

# UNIVERSITY OF INFORMATION & TECHNOLOGY

## FACULTY OF COMPUTER SCIENCE



## DETAILED DESIGN DOCUMENT

**Topic: National Football League Management**

**Class code: SE104.N24.CLC**

**Instructor: Ths. Nguyễn Thị Thanh Trúc**

**Implementation team: Team 13**

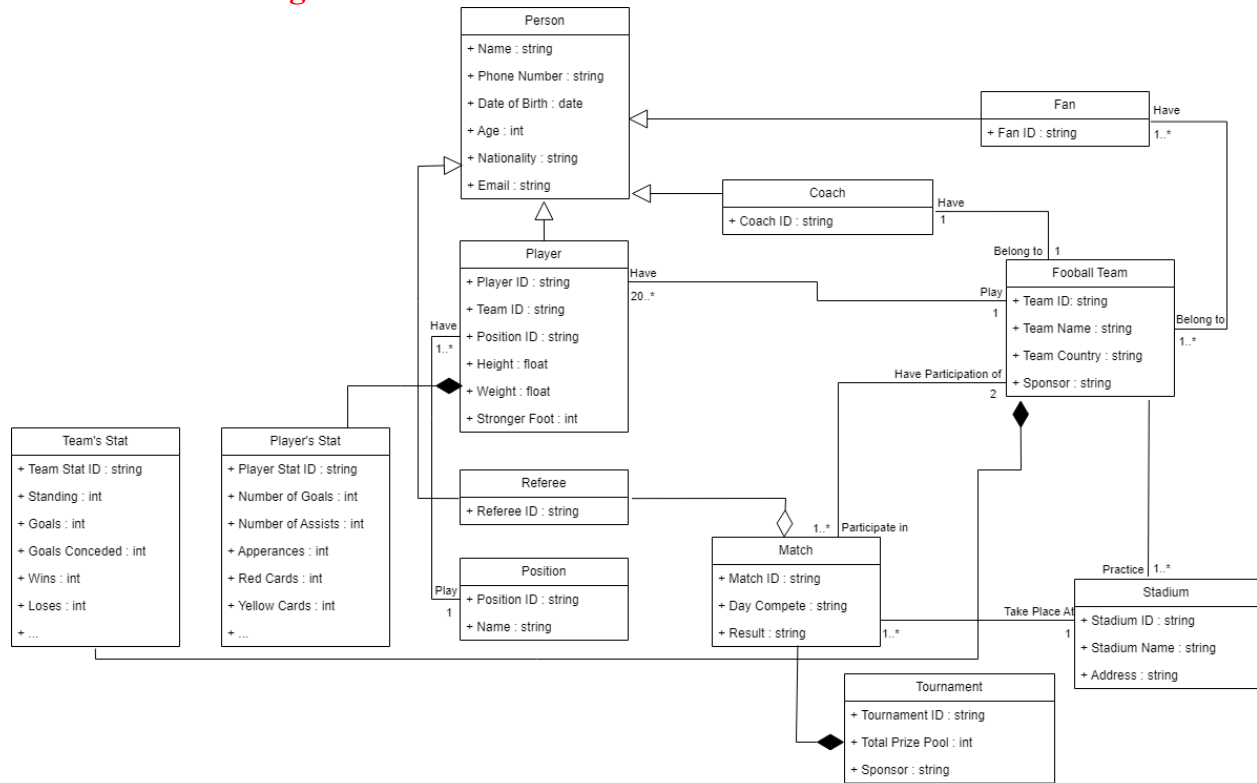
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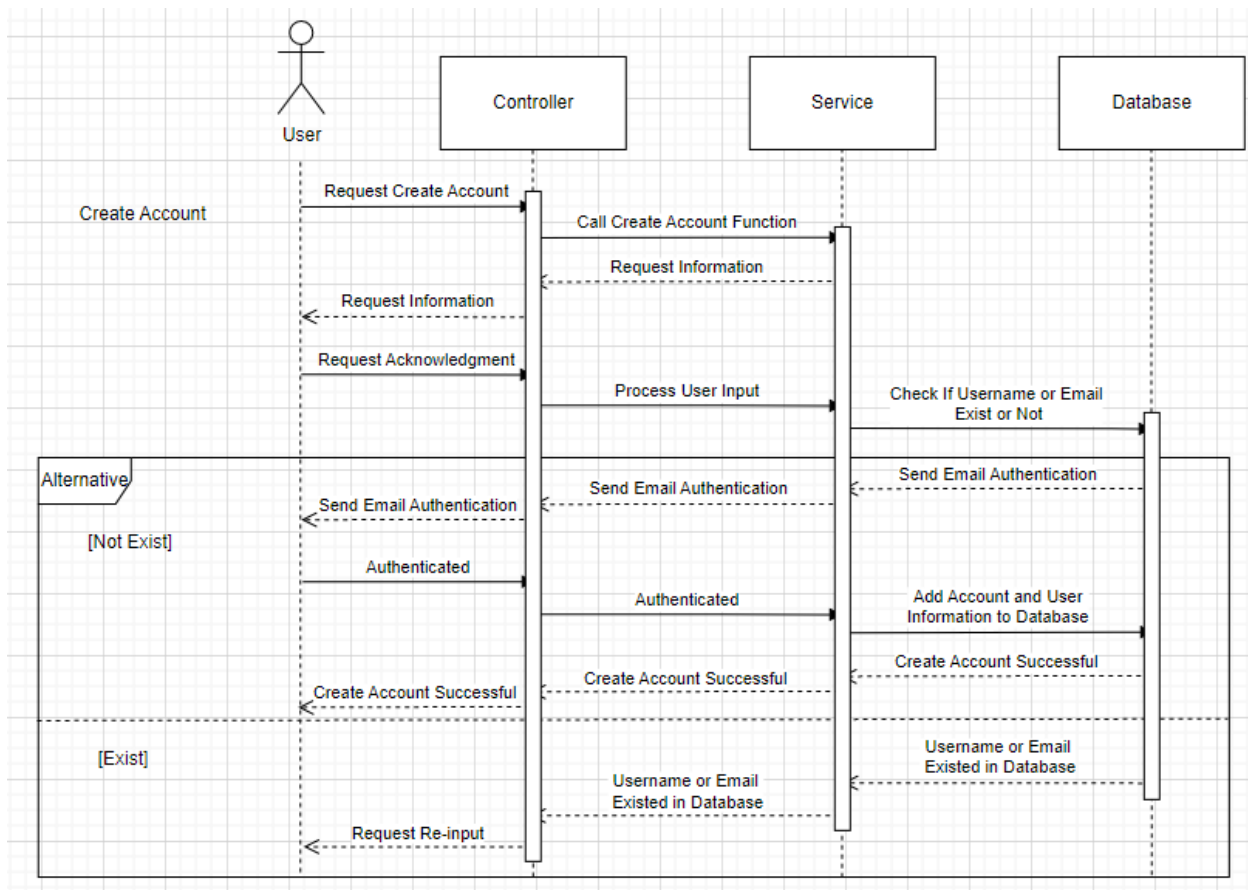
# 1. National Football League Management

