Online Project Management System:

1. SRS Document:

Document: System Requirement Specification Document

Title: Online Project Management System

Objective:

The objective of the online project management system is to provide users with a platform to manage and track projects, tasks, and user assignments. The system aims to streamline project collaboration, enhance productivity, and facilitate effective project monitoring and reporting.

Scope:

The online project management system will allow users to create and manage projects, assign tasks to team members, track task progress, and generate project reports. It will also include features such as user authentication, project timelines, task dependencies, and document sharing.

Functional Requirements:

User Management:

User Registration: Users should be able to register for an account.

User Authentication: Users should be able to log in to their account securely.

User Profile Management: Users should be able to view and update their profile information.

Project Management:

Project Creation:

Users should be able to create new projects.

Project Listing: Users should be able to view a list of all projects.

Project Details: Users should be able to view and edit project details, such as name, description, and dates.

Task Management:

Task Creation: Users should be able to create tasks within projects.

Task Assignment: Users should be able to assign tasks to team members.

Task Tracking: Users should be able to track the progress and completion status of tasks.

Team Collaboration:

Team Assignment: Users should be able to assign team members to projects.

Communication: Users should be able to collaborate and communicate with team members within the system.

Non-functional Requirements:

- Usability

- Availability

- Compatibility

- Reliability

- Scalability

- Security

- Performance

- User Privacy

Functional Operations:

User Registration

User Login

User Profile Update

Project Creation

Project Listing

Project Details View/Edit

Task Creation

Task Assignment

Task Tracking

Team Assignment

Communication with Team Members

2. Business Entities and Table Queries:

Business Entities:

User (UserID [PK], Username, Password, Email, Phone)

Project (ProjectID [PK], ProjectName, Description, StartDate, EndDate)

Task (TaskID [PK], ProjectID [FK], TaskName, Description, StartDate, EndDate)

TaskAssignment (AssignmentID [PK], UserID [FK], TaskID [FK], AssignmentDate, Status)

Table Creation Queries:

```
CREATE TABLE User (

  UserID INT PRIMARY KEY,

  Username VARCHAR(50),

  Password VARCHAR(50),

  Email VARCHAR(100),

  Phone VARCHAR(20)

);


CREATE TABLE Project (

  ProjectID INT PRIMARY KEY,

  ProjectName VARCHAR(100),

  Description VARCHAR(255),

  StartDate DATE,
```

```sql
    EndDate DATE

);


CREATE TABLE Task (

    TaskID INT PRIMARY KEY,

    ProjectID INT,

    TaskName VARCHAR(100),

    Description VARCHAR(255),

    StartDate DATE,

    EndDate DATE,

    FOREIGN KEY (ProjectID) REFERENCES Project(ProjectID)

);


CREATE TABLE TaskAssignment (

    AssignmentID INT PRIMARY KEY,

    UserID INT,

    TaskID INT,

    AssignmentDate DATE,

    Status VARCHAR(50),

    FOREIGN KEY (UserID) REFERENCES User(UserID),

    FOREIGN KEY (TaskID) REFERENCES Task(TaskID)

);
```