# PROJECT PROPOSAL, E/R DIAGRAM

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# **Project Description**

Soccer Glimpse is a web based application soccer fans can use to view scores, fixtures, information about competitions, teams, players, managers, and stadiums. This system is modeled after popular sports websites such as ESPN Sports. The application's database will be populated using the football-data RESTful API; an open source that serves football (Soccer) data and makes it easy-to-use for free. As a result, the users of Soccer Glimpse will only be able to access information about certain competitions that are available in the football-data API. The system will allow the website administrator to add, modify and delete data from the database. Additionally, the user will be able to search information based on distinct filters as well as to keep up to date with the latest scores and upcoming fixtures.

# **Functions**

### **Administrator Use Cases**

### **UC1- Insert new competition**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the "competition" table and the "insert" option.
- 6. Output: System prompts administrator to enter information in each of the competition table fields.
- 7. Output: System displays "Table will be updated, click yes to continue".
- 8. Input: Administrator clicks on "yes" option.
- 9. Output: The system checks to verify that the entered information does not already exist in the system.
- 10. If the data is not a duplicate the new competition is added to the system and is displayed including the generated ID field.

### **UC2- Insert new team**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the "team" table and the "insert" option.
- 6. Output: System prompts administrator to enter information in each of the team table fields.
- 7. Output: System displays "Table will be updated, click yes to continue".
- 8. Input: Administrator clicks on "yes" option.
- 9. Output: The system checks to verify that the entered information does not already

- exist in the system.
- 10. If the data is not a duplicate the new team is added to the system and is displayed including the generated ID field.

# **UC3-Insert new player**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the "player" table and the "insert" option.
- 6. Output: System prompts administrator to enter information in each of the player table fields.
- 7. Output: System displays "Table will be updated, click yes to continue".
- 8. Input: Administrator clicks on "yes" option.
- 9. Output: The system checks to verify that the entered information does not already exist in the system.
- 10. If the data is not a duplicate the new player is added to the system and is displayed including the generated ID field.

# **UC4- Insert new league Table**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the "leagueTable" table and the "insert" option.
- 6. This option is only available if a new competition has been added to the system.
- 7. Output: System outputs "Please enter the name of competition you would like to create league table for."
- 8. Input: Administrator enters the name of the competition.
- 9. Output: The system verifies that there is not an existing leagueTable for the entered competition.
- 10. Output: System prompts administrator to enter information in each of the leagueTable fields.
- 11. Output: System displays "Table will be updated, click yes to continue".
- 12. Input: Administrator clicks on "yes" option.
- 13. Output: New leagueTable is added to the system and is displayed including the generated ID field.

### **UC5-Insert new fixture**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the "fixture" table and the "insert" option.
- 6. Output: System prompts administrator to enter information in each of the fixture table fields.
- 7. Output: System displays "Table will be updated, click yes to continue".
- 8. Input: Administrator clicks on "yes" option.
- 9. Output: The system checks to verify that the entered information does not already exist in the system.
- 10. If the data is not a duplicate the new fixture is added to the system and is displayed including the generated ID field.

### **UC6- Insert new stadium**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the "stadium" table and the "insert" option.
- 6. Output: System prompts administrator to enter information in each of the stadium table fields.
- 7. Output: System displays "Table will be updated, click yes to continue".
- 8. Input: Administrator clicks on "yes" option.
- 9. Output: The system checks to verify that the entered information does not already exist in the system.
- 10. Output: If the data is not a duplicate the new stadium is added to the system and is displayed including the generated ID field.

# **UC7- Insert new manager**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the "manager" table and the "insert" option.
- 6. Output: System prompts administrator to enter information in each of the manager table fields.
- 7. Output: System displays "Table will be updated, click yes to continue".
- 8. Input: Administrator clicks on "yes" option.
- 9. Output: The system checks to verify that the entered information does not already exist in the system.
- 10. Output: If the data is not a duplicate the new manager is added to the system and is displayed including the generated ID field.

### **UC8- Modify competition**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the competition table and the "modify" option.
- 6. Output: System displays selected table and a search field.
- 7. Input: The administrator may search for the record to be modified by name or ID number or select it from the table.
- 8. Output: The record is displayed and the fields become editable.
- 9. Input: The user modifies the desired fields of the record.
- 10. Output: System displays "Table will be updated, click yes to continue".
- 11. Input: Administrator clicks on "yes" option.
- 12. Output: The system verifies that the modification does not make the record a duplicate.
- 13. Output: If the data is not a duplicate the record is updated in the system and is displayed.

