

# Requirements

- User (player) functionalities:
  - Login
  - Sign up.
  - Show profile (personal information).
  - Update personal information.
  - Show his team.
  - Show details about each player in his team.
  - Can buy and sell and replace player.
  - Will have option that display the next games for his top footballer in his team(or all his team).
- Admin functionalities:
  - Show details about players.
  - Can manipulate (add, delete, update) football players.

➤ Add, delete, edit on players .

- Teams and players:

➤ The class will contain data about each player in the team. The data will be (name, position, age, price).each team should have a name and id .

➤ The class should contain functions:

- Display players
- Update price
- Update the footballer's team.

- Multiple leagues :

➤ The class should contain list of teams (hash table of objects<teams>).

➤ The class should contains functions:

- Display all teams in the league.
- Display a point table for each league.

- Competition Idea:
  - The market:
    - Competition to start as each player to buy footballers, the target is to set up a team to play the next league match with a default “startup” budget of 80K
    - Each player can buy, sell or replace any of the footballers he owns within his budget (Budget to be updated with each process)
    - Player can search for any footballer, giving an output of footballer name, team & league he belongs to, points he has & price.
    - The market:

- The market will contain a screen of the best 11 players and their positions (according to the data ).
- Player can search by the name of the footballer. And the output will be all the information about the footballer. Player can also search by the name of the team and the output will be the 15 player in this team. The player can choose the footballer he want and see his information and decide either buy or replace.

○ The game:

After each match played in a specific league, there will be a function to update footballers points by their performance on the games (goals and assists) . after every increased or decreased there will be update on the footballer price.

- For the player: they will have a point and their name will be on the top ranking player (file that have a top ranking player data). In the end of the season the player number 1 will be displayed.
- Bonus functionalities:
  - Add violation rules:

Violation rules like suspend (red card will suspend one match ,three yellow card will suspend one match).
  - Lucky Wheel :

In the market the player will have one lucky wheel per day or multiple times (by coast)

The wheel will display for the player a random footballer and he can buy it or replace it. The footballer's price will be discounted.

❖ The files:

- File for players.
- File for leagues.
- File for teams and footballers.
- File for top ranked players.
- File for football matches.

All files will open at the first of the program and store in data structures (read functions). And the data will be updated at the end of the program (when sign out) (write functions).

❖ Data structures:

- Hash table for players.
- Queue for the games.