | **Test Date/Info** |
| 1 | CommentId | Single vaued |  |
| 2 | Title | Single vaued |  |
| 3 | Description | Single vaued |  |
| 4 | Comment Date | Single vaued |  |
| 5 | Comment By | Single valued |  |
| 6 | ParentTaskId | Single vaued |  |

**Relations:**

User-> Role :1 to 1

User->Project : M to N

User->Task : 1 to M

Task->Comment : 1 to M

**Tables**

**1.Role:**

|  |  |  |
| --- | --- | --- |
| RoleId | PK,NOT NULL,AUTO INCREMENT |  |
| RoleName | NOT NULL,UNIQUE,CHECK |  |

**2.UserInfo:**

|  |  |  |
| --- | --- | --- |
| User ID | NOT NULL,PK,AUTO INCREMENT |  |
| UserName | NOT NULL |  |
| Role | FK with Role Table |  |
| Email | NOT NULL ,UNIQUE |  |
| Password | NOT NULL ,MAXLENGTH 10 |  |
| Phone | NOT NULL |  |

**3.Project**

|  |  |  |
| --- | --- | --- |
| ProjId | PK,NOT NULL,AUTO INCREMENT |  |
| Title | NOT NULL,UNIQUE |  |
| Description | NULL |  |
| Start Date | NOT NULL |  |
| End Date | NULL |  |
| PM | FK with User |  |
| Assigned To | FK with User |  |

**4.ProjectMember:(Bridge Table)**

|  |  |  |
| --- | --- | --- |
| MemberId | PK,NOT NULL,AUTO INCREMENT | 1 2 |
| UserId | NOT NULL,FK with User | Combination is Unique |
| ProjId | NOT NULL,FK with Project |  |

**5.Task:**

|  |  |  |
| --- | --- | --- |
| TaskId | PK,NOT NULL,AUTO INCREMENT |  |
| Task Title | NOT NULL,FK with User |  |
| Description | NULL |  |
| Assigned To | NOT NULL,FK with Project Member |  |
| Task Type | NOT NULL |  |
| Start Date | NULL |  |
| End Date | NULL |  |
| Task Status | NOT NULL |  |

**6.TaskTypeMaster:**

|  |  |  |
| --- | --- | --- |
| TaskTypeId | PK,NOT NULL,AUTO INCREMENT |  |
| TaskType Name | NOT NULL | Open,INProgress,Resolved,Closed |

**Comment:**

|  |  |
| --- | --- |
| CommentId | PK,NOT NULL,AUTO |
| Title | NOT NULL |
| ParentTaskId | NOT NULL,FK with Task |
| TaskDescription | NULL |
| Comment By | NOT NULL,FK with Task TypeMaster |
| CommentDate | NOT NULL |