# DAT602 ASSIGNMENT 2- MILESTONE 1

Submitted By - Abhimanu Saharan, NMIT ID: 13497164

## Storyboards & Description

This will be the usual snake and ladder game which can be played online with matched players- designed using SQL as database management script. The players login details, position on board, and high score will be stored in the database.

The screens will be as follows:

1. Login Screen

# Register / Login

username     [           ]

password     [           ]

**Start New Game**

**Continue Last Game**

If the username is not registered it will register with a new user. If already registered, the system will check for the password and login the user. The user can continue the last game or start a new game.

2. Game Board



The user will click on the dice to generate a random number between 1-6 and the user's stick will move the number of steps equal to the dice number. If the user steps on a field with a snake or ladder object, they will move to the corresponding field.
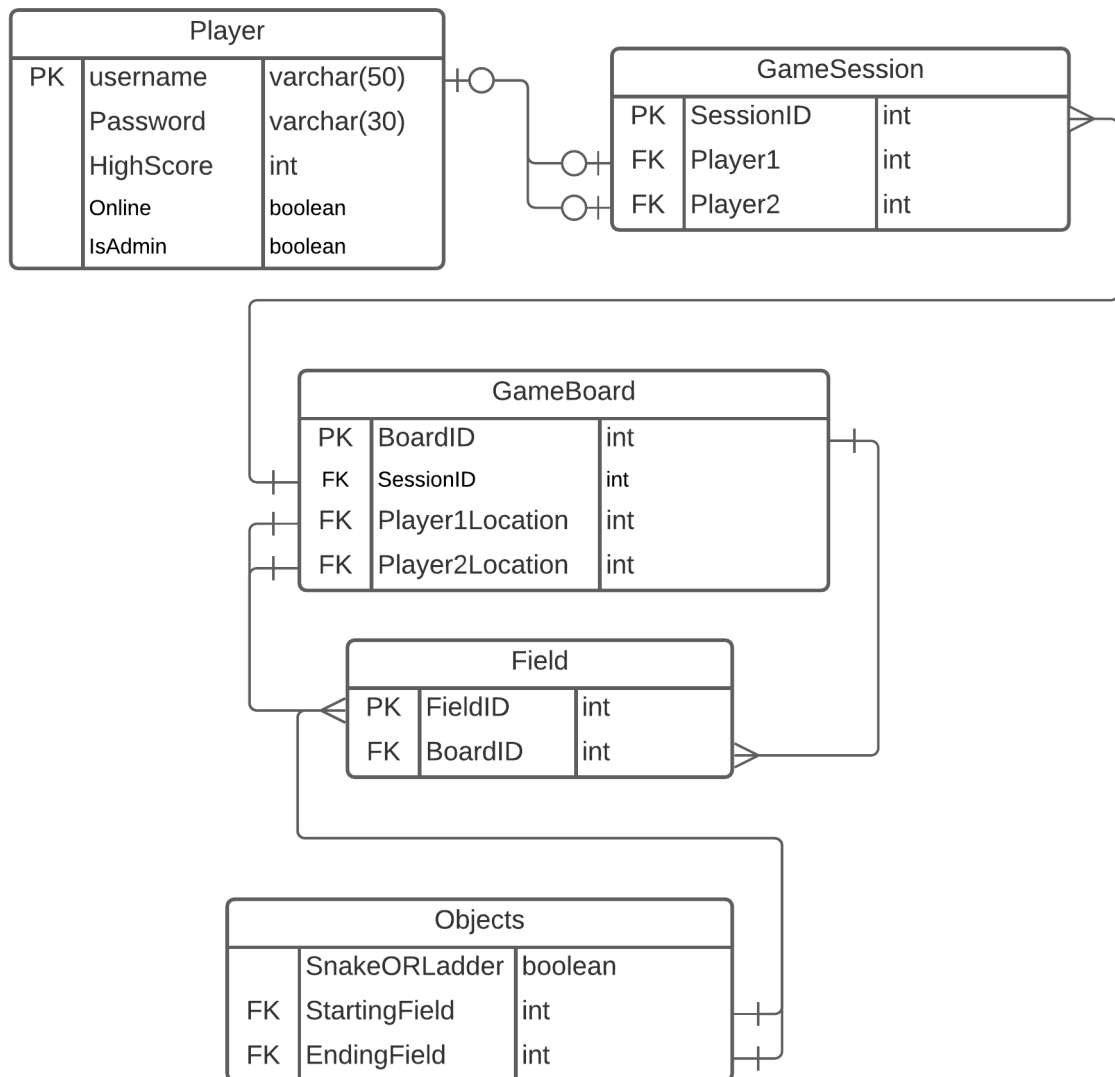
3. Admin Panel



The admins will be able to add or remove players from the admin panel and also stop running games.

# ERD

## Player

| PK | username | varchar(50) |
|----|----------|-------------|
|    | Password | varchar(30) |
|    | HighScore | int |
|    | Online | boolean |
|    | IsAdmin | boolean |

## GameSession

| PK | SessionID | int |
|----|-----------|-----|
| FK | Player1 | int |
| FK | Player2 | int |

## GameBoard

| PK | BoardID | int |
|----|---------|-----|
| FK | SessionID | int |
| FK | Player1Location | int |
| FK | Player2Location | int |

## Field

| PK | FieldID | int |
|----|---------|-----|
| FK | BoardID | int |

## Objects

|    | SnakeORLadder | boolean |
|----|---------------|---------|
| FK | StartingField | int |
| FK | EndingField | int |

# CRUD Table

| | PLAYER | | | | | GameSession | | | Field | | Board | | | Objects | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | UserID | Password | High Score | Online | IsAdmin | Session ID | Player1 | Player2 | FieldID | BoardID | BoardID | Player1Location | Player2Location | ObjectID | ObjectLocation | Type | DiceValue |
| Register New Player | C | C | U | | U | | | | | | | | | | | | |
| Login | R | R | R | U | | R | | | | | | | | C | C | C | |
| Start Game | | | | | | | R | R | U | U | C | U | U | | | | |
| Roll Dice | | | | | | | | | | | | | | | | | U |
| Move Player | | | | | | | | | R | R | R | U | U | | | | R |
| Delete Player | U | U | U | U | R | | | | | | | | | | | | |
| High Score | | | U | | | R | R | | R | | | R | R | | | | |