# **UC9- Modify team**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the team table and the "modify" option.
- 6. Output: System displays selected table and a search field.
- 7. Input: The administrator may search for the record to be modified by name or ID number or select it from the table.
- 8. Output: The record is displayed and the fields become editable.
- 9. Input: The user modifies the desired fields of the record.
- 10. Output: System displays "Table will be updated, click yes to continue".
- 11. Input: Administrator clicks on "yes" option.
- 12. Output: The system verifies that the modification does not make the record a duplicate.
- 13. Output: If the data is not a duplicate the record is updated in the system and is displayed.

### **UC10- Modify player**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the player table and the "modify" option.
- 6. Output: System displays selected table and a search field.
- 7. Input: The administrator may search for the record to be modified by name or ID number or select it from the table.
- 8. Output: The record is displayed and the fields become editable.
- 9. Input: The user modifies the desired fields of the record.
- 10. Output: System displays "Table will be updated, click yes to continue".
- 11. Input: Administrator clicks on "yes" option.
- 12. Output: The system verifies that the modification does not make the record a duplicate.
- 13. Output: If the data is not a duplicate the record is updated in the system and is displayed.

# **UC11- Modify leagueTable**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the league Table table and the "modify" option.
- 6. Output: System displays selected table and a search field.
- 7. Input: The administrator may search for the record to be modified by name or ID number or select it from the table.
- 8. Output: The record is displayed and the fields become editable.
- 9. Input: The user modifies the desired fields of the record.
- 10. Output: System displays "Table will be updated, click yes to continue".
- 11. Input: Administrator clicks on "yes" option.
- 12. Output: The system verifies that the modification does not make the record a duplicate.
- 13. Output: If the data is not a duplicate the record is updated in the system and is displayed.

### **UC12- Modify fixture**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the fixture table and the "modify" option.
- 6. Output: System displays selected table and a search field.
- 7. Input: The administrator may search for the record to be modified by name or ID number or select it from the table.
- 8. Output: The record is displayed and the fields become editable.
- 9. Input: The user modifies the desired fields of the record.
- 10. Output: System displays "Table will be updated, click yes to continue".
- 11. Input: Administrator clicks on "yes" option.
- 12. Output: The system verifies that the modification does not make the record a duplicate.
- 13. Output: If the data is not a duplicate the record is updated in the system and is displayed.

### **UC13- Modify stadium**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the stadium table and the "modify" option.
- 6. Output: System displays selected table and a search field.
- 7. Input: The administrator may search for the record to be modified by name or ID number or select it from the table.
- 8. Output: The record is displayed and the fields become editable.
- 9. Input: The user modifies the desired fields of the record.
- 10. Output: System displays "Table will be updated, click yes to continue".
- 11. Input: Administrator clicks on "yes" option.
- 12. Output: The system verifies that the modification does not make the record a duplicate.
- 13. Output: If the data is not a duplicate the record is updated in the system and is displayed.

### **UC14- Modify manager**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the manager table and the "modify" option.
- 6. Output: System displays selected table and a search field.
- 7. Input: The administrator may search for the record to be modified by name or ID number or select it from the table.
- 8. Output: The record is displayed and the fields become editable.
- 9. Input: The user modifies the desired fields of the record.
- 10. Output: System displays "Table will be updated, click yes to continue".
- 11. Input: Administrator clicks on "yes" option.
- 12. Output: The system verifies that the modification does not make the record a duplicate.
- 13. Output: If the data is not a duplicate the record is updated in the system and is displayed.

### **UC15- Delete competition**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the name of the competition table and the "delete" option.
- 6. Output: System displays the competition table and a search field.
- 7. Input: The administrator may search for the record to be deleted by name or ID number or select it from the table.
- 8. Input: The user clicks on "delete" button.
- 9. Output: System displays "Table will be updated, click yes to continue".
- 10. Input: Administrator clicks on "yes" option.
- 11. Output: Record is deleted from the system and the updated table is displayed.

### **UC16- Delete team**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the team and the "delete" option.
- 6. Output: System displays the team table and a search field.
- 7. Input: The administrator may search for the record to be deleted by name or ID number or select it from the table.
- 8. Input: The user clicks on "delete" button.

