

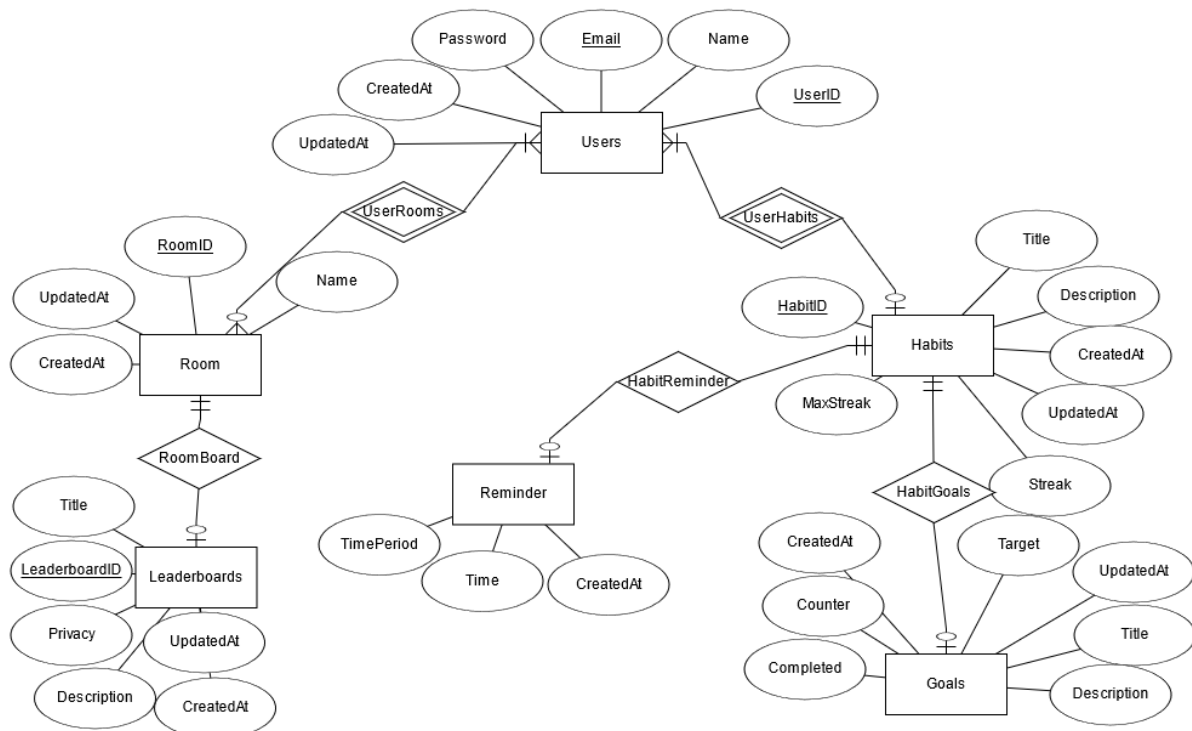
# DBMS MINI PROJECT

**Name:** Himanshi Gupta  
John J.J.

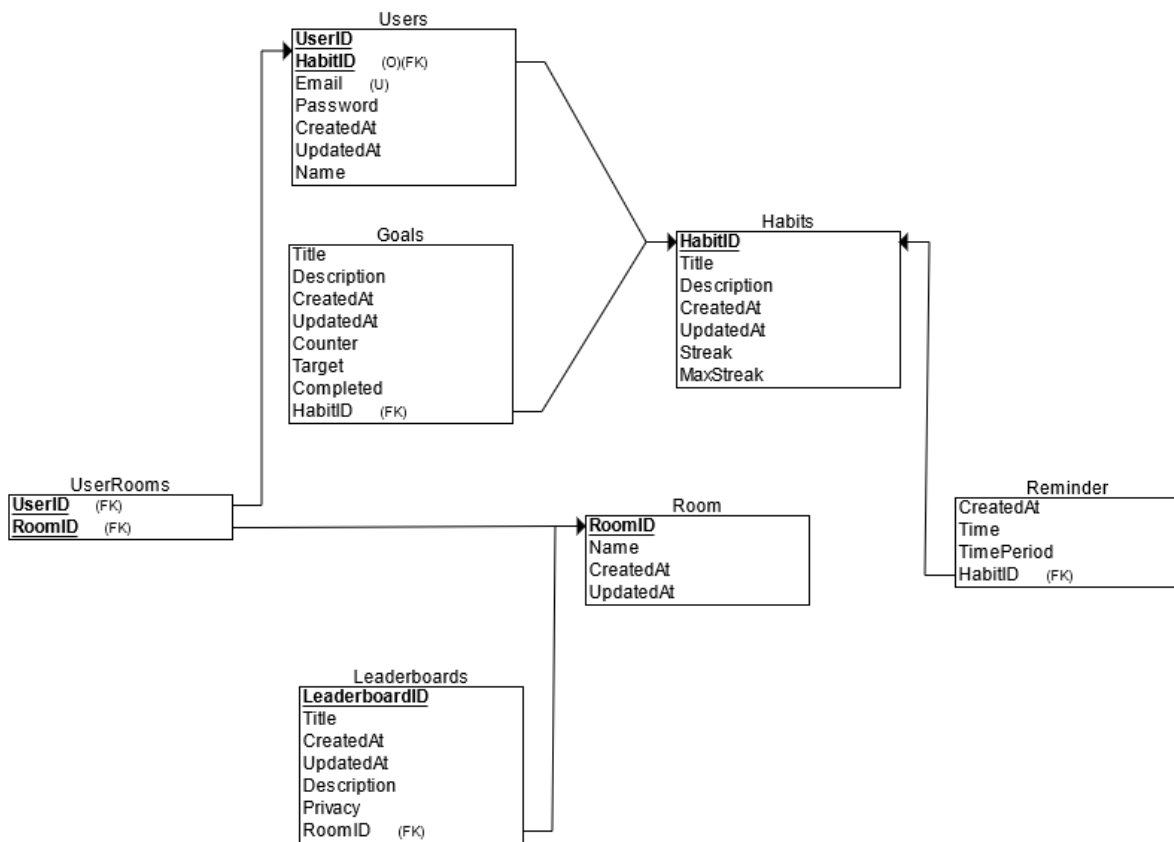
**SRN :** PES1UG21CS231  
PES1UG21CS248

**Section :** D

## ER DIAGRAM



# RELATIONSHIP SCHEMA



# **DBMS - User requirement Specification**

## **1. Introduction:**

### **a. Purpose of the project:**

The purpose of this project is to develop a comprehensive habit tracker application that allows users to build and maintain positive goal-oriented habits effectively while fostering a sense of community. This application will enable users to monitor their personal habits, track their progress, and engage with their friends' habits. Additionally, the project will incorporate a social element by creating rooms where users can interact with others pursuing similar goals. These rooms will not only facilitate discussions and mutual support but also maintain leaderboards to showcase users' commitment by tracking metrics such as the number of days a habit was tracked and when it was created.

### **b. Scope of the project:**

The project aims to develop a Habit Tracker application with the following key features:

1. Habit tracking and management.
2. Progress monitoring and visualization.
3. Social interaction through user-created rooms.
4. Leaderboards to encourage competition.
5. User-created custom habit rooms.
6. User profiles with privacy controls.
7. Strong data security measures.
8. Feedback collection and continuous improvement.
9. Scalability for future enhancements.

## **2. Project Description:**

### **a. Project overview:**

The Habit Tracker project is an innovative digital solution designed to empower individuals in their quest to build and sustain positive habits effectively. This comprehensive application not only serves as a personal habit-tracking tool but also fosters a sense of community by enabling

users to connect with friends and like-minded individuals pursuing similar goals. It combines the power of habit formation with social interaction to create a compelling and engaging user experience.

## **b. Major project functionalities:**

### **1. *Habit Tracking and Management:***

- Users can easily add, edit, and delete habits, specifying their frequency, goals, and reminders.
- Habit tracking is made convenient through a user-friendly interface, encouraging consistent monitoring.

### **2. *Progress Monitoring:***

- Visual representations and statistics help users track their progress over time, providing motivation and accountability.

### **3. *Social Interaction:***

- Users can connect with friends, follow their habits, and engage in discussions and support within user-created rooms.
- The application encourages social accountability and mutual encouragement.

### **4. *Leaderboards:***

- Habit rooms feature leaderboards to recognize top performers based on habit tracking achievements, fostering friendly competition.

### **5. *Room Creation:***

- Users have the ability to create custom habit rooms, inviting others to join and participate in habit-focused communities.