## 1.1. Class diagram

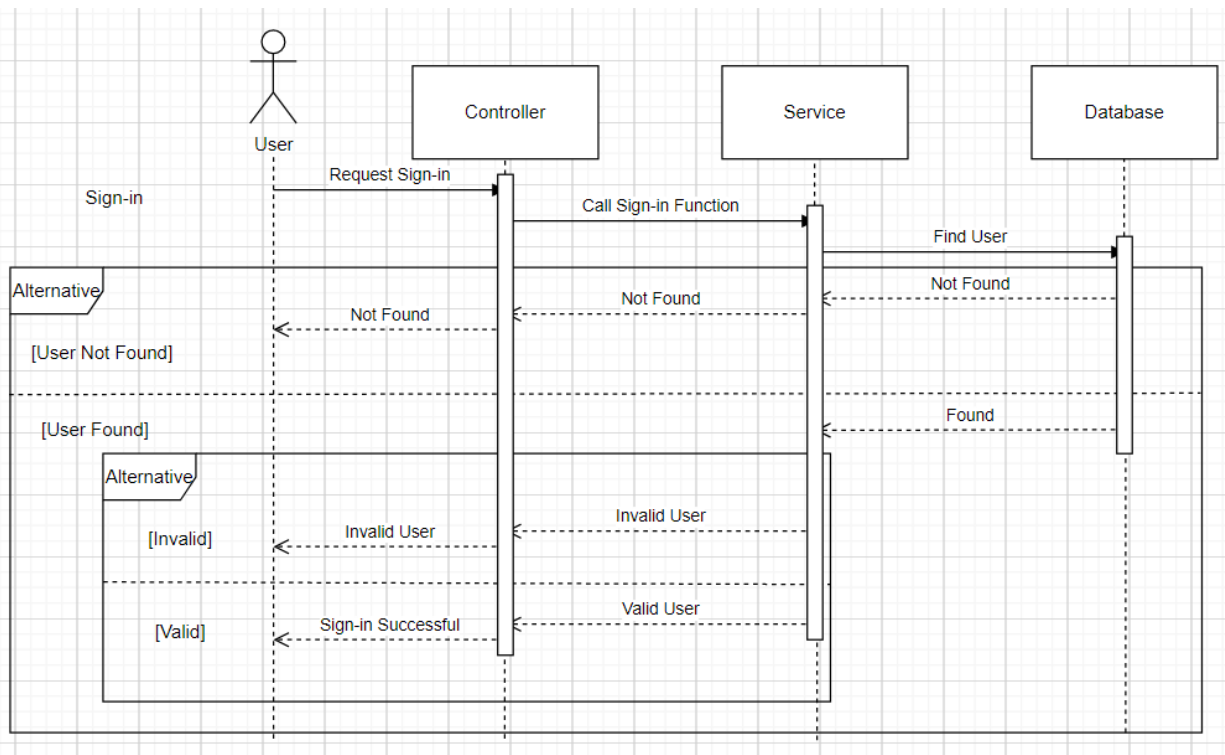


## 1.2. Sequence diagram

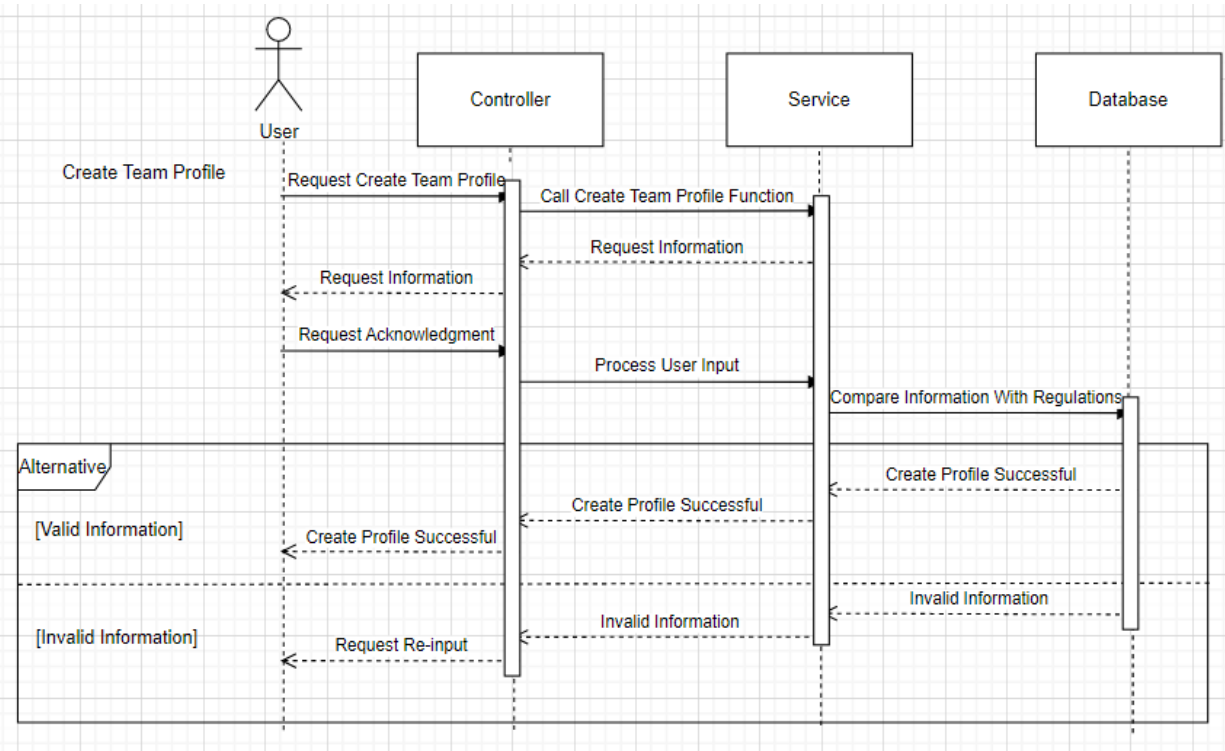
### 1.2.1. Tạo tài khoản



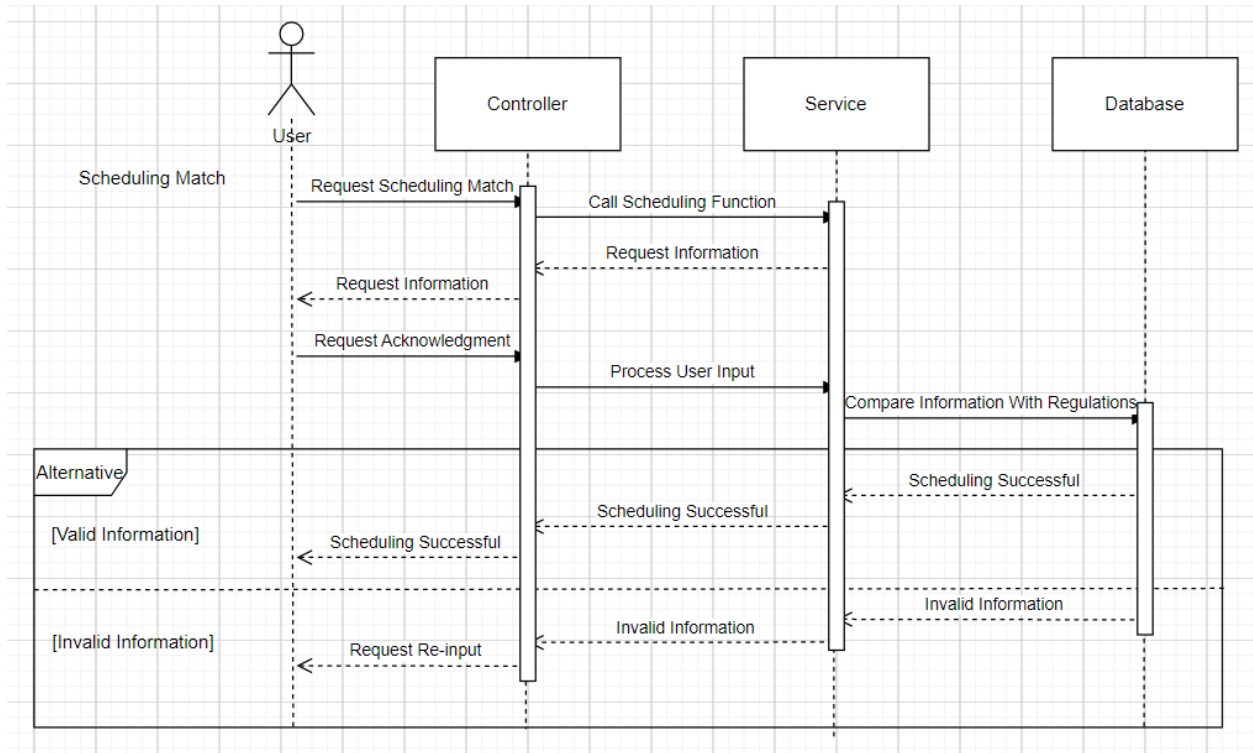
### 1.2.2. Đăng nhập



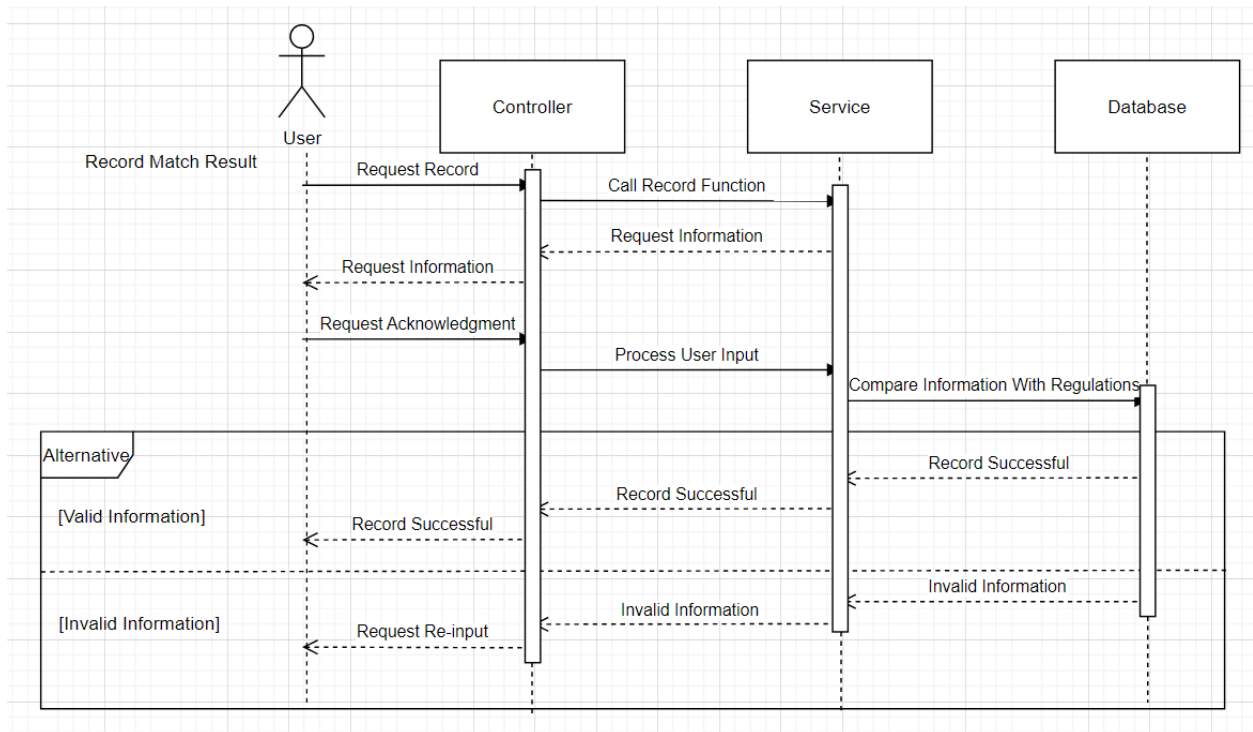
### 1.2.3. Đăng ký hồ sơ



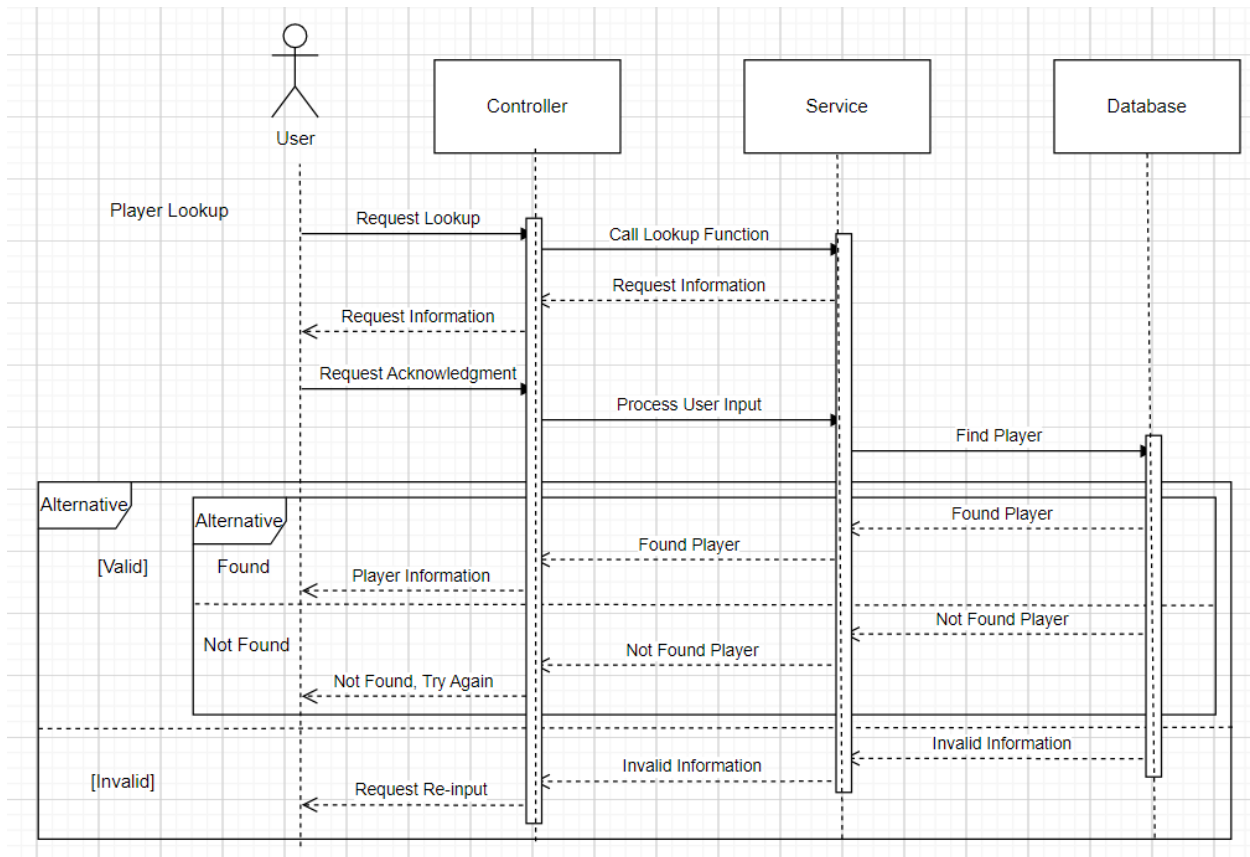
### 1.2.4. Lập lịch thi đấu



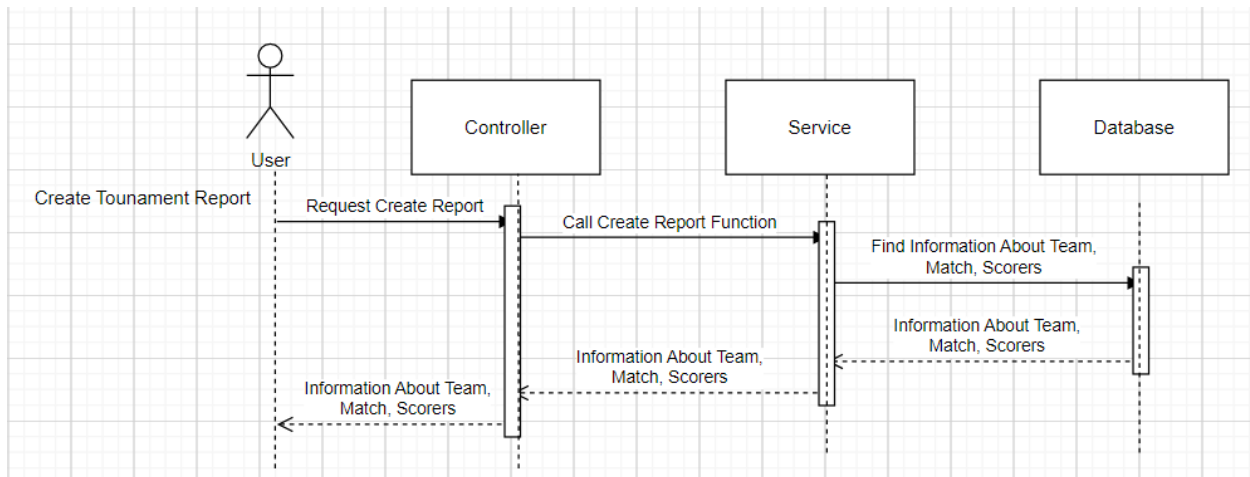
### 1.2.5. Ghi nhận kết quả trận đấu



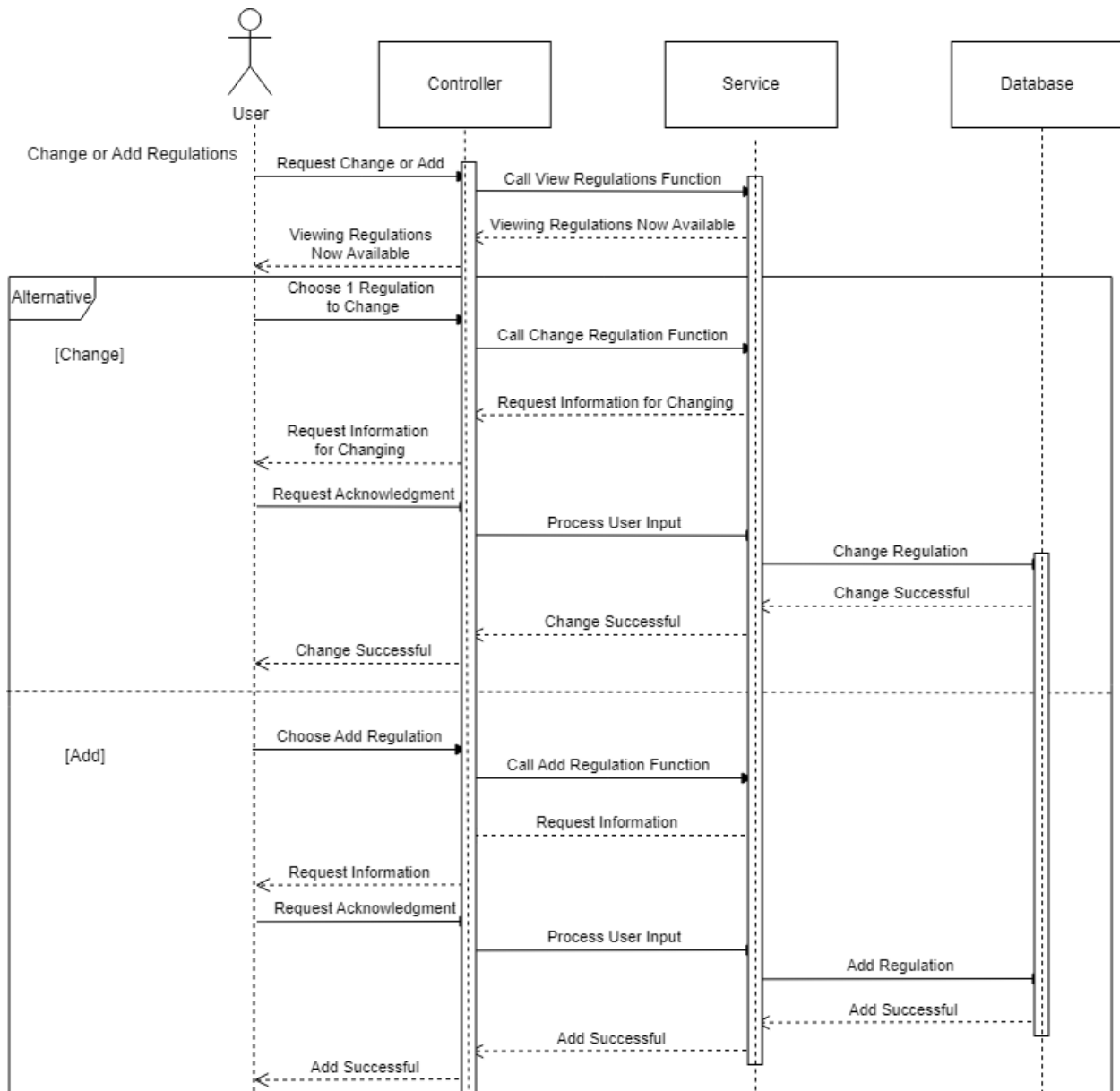
### 1.2.6. Tra cứu cầu thủ



### 1.2.7. Lập báo cáo giải



### 1.2.8. Thay đổi hoặc thêm mới qui định






## 1.3. Screen

### 1.3.1. Create Account Screen


#### 1.3.1.1. Main flow


<b>Screen</b>	Create Account
<b>Description</b>	Create account
<b>Screen Access</b>	Users click on sign up button

#### 1.3.1.2. User Interface



English(UK) ▼


