Cairo University SEM – team 21

Faculty of Engineering

Computer Engineering Department

CMP 202 (or CMP N202 for CHS)

Introduction to Database Systems

**BALL OF DUTY**

ER Diagram Report

Team Number: 20

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# Problem Description:

As everything has been digitalized and transformed to numbers and statistics which make the complex and unbeneficial data diamonds. This inspired us to get the idea of our project which is like a Fantasy platform. Fantasy is a competition in which participants create their own squads from among the players in a league and score points according to the actual performance of their players.

Ball of Duty will fulfill the passion of most of sports aficionados. As it is capable to be applied in different kinds of sports. which will increase the utilization of this project widely. It is not limited on specified country, region or sport. You can say the sky is the limit.

# User functionalities:

|  |  |
| --- | --- |
| User | Functionality |
| Admin | Enters and manipulates data for:   1. Teams.    1. Adds qualified teams.    2. Removes relegated teams. 2. Players in each team. 3. Real life transfers.    1. Local transfers.    2. Outer-league transfers. 4. Actions. 5. Specifies sport positions. |
| Game Observer | 1. Records the score of each player in the game. 2. Tracks substitutions. |
| Gamer | The passionate fan who will:   1. Pick his squad. 2. Update his squad using in-game transfers. 3. Choosing starters & substitutes. 4. Choosing captain and vice-captain. |

# Entities Description:

|  |  |
| --- | --- |
| Entity | Description |
| Sport Player (Athlete) | Self-explanatory. |
| Position | Role of athlete in the team. |
| Gamer | The passionate fan who plays the game. |
| Team | Athletes chosen by each gamer. |
| Gamers’ League | Group of competing gamers. |
| Gameweek | Set of matches at the same week. |
| Actions | Rules for how points are calculated. |
| Cup match | Knockout round between gamers. |

# Relations Description:

|  |  |  |  |
| --- | --- | --- | --- |
| Entity1 | Relation | Entity2 | Description |
| Athlete | In | Gameweek | Points of each athlete in a particular gameweek. |
| Athlete | At | Position | Position of each athlete in real life. |
| Team | Has Starting | Athlete | Team’s starting line-up. |
| Team | Has Benched | Athlete | Set of benched athletes of the team. |
| Athlete | Captain | Team | Each team has a captain. |
| Athlete | Vice-captain | Team | Each team has a vice-captain. |
| Gameweek | Has dream | Team | Highest scoring athletes in a particular gameweek. |
| Gamer | Has | Team | Squad chosen by each gamer. |
| Cup match | In | Gameweek | List of cup matches in each gameweek. |
| Cup match | Competitors | Gamer | The competing gamers in a certain cup match. |
| Gamer | Participates | Gamer League | List of gamers competing in each league. |
| Action | By | Position | Assigned points for a position due to an action. |