- 9. Output: System displays "Table will be updated, click yes to continue".
- 10. Input: Administrator clicks on "yes" option.
- 11. Output: Record is deleted from the system and the updated table is displayed.

# **UC17- Delete player**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the player table and the "delete" option.
- 6. Output: System displays player table and a search field.
- 7. Input: The administrator may search for the record to be deleted by name or ID number or select it from the table.
- 8. Input: The user clicks on "delete" button.
- 9. Output: System displays "Table will be updated, click yes to continue".
- 10. Input: Administrator clicks on "yes" option.
- 11. Output: Record is deleted from the system and the updated table is displayed.

# **UC18- Delete leagueTable**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the name of the leagueTable table and the "delete" option.
- 6. Output: System displays the leagueTable table and a search field.
- 7. Input: The administrator may search for the record to be deleted by name or ID number or select it from the table.
- 8. Input: The user clicks on "delete" button.
- 9. Output: System displays "Table will be updated, click yes to continue".
- 10. Input: Administrator clicks on "yes" option.
- 11. Output: Record is deleted from the system and the updated table is displayed.

# UC19- Delete fixture

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the name of the fixture table and the "delete" option.
- 6. Output: System displays fixture table and a search field.
- 7. Input: The administrator may search for the record to be deleted by name or ID number or select it from the table.
- 8. Input: The user clicks on "delete" button.
- 9. Output: System displays "Table will be updated, click yes to continue".
- 10. Input: Administrator clicks on "yes" option.

11. Output: Record is deleted from the system and the updated table is displayed.

### **UC20- Delete stadium**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the stadium table and the "delete" option.
- 6. Output: System displays stadium table and a search field.
- 7. Input: The administrator may search for the record to be deleted by name or ID number or select it from the table.
- 8. Input: The user clicks on "delete" button.
- 9. Output: System displays "Table will be updated, click yes to continue".
- 10. Input: Administrator clicks on "yes" option.
- 11. Output: Record is deleted from the system and the updated table is displayed.

# **UC21- Delete manager**

- 1. Input: The administrator logs in the system.
- 2. Output: The menu options are displayed.
- 3. Input: Administrator selects "update data"
- 4. Output: The system displays base table names and "insert", "delete", "modify" options.
- 5. Input: Administrator selects the manager table and the "delete" option.
- 6. Output: System displays manager table and a search field.
- 7. Input: The administrator may search for the record to be deleted by name or ID number or select it from the table.
- 8. Input: The user clicks on "delete" button.
- 9. Output: System displays "Table will be updated, click yes to continue".
- 10. Input: Administrator clicks on "yes" option.
- 11. Output: Record is deleted from the system and the updated table is displayed.

### UC22- Create new administrator account

- 1. Input: The administrator inputs their credentials and clicks "sign in" button
- **2.** Output: The system verifies the administrator is registered and the password is correct
- 3. Output: The administrator's homepage appears
- 4. Input: Administrator clicks on "create user account" option
- 5. Output: The system directs the administrator to "create user account" screen
- 6. Input: The administrator fills in the required text fields such as username and temporary password.
- 7. Input: The administrator selects the "make admin" option.
- 8. Output: The system displays "are you sure you want to make this account an administrator?"
- 9. Input: The administrator selects "yes".
- 10. Output: The system creates an account for the new user and sends an email with the temporary password to the new user.

### UC23- Delete an administrator account

- 1. Input: The administrator logs in the system
- 2. Output: The administrator's homepage appears
- 3. Input: The administrator clicks on "manage users" option
- 4. Input: Administrator clicks on "search account"
- 5. Output: The system directs the administrator to a search screen
- 6. Input: The administrator inputs account information on the search box and clicks on the "search" button
- 7. Output: If the account exists, the system displays account information along with options
- 8. Input: The administrator clicks on the "delete user" option
- 9. Output: The system displays "Are you sure you want to delete this user account?"
- 10. Input: The administrator clicks "yes"
- 11. Output: The account is deleted from the database

### **Customer Use Cases**

# **UC1- Search for competition**

- 1. Input: User accesses the system.
- 2. Output: The homepage is displayed along with the menu tabs.
- 3. Input: The user clicks on the search box and types in the desired competition name.
- 4. Output: If the competition exists in the system, then the options for the competition are displayed.
- 5. Input: The user selects the menu option of what they want to view about the competition. (eg. Fixtures)
- 6. Output: The system displays the requested information.