 Sign up with Google

 Sign up with Facebook

-OR-

**Username**

**Email Address**

**Password**  

**Create Account**

Already have an account? [Log in](#)

#### 1.3.1.3. Validation Rule/Data mapping

Field	Type	Description
Username	Label	<ul style="list-style-type: none"><li>Username</li><li>Insert to field in DB: NFLM_USER. USERNAME</li></ul>
Password	Label	<ul style="list-style-type: none"><li>Password</li><li>Insert to field in DB: NFLM_USER. PASSWORD</li></ul>
Email	Label	<ul style="list-style-type: none"><li>Email</li><li>Insert to field in DB: NFLM_USER. EMAIL</li></ul>
Sign up with Google	Button	<ul style="list-style-type: none"><li>Create account with Google email &amp; username</li></ul>

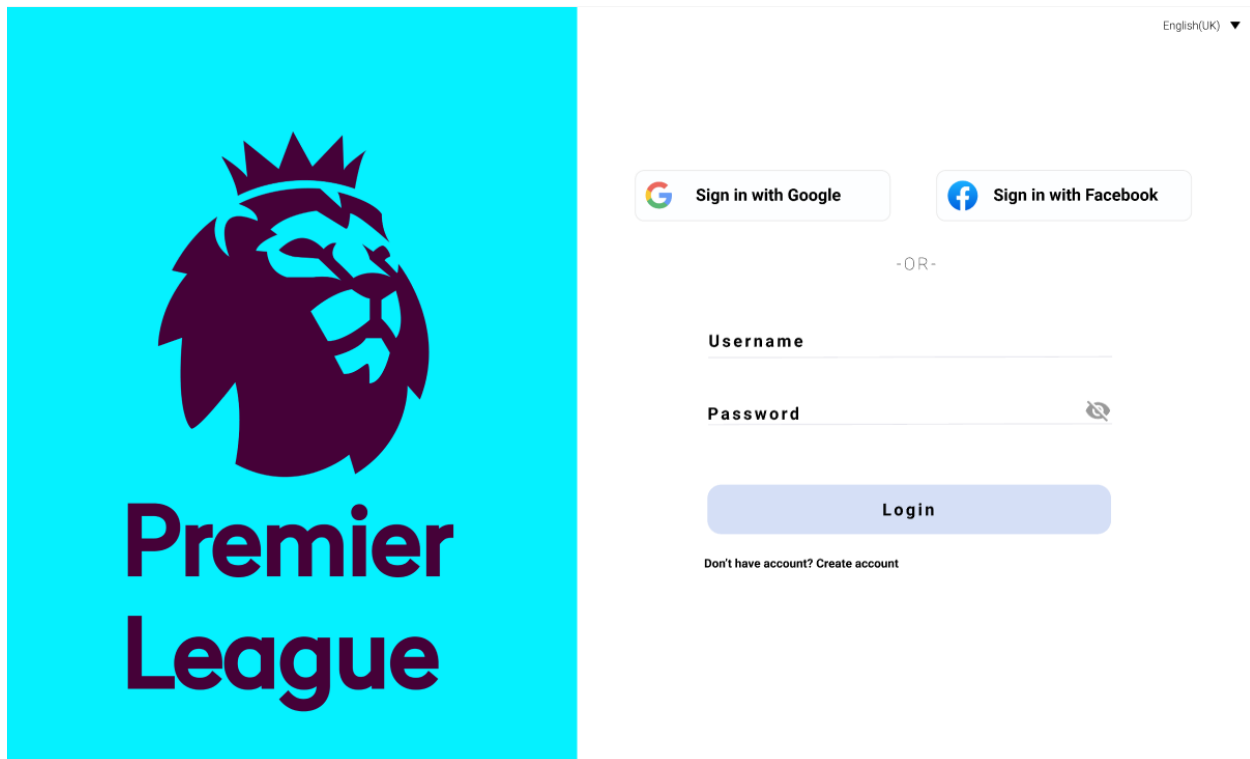
Sign up with Facebook	Button	<ul style="list-style-type: none"> <li>• Create account with Facebook email &amp; username</li> </ul>
Create Account	Button	<ul style="list-style-type: none"> <li>• Request acknowledgment to system to record</li> </ul>
Login	Link	<ul style="list-style-type: none"> <li>• Link to login page</li> </ul>

### 1.3.2. Sign-in Screen

#### 1.3.2.1. Main flow

<b>Screen</b>	Sign-in
<b>Description</b>	Sign-in
<b>Screen Access</b>	Users click on login button

#### 1.3.2.2. User Interface



#### 1.3.2.3. Validation Rule/Data mapping

Field	Type	Description
Username	Label	<ul style="list-style-type: none"> <li>• Username</li> <li>• Mapping to field in DB: NFLM_USER. USERNAME</li> </ul>
Password	Label	<ul style="list-style-type: none"> <li>• Password</li> <li>• Mapping to field in DB: NFLM_USER. PASSWORD</li> </ul>
Email	Label	<ul style="list-style-type: none"> <li>• Email</li> </ul>

