Lab 2: ER Model

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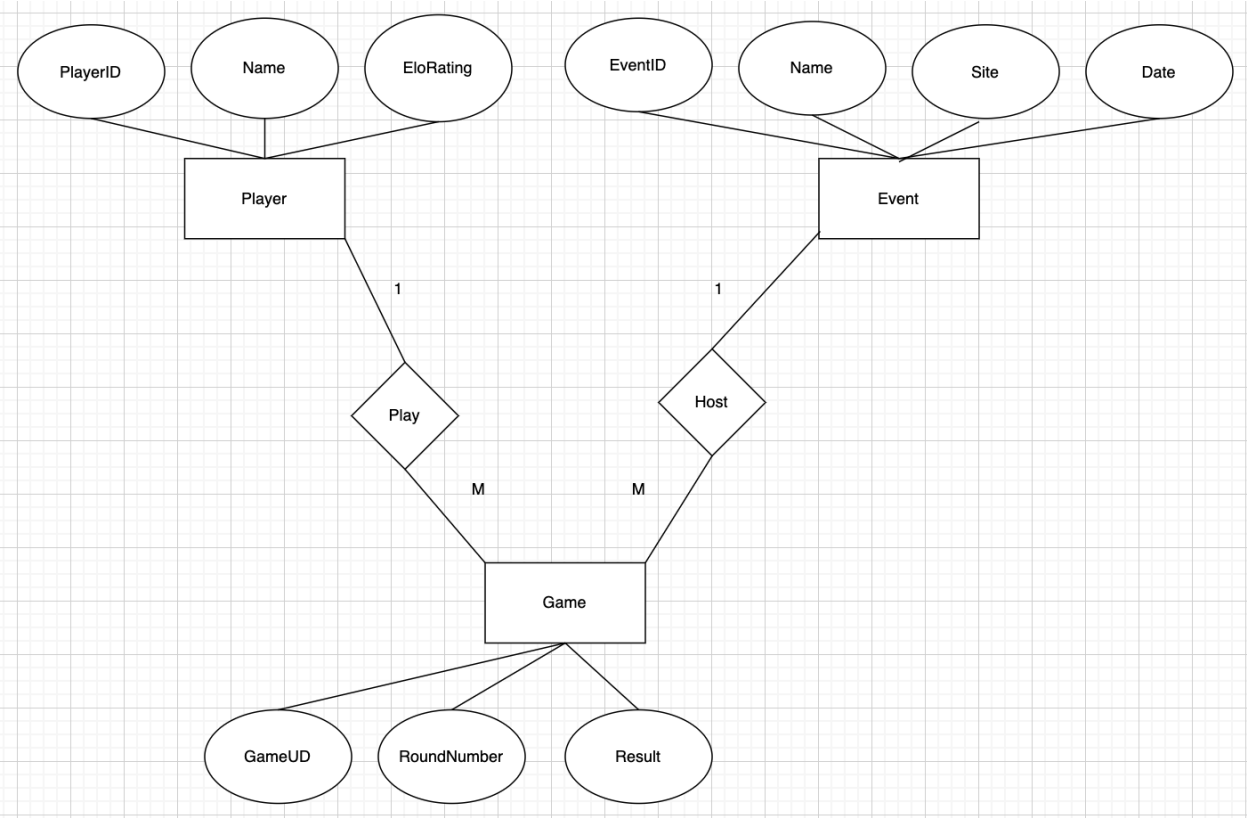
Part 1 - ER Diagram for Chess Database



Part 2: SQL Tables

Schemas:

1. **Player**: Represents the player entity.

- PlayerID (Primary Key)
- Name
- EloRating

2. **Event**: Represents the event entity.

- EventID (Primary Key)
- Name

- Site
- Date

3. **Game**: Represents the game entity.

- GameID (Primary Key)
- RoundNumber
- Result

4. **Play**: Represents the many-to-many relationship between Player and Game.

- PlayerID (Foreign Key)
- GameID (Foreign Key)

5. **Host**: Represents the many-to-many relationship between Event and Game.

- EventID (Foreign Key)
- GameID (Foreign Key)

SQL Commands:

```
-- Create Player table
CREATE TABLE Player (
   PlayerID INT PRIMARY KEY,
   Name VARCHAR(255) NOT NULL,
   EloRating INT
);
```

```
-- Create Event table
CREATE TABLE Event (
   EventID INT PRIMARY KEY,
   Name VARCHAR(255) NOT NULL,
   Site VARCHAR(255),
   Date DATE
);

-- Create Game table
CREATE TABLE Game (
   GameID INT PRIMARY KEY,
   RoundNumber INT NOT NULL,
   Result VARCHAR(50)
);

-- Create Play table (many-to-many relationship between Player and Game)
CREATE TABLE Play (
   PlayerID INT,
   GameID INT,
   PRIMARY KEY (PlayerID, GameID),
   FOREIGN KEY (PlayerID) REFERENCES Player(PlayerID),
   FOREIGN KEY (GameID) REFERENCES Game(GameID)
);
```

```
-- Create Host table (many-to-many relationship between Event and Game)
CREATE TABLE Host (
    EventID INT,
    GameID INT,
    PRIMARY KEY (EventID, GameID),
    FOREIGN KEY (EventID) REFERENCES Event(EventID),
    FOREIGN KEY (GameID) REFERENCES Game(GameID)
);
```