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# Stadium Management System

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## Introduction

Our concept was inspired by the observation that reserving a stadium for a game requires tedious paperwork, which makes it challenging for the stadium administration to swiftly and effectively keep and retrieve the information.

We will be digitizing the process of storing and retrieving all the information related to the Stadium, Teams and its members, billing, stadium staff, team reservation, etc. by developing a database for a stadium administration that has numerous fields or stadiums in a city. In accordance with the seats available, we will also generate tickets for fans who want to see the game at a given time and date with the preferred seat type.

## Entities (with Attributes)

1. **Stadiums** (Stadium entity has information regarding stadium type, seats capacity etc)
  - a. **Stadium ID**
  - b. **Stadium Name**
  - c. **Stadium Type (Football, Cricket, Hockey turf, etc)**
  - d. **Address**
  - e. **Postal Code**
  - f. **Stadium Capacity (seats)**
2. **Teams** (Teams will provide their details before reserving a stadium)
  - a. **Team ID**
  - b. **Team Name**
  - c. **No. of Team Members**
  - d. **Team Owner**
3. **Team Members** (This entity contains member's details and the team they belongs to)
  - a. **Member ID (CNIC)**
  - b. **Team ID (Member belongs to which team)**
  - c. **Member First Name**
  - d. **Member Last Name**

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- e. **Phone Number**
  - f. **Sex**
  - g. **Position**
4. **Billing** (Total billing for reserving stadium, calculated as rate/hour)
- a. **Invoice Number**
  - b. **Team ID**
  - c. **Rate (per hour)**
  - d. **Reservation Hours**
  - e. **Total Cost**
5. **Team Reservation** (Total summary of the reservation of teams i.e. starting and ending time of reservation, team information and the stadium they chose. Furthermore, It will contain the total cost of reservation as well)
- a. **Date**
  - b. **Start Time**
  - c. **End Time**
  - d. **Team ID**
  - e. **Stadium ID**
  - f. **Invoice Number**
6. **Tickets** (Ticket entity contains information regarding stadium, and time of the match and ticket price. It will not contain the details of spectators. Ticket price could vary according to types of seats)
- a. **Ticket ID**
  - b. **Date**
  - c. **Time**
  - d. **Stadium ID**
  - e. **Seat Type (Lower, Economy, First Class)**
  - f. **Ticket Price (according to Seat Type)**
7. **Stadium Staff** (It will contain the information about staff working in the stadium, types of staff and their salary as well)
- a. **Staff ID**
  - b. **First Name**
  - c. **Last Name**
  - d. **Role (Manager, Supervisor, Gardener, Electrician)**
  - e. **Phone Number**
  - f. **Salary**
  - g. **Hire Date**