Sign up with Google	Button	• Log in with Google email & username
Sign up with Facebook	Button	• Log in with Facebook email & username
Login	Button	• Request acknowledgment to system to sign in
Create Account	Link	• Link to create account page

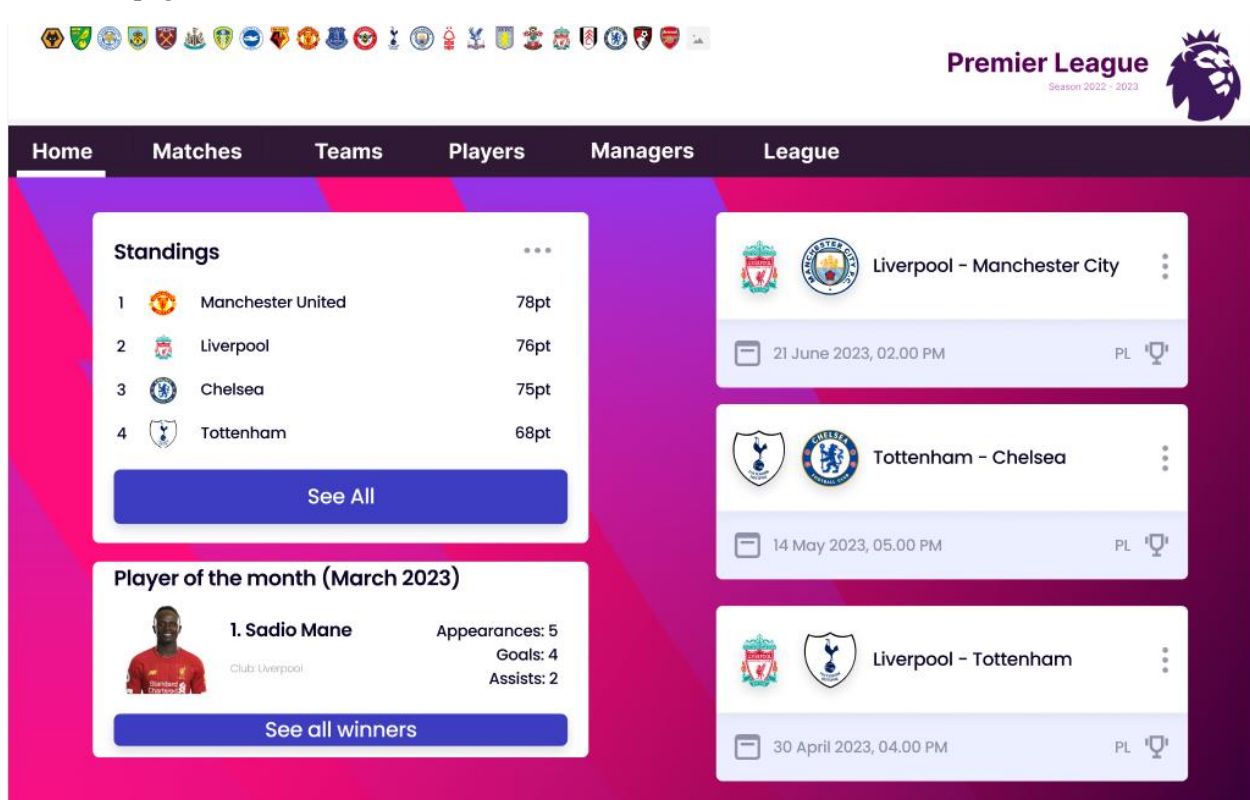
### 1.3.3. Homepage Screen

#### 1.3.3.1. Main flow






















<b>Screen</b>	Home page
<b>Description</b>	Home page
<b>Screen Access</b>	Users sign in or click to home button

#### 1.3.3.2. User Interface

Home page section



Standings table section

 Premier League Season 2022 - 2023									
Club	MP	W	D	L	GF	GA	GD	Pts	
1  Arsenal	0	0	0	0	0	0	0	0	
2  Manchester City	0	0	0	0	0	0	0	0	
3  Manchester United	0	0	0	0	0	0	0	0	
4  Newcastle United	0	0	0	0	0	0	0	0	
5  Tottenham Hotspur	0	0	0	0	0	0	0	0	
6  Aston Villa	0	0	0	0	0	0	0	0	
7  Brighton & Hove Albion	0	0	0	0	0	0	0	0	
8  Liverpool	0	0	0	0	0	0	0	0	
9  Brentford	0	0	0	0	0	0	0	0	
10  Fulham	0	0	0	0	0	0	0	0	
11  Chelsea	0	0	0	0	0	0	0	0	
12  Crystal Palace	0	0	0	0	0	0	0	0	
13  Wolverhampton Wanderers	0	0	0	0	0	0	0	0	
14  Bournemouth	0	0	0	0	0	0	0	0	
15  West Ham United	0	0	0	0	0	0	0	0	
16  Leeds United	0	0	0	0	0	0	0	0	
17  Everton	0	0	0	0	0	0	0	0	
18  Nottingham Forest	0	0	0	0	0	0	0	0	
19  Leicester City	0	0	0	0	0	0	0	0	
20  Southampton	0	0	0	0	0	0	0	0	

#### 1.3.3.3. Validation Rule/Data mapping

Field	Type	Description
Standings	Dropdow	• Standings

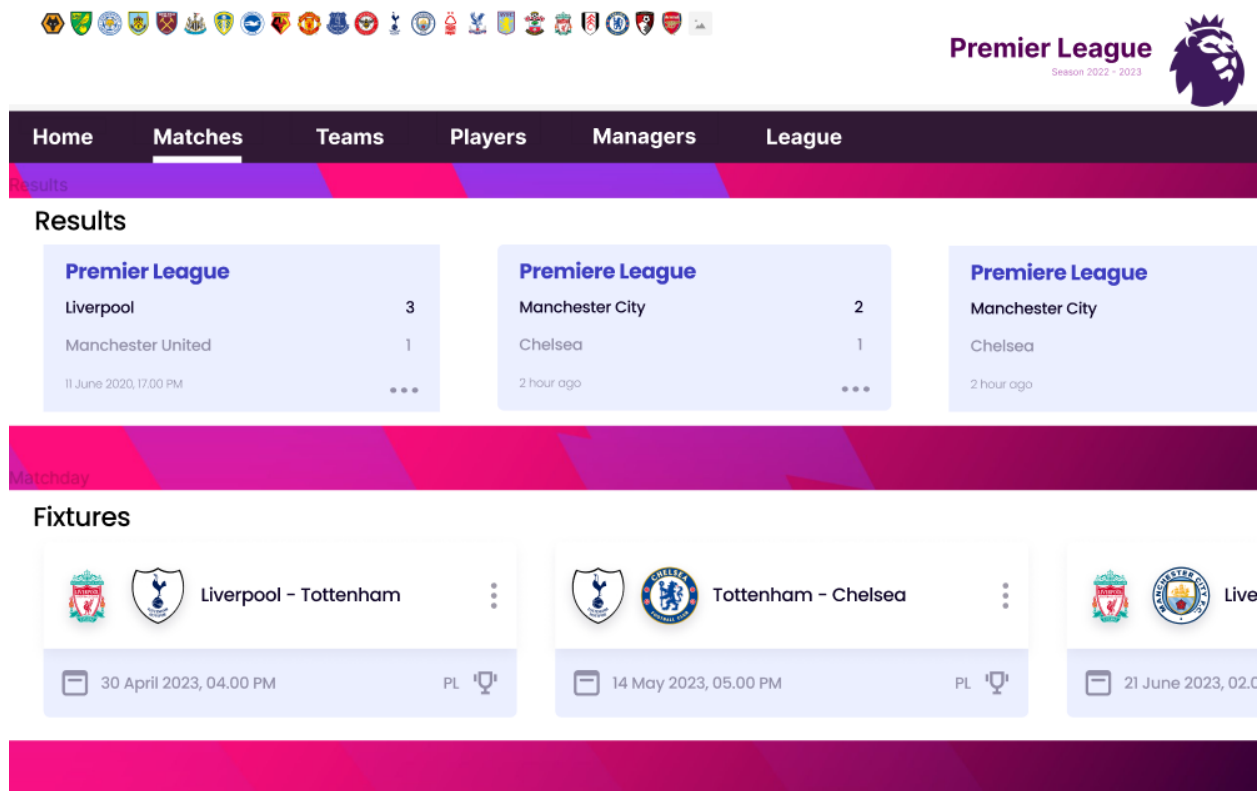
	n list	<ul style="list-style-type: none"> <li>• Display top 4 team's standing</li> <li>• Mapping to field in DB: NFLM_TEAM'S STAT. STANDING</li> </ul>
Player of the month	Dropdown list	<ul style="list-style-type: none"> <li>• Player of the month</li> <li>• Display top 1 player</li> <li>• Mapping to field in DB: NFLM_PLAYER'S STAT. STANDING NFLM_PLAYER'S STAT. NoG NFLM_PLAYER'S STAT. NoA NFLM_PLAYER. NAME</li> </ul>
See all winners	Button	<ul style="list-style-type: none"> <li>• List all data about player of the month</li> </ul>
See all	Button	<ul style="list-style-type: none"> <li>• List all data about team's standing</li> </ul>
Home	Button	<ul style="list-style-type: none"> <li>• Link to home page</li> </ul>
Matches	Button	<ul style="list-style-type: none"> <li>• Link to matches page</li> </ul>
Teams	Button	<ul style="list-style-type: none"> <li>• Link to teams page</li> </ul>
Players	Button	<ul style="list-style-type: none"> <li>• Link to players page</li> </ul>
Managers	Button	<ul style="list-style-type: none"> <li>• Link to managers page</li> </ul>
League	Button	<ul style="list-style-type: none"> <li>• Link to league page</li> </ul>