### **6. *User Profiles:***

- User profiles display tracked habits, progress, and contributions within the habit-tracking community.
- Users can customize their profiles and control privacy settings.

### **7. *Data Security:***

- Stringent security measures protect user data, including personal habits and interactions, ensuring privacy and confidentiality.

### **8. *Feedback and Iteration:***

- Continuous user feedback is actively collected and used to enhance features, address issues, and improve the user experience.

9. **Scalability:**

- The project is designed to accommodate a growing user base and future feature expansions.

10. **Testing and Quality Assurance:**

- Rigorous testing procedures are implemented to ensure the application's reliability, performance, and overall quality.

### 3. **System Features and Function Requirements**

#### a. **System Features:**

- **User authentication and authorization:**

Users must be able to create accounts and log in to the app. The app should also be able to authorize users to access different features of the app, such as creating and managing habits, goals, and rooms.

- **Habit tracking:**

Users should be able to create and manage habits, track their progress, and view their habit history.

- **Goal setting and tracking:**

Users should be able to set goals for their habits, track their progress towards those goals, and view their goal history.

- **Room creation and management:**

Users should be able to create and manage rooms, which are groups of users who are working towards similar goals.

- **Leaderboard management:**

The app should have a leaderboard that shows the top users or rooms based on their habit tracking progress.

#### b. **Functional Requirements:**

##### **Users:**

- Users should be able to create an account and log in to the app.

- Users should be able to view their profile information, such as their name and email address.
- Users should be able to update their profile information.
- Users should be able to delete their account.

### **Habits:**

- Users should be able to create new habits.
- Users should be able to edit existing habits.
- Users should be able to delete habits.
- Users should be able to track their progress on habits.
- Users should be able to view their habit history.

### **Goals:**

- Users should be able to set goals for their habits.
- Users should be able to track their progress towards their goals.
- Users should be able to view their goal history.

### **Rooms:**

- Users should be able to create new rooms.
- Users should be able to edit existing rooms.
- Users should be able to delete rooms.
- Users should be able to join existing rooms.
- Users should be able to leave rooms.
- Users should be able to view a list of all the rooms they are a member of.

### **Leaderboards:**

- The app should have a leaderboard that shows the top users or rooms based on their habit tracking progress.
- Users should be able to view their ranking on the leaderboard.