### **UC2-Search for team**

- 1. Input: User accesses the system.
- 2. Output: The homepage is displayed along with the menu tabs.
- 3. Input: The user clicks on the search box and types in the desired team name.
- 4. Output: If the team exists in the system, then the options for the team are displayed.
- 5. Input: The user selects the menu option of what they want to view about the completion. (eg. players)
- 6. Output: The system displays the requested information.

# **UC3- Search for player**

- 1. Input: User accesses the system.
- 2. Output: The homepage is displayed along with the menu tabs.
- 3. Input: The user clicks on the search box and types in the desired player name.
- 4. Output: If the player exists in the system, then the options for the player's team are displayed along with a tab for player info.
- 5. Input: The user selects the menu option of what they want to view about the player. (eg. General Info)

6. Output: The system displays the requested information.

### UC6- Search for stadium

- 1. Input: User accesses the system.
- 2. Output: The homepage is displayed along with the menu tabs.
- 3. Input: The user clicks on the search box and types in the desired stadium name.
- 4. Output: If the stadium exists in the system, then the general information about the stadium is displayed

# **UC7- Search for manager**

- 1. Input: User accesses the system.
- 2. Output: The homepage is displayed along with the menu tabs.
- 3. Input: The user clicks on the search box and types in the desired manager name.
- 4. Output: If the player exists in the system, then the options for the manager's team are displayed along with a tab for manager info.
- 5. Input: The user selects the menu option of what they want to view about the manager. (eg. General Info)
- 6. Output: The system displays the requested information.

# UC8- View standings of a competition

- 1. Input: User accesses the system.
- 2. Output: The homepage is displayed along with the menu tabs.
- 3. Input: User selects the "competition" tab.
- **4.** Output: System shows the league table for the competition, which contains the rank of each team.

# UC9- View teams in a competition

- 1. Input: User accesses the system.
- 2. Output: The homepage is displayed along with the menu tabs.
- 3. Input: User searches or selects competition from menu.
- 4. Output: Competitions are displayed.
- 5. Input: The user selects the desired competition and the "teams" option.
- 6. Output: The system displays the list of teams participating in the competition.

### UC10 -View basic stats of a team

- 1. Input: User accesses the system.
- 2. Output: The homepage is displayed along with the menu tabs.
- 3. Input: User searches or selects team from menu.
- 4. Output: The menu options or the team are displayed.
- 5. Input: The user selects the "basic stats" option.
- 6. Output: The system displays, the most home and away goals the team has scored in the season, the name of the most expensive player, number or wins, losses, draws and the results of the last game.

# **UC11- View fixtures by competition**

- 1. Input: User accesses the system.
- 2. Output: The homepage is displayed along with the menu tabs.
- 3. Input: User searches or selects competition from menu.
- 4. Output: The menu options or the team are displayed.

- 5. Input: The user selects the "fixtures & scores" option.
- 6. Output: The system displays the upcoming matches for the competition.

# **UC12-View Scores across competitions**

- 1. Input: User accesses the system.
- 2. Output: The homepage is displayed along with the menu tabs.
- 3. Input: User selects the "scores" tab.
- 4. Output: Shows the most recent scores for the teams of each competition.

### UC13- View fixtures of a team

- 1. Input: User accesses the system.
- 2. Output: The homepage is displayed along with the menu tabs.
- 3. Input: User searches or selects team from menu.
- 4. Output: The menu options or the team are displayed.
- 5. Input: The user selects the "fixtures" option.
- 6. Output: The system displays, the schedules of the team, match time, place, and scores, stadium information.

### UC14- View scores of a team

- 1. Input: User accesses the system.
- 2. Output: The homepage is displayed along with the menu tabs.
- 3. Input: User searches or selects team from menu.
- 4. Output: The menu options for the team are displayed.
- 5. Input: User selects the "Scores & Fixtures" option.
- 6. Output: The list of results from past fixtures is displayed.

# UC15- View players of a team

- 1. Input: User accesses the system.
- 2. Output: The homepage is displayed along with the menu tabs.
- 3. Input: User searches or selects team from menu.
- 4. Output: The menu options for the team are displayed.
- 5. Input: User selects the "squad" option.
- 6. Output: The list of players belonging to the team is displayed.

# **Entity Relationship Diagram**