#### 1.3.4. Matches Screen

##### 1.3.4.1. Main flow

<b>Screen</b>	Matches
<b>Description</b>	Matches
<b>Screen Access</b>	Users click on matches button

##### 1.3.4.2. User Interface



#### 1.3.4.3. Validation Rule/Data mapping

Field	Type	Description
Results	Dropdown list	<ul style="list-style-type: none"> <li>Results</li> <li>Display matches result</li> <li>Mapping to field in DB: NFLM_MATCH.RESULT</li> </ul>
Fixtures	Dropdown list	<ul style="list-style-type: none"> <li>Match schedules</li> <li>Display matches schedules</li> </ul>
Home	Button	<ul style="list-style-type: none"> <li>Link to home page</li> </ul>
Matches	Button	<ul style="list-style-type: none"> <li>Link to matches page</li> </ul>
Teams	Button	<ul style="list-style-type: none"> <li>Link to teams page</li> </ul>
Players	Button	<ul style="list-style-type: none"> <li>Link to players page</li> </ul>
Managers	Button	<ul style="list-style-type: none"> <li>Link to managers page</li> </ul>
League	Button	<ul style="list-style-type: none"> <li>Link to league page</li> </ul>

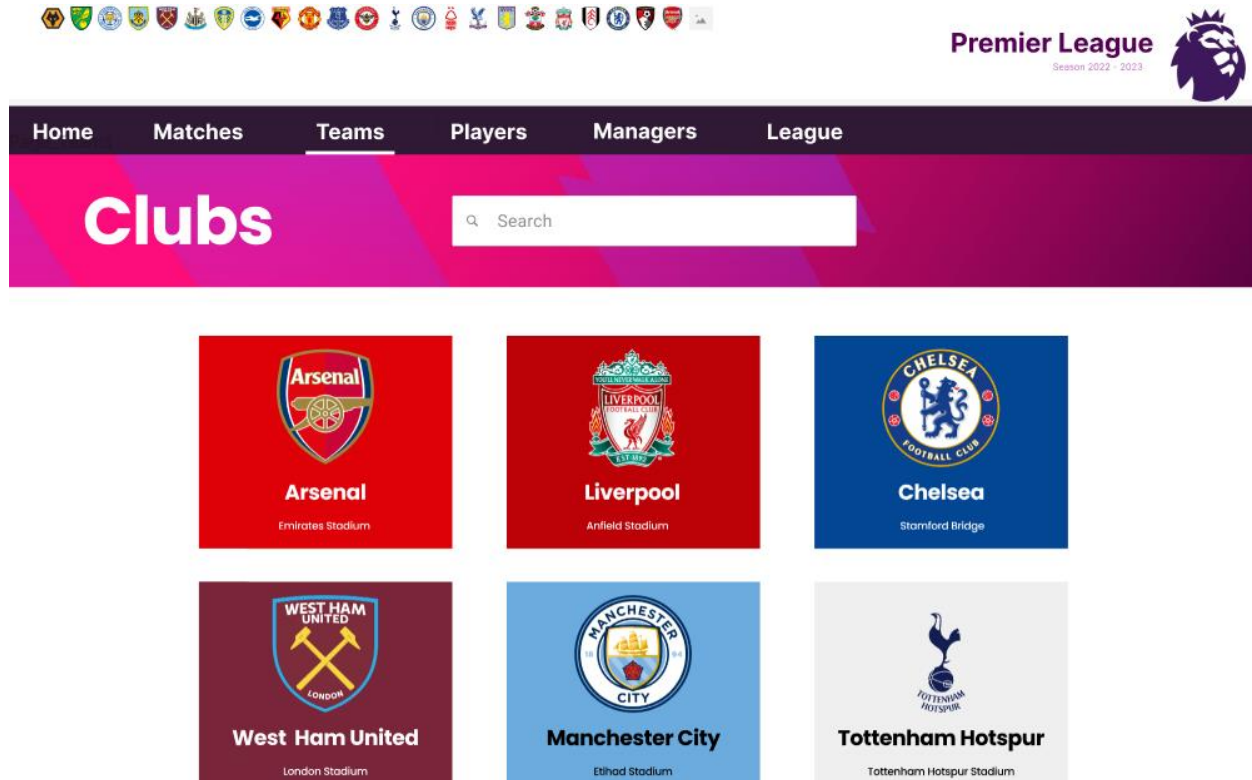
#### 1.3.5. Teams Screen

##### 1.3.5.1. Main flow

Screen	Teams
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<b>Description</b>	Teams
<b>Screen Access</b>	Users click on teams button

### 1.3.5.2. User Interface



### 1.3.5.3. Validation Rule/Data mapping

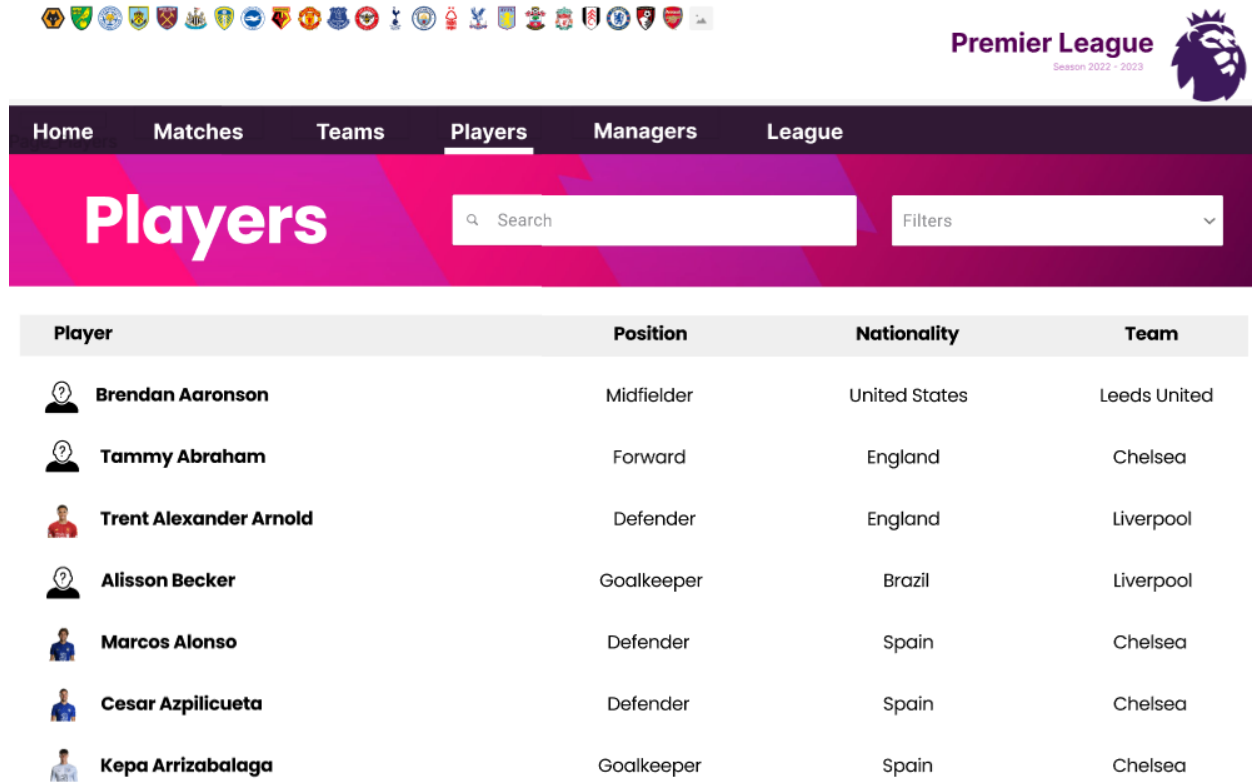
Field	Type	Description
Clubs	Dropdown list	<ul style="list-style-type: none"> <li>Teams</li> <li>Display all teams</li> <li>Mapping to field in DB: NFLM_TEAM</li> </ul>
Home	Button	<ul style="list-style-type: none"> <li>Link to home page</li> </ul>
Matches	Button	<ul style="list-style-type: none"> <li>Link to matches page</li> </ul>
Teams	Button	<ul style="list-style-type: none"> <li>Link to teams page</li> </ul>
Players	Button	<ul style="list-style-type: none"> <li>Link to players page</li> </ul>
Managers	Button	<ul style="list-style-type: none"> <li>Link to managers page</li> </ul>
League	Button	<ul style="list-style-type: none"> <li>Link to league page</li> </ul>

