Informatics Institute of Technology

OOP 01 - ECSC501 Coursework 1 (Semester 1)

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Introduction

Football premier league mange system is a standalone application which is providing the details about the football premier league. This application is based on command line interface. In the main menu the user can select the desire option and according to the user option, program will manipulate.