### 1.3.6. Players Screen








#### 1.3.6.1. Main flow

Screen	Players
Description	Players
Screen Access	Users click on players button

#### 1.3.6.2. User Interface



The screenshot shows the Premier League website's 'Players' page. The navigation bar includes links to Home, Matches, Teams, Players (active), Managers, and League. The main header area has a large 'Players' title, a search bar, and a filters dropdown. The player list table is as follows:

Player	Position	Nationality	Team
 <b>Brendan Aaronson</b>	Midfielder	United States	Leeds United
 <b>Tammy Abraham</b>	Forward	England	Chelsea
 <b>Trent Alexander Arnold</b>	Defender	England	Liverpool
 <b>Alisson Becker</b>	Goalkeeper	Brazil	Liverpool
 <b>Marcos Alonso</b>	Defender	Spain	Chelsea
 <b>Cesar Azpilicueta</b>	Defender	Spain	Chelsea
 <b>Kepa Arrizabalaga</b>	Goalkeeper	Spain	Chelsea

#### 1.3.6.3. Validation Rule/Data mapping

Field	Type	Description
Players	Dropdown list	<ul style="list-style-type: none"> <li>• Players</li> <li>• Display all players</li> <li>• Mapping to field in DB: NFLM_PLAYER</li> </ul>
Home	Button	<ul style="list-style-type: none"> <li>• Link to home page</li> </ul>
Matches	Button	<ul style="list-style-type: none"> <li>• Link to matches page</li> </ul>
Teams	Button	<ul style="list-style-type: none"> <li>• Link to teams page</li> </ul>
Players	Button	<ul style="list-style-type: none"> <li>• Link to players page</li> </ul>
Managers	Button	<ul style="list-style-type: none"> <li>• Link to managers page</li> </ul>
League	Button	<ul style="list-style-type: none"> <li>• Link to league page</li> </ul>

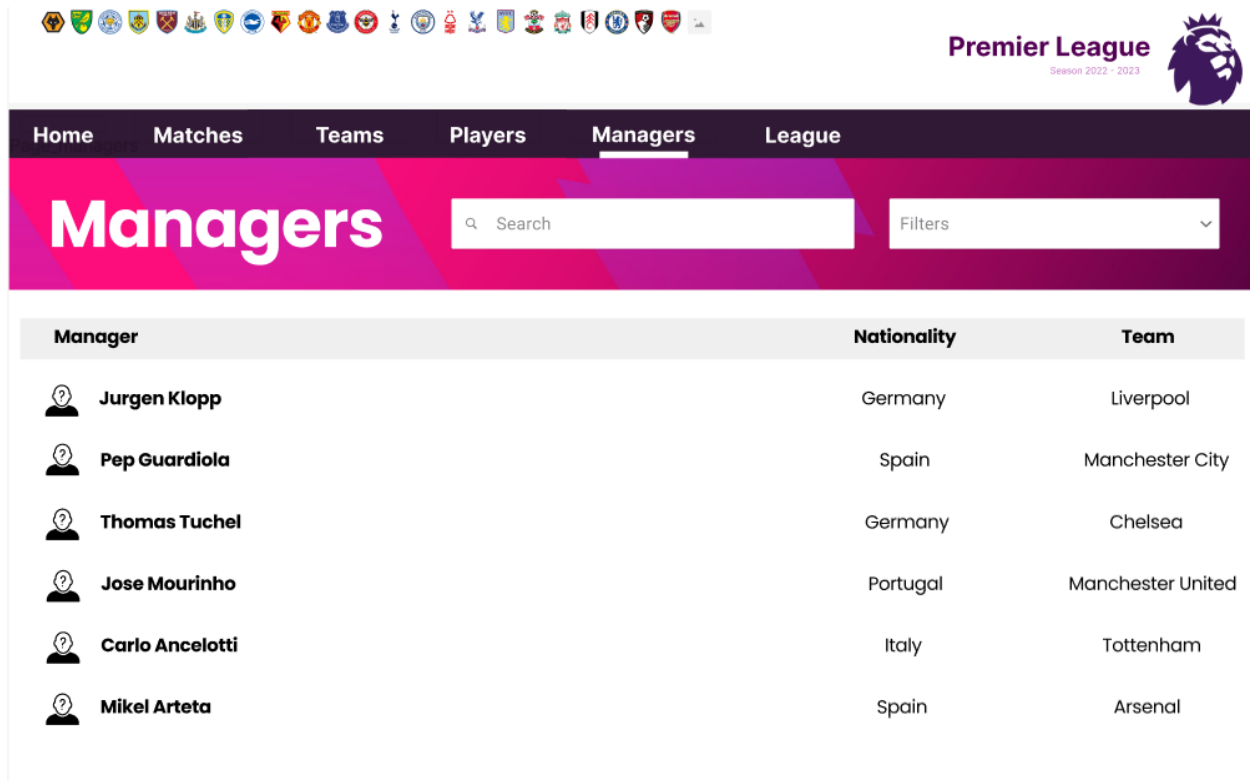


### 1.3.7. Managers Screen

#### 1.3.7.1. Main flow

Screen	Managers
Description	Managers
Screen Access	Users click on managers button

#### 1.3.7.2. User Interface



#### 1.3.7.3. Validation Rule/Data mapping

Field	Type	Description
Managers	Dropdown list	<ul style="list-style-type: none"><li>Managers</li><li>Display all managers</li><li>Mapping to field in DB: NFLM_MANAGER</li></ul>
Home	Button	<ul style="list-style-type: none"><li>Link to home page</li></ul>
Matches	Button	<ul style="list-style-type: none"><li>Link to matches page</li></ul>
Teams	Button	<ul style="list-style-type: none"><li>Link to teams page</li></ul>
Players	Button	<ul style="list-style-type: none"><li>Link to players page</li></ul>
Managers	Button	<ul style="list-style-type: none"><li>Link to managers page</li></ul>

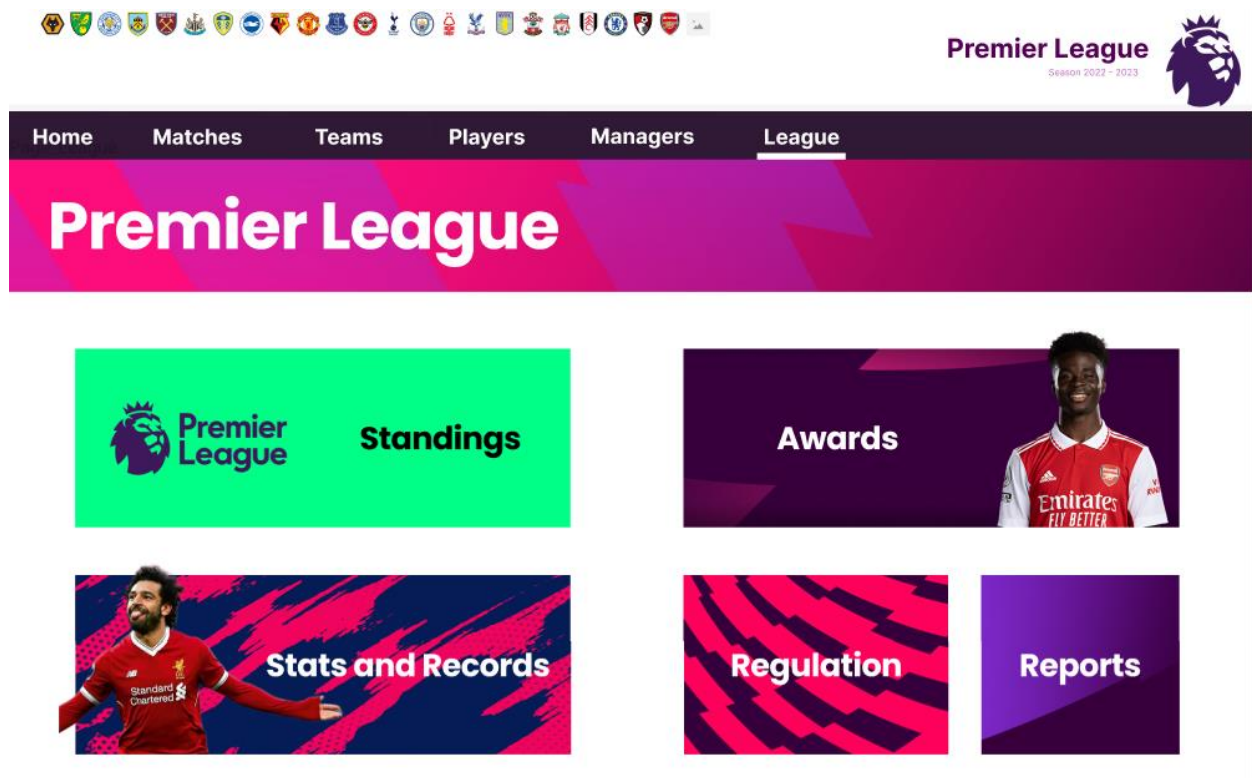
League	Button	<ul style="list-style-type: none"> <li>• Link to league page</li> </ul>
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### 1.3.8. League Info Screen

#### 1.3.8.1. Main flow

<b>Screen</b>	League
<b>Description</b>	League
<b>Screen Access</b>	Users click on league button

#### 1.3.8.2. User Interface



#### 1.3.8.3. Validation Rule/Data mapping

Field	Type	Description
Standings	Button	<ul style="list-style-type: none"> <li>• Link to standings page</li> </ul>
Awards	Button	<ul style="list-style-type: none"> <li>• Link to awards page</li> </ul>
Stats and Records	Button	<ul style="list-style-type: none"> <li>• Link to stats and records page</li> </ul>
Regulations	Button	<ul style="list-style-type: none"> <li>• Link to regulations page</li> </ul>
Reports	Button	<ul style="list-style-type: none"> <li>• Link to reports page</li> </ul>
Home	Button	<ul style="list-style-type: none"> <li>• Link to home page</li> </ul>

Matches	Button	• Link to matches page
Teams	Button	• Link to teams page
Players	Button	• Link to players page
Managers	Button	• Link to managers page
League	Button	• Link to league page

### 1.3.9. Regulations Screen

#### 1.3.9.1. Main flow

<b>Screen</b>	Regulations
<b>Description</b>	Regulations
<b>Screen Access</b>	Users click on league button then click on regulations button

#### 1.3.9.2. User Interface

#### 1.3.9.3. Validation Rule/Data mapping

Field	Type	Description
Regulations	Dropdown list	<ul style="list-style-type: none"> <li>• Regulations</li> <li>• Display all regulations</li> <li>• Mapping to field in DB: NFLM_REGULATION</li> </ul>
Home	Button	• Link to home page
Matches	Button	• Link to matches page
Teams	Button	• Link to teams page
Players	Button	• Link to players page
Managers	Button	• Link to managers page
League	Button	• Link to league page

### 1.3.10. Reports Screen

#### 1.3.10.1. Main flow

<b>Screen</b>	Reports
<b>Description</b>	Reports
<b>Screen Access</b>	Users click on league button then click on reports button

#### 1.3.10.2. User Interface

#### 1.3.10.3. Validation Rule/Data mapping

Field	Type	Description
Reports	Dropdo wn list	<ul style="list-style-type: none"> <li>• Regulations</li> <li>• Display all reports</li> </ul>
Home	Button	<ul style="list-style-type: none"> <li>• Link to home page</li> </ul>
Matches	Button	<ul style="list-style-type: none"> <li>• Link to matches page</li> </ul>
Teams	Button	<ul style="list-style-type: none"> <li>• Link to teams page</li> </ul>
Players	Button	<ul style="list-style-type: none"> <li>• Link to players page</li> </ul>
Managers	Button	<ul style="list-style-type: none"> <li>• Link to managers page</li> </ul>
League	Button	<ul style="list-style-type: none"> <li>• Link to league page</li> </ul>

### 1.3.11. Awards Screen

#### 1.3.11.1. Main flow

<b>Screen</b>	Awards
<b>Description</b>	Awards
<b>Screen Access</b>	Users click on league button then click on awards button

#### 1.3.11.2. User Interface

#### 1.3.11.3. Validation Rule/Data mapping

Field	Type	Description
Awards	Dropdo wn list	<ul style="list-style-type: none"> <li>• Regulations</li> <li>• Display all awards</li> </ul>
Home	Button	<ul style="list-style-type: none"> <li>• Link to home page</li> </ul>
Matches	Button	<ul style="list-style-type: none"> <li>• Link to matches page</li> </ul>
Teams	Button	<ul style="list-style-type: none"> <li>• Link to teams page</li> </ul>
Players	Button	<ul style="list-style-type: none"> <li>• Link to players page</li> </ul>
Managers	Button	<ul style="list-style-type: none"> <li>• Link to managers page</li> </ul>
League	Button	<ul style="list-style-type: none"> <li>• Link to league page</li> </ul>

### 1.3.12. League Standings Screen

#### 1.3.12.1. Main flow

<b>Screen</b>	League Standings
<b>Description</b>	League standings
<b>Screen Access</b>	Users click on league button then click on standings button

### 1.3.12.2. User Interface

Club	MP	W	D	L	GF	GA	GD	Pts
1 Arsenal	0	0	0	0	0	0	0	0
2 Manchester City	0	0	0	0	0	0	0	0
3 Manchester United	0	0	0	0	0	0	0	0
4 Newcastle United	0	0	0	0	0	0	0	0
5 Tottenham Hotspur	0	0	0	0	0	0	0	0
6 Aston Villa	0	0	0	0	0	0	0	0
7 Brighton & Hove Albion	0	0	0	0	0	0	0	0
8 Liverpool	0	0	0	0	0	0	0	0

### 1.3.12.3. Validation Rule/Data mapping

Field	Type	Description
Standings	Dropdown list	<ul style="list-style-type: none"> <li>Standings</li> <li>Display all teams with rank filtered</li> <li>Mapping to field in DB: NFLM_TEAM</li> </ul> NFLM_TEAM'S STAT
Home	Button	<ul style="list-style-type: none"> <li>Link to home page</li> </ul>
Matches	Button	<ul style="list-style-type: none"> <li>Link to matches page</li> </ul>
Teams	Button	<ul style="list-style-type: none"> <li>Link to teams page</li> </ul>
Players	Button	<ul style="list-style-type: none"> <li>Link to players page</li> </ul>
Managers	Button	<ul style="list-style-type: none"> <li>Link to managers page</li> </ul>
League	Button	<ul style="list-style-type: none"> <li>Link to league page</li> </ul>

### 1.3.13. Stats & Records Screen

#### 1.3.13.1. Main flow

Screen	Stats & Records
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<b>Description</b>	Stats & Records
<b>Screen Access</b>	Users click on league button then click on stats & records button

1.3.13.2. User Interface

1.3.13.3. Validation Rule/Data mapping

Field	Type	Description
Stats	Dropdo wn list	<ul style="list-style-type: none"> <li>• Stats</li> <li>• Display all players with their stats</li> <li>• Mapping to field in DB: NFLM_PLAYER'S STAT</li> </ul>
Records	Dropdo wn list	<ul style="list-style-type: none"> <li>• Records</li> <li>• Display all match records</li> <li>• Mapping to field in DB: NFLM_MATCH. RESULT</li> </ul>
Home	Button	<ul style="list-style-type: none"> <li>• Link to home page</li> </ul>
Matches	Button	<ul style="list-style-type: none"> <li>• Link to matches page</li> </ul>
Teams	Button	<ul style="list-style-type: none"> <li>• Link to teams page</li> </ul>
Players	Button	<ul style="list-style-type: none"> <li>• Link to players page</li> </ul>
Managers	Button	<ul style="list-style-type: none"> <li>• Link to managers page</li> </ul>
League	Button	<ul style="list-style-type: none"> <li>• Link to league page</li> </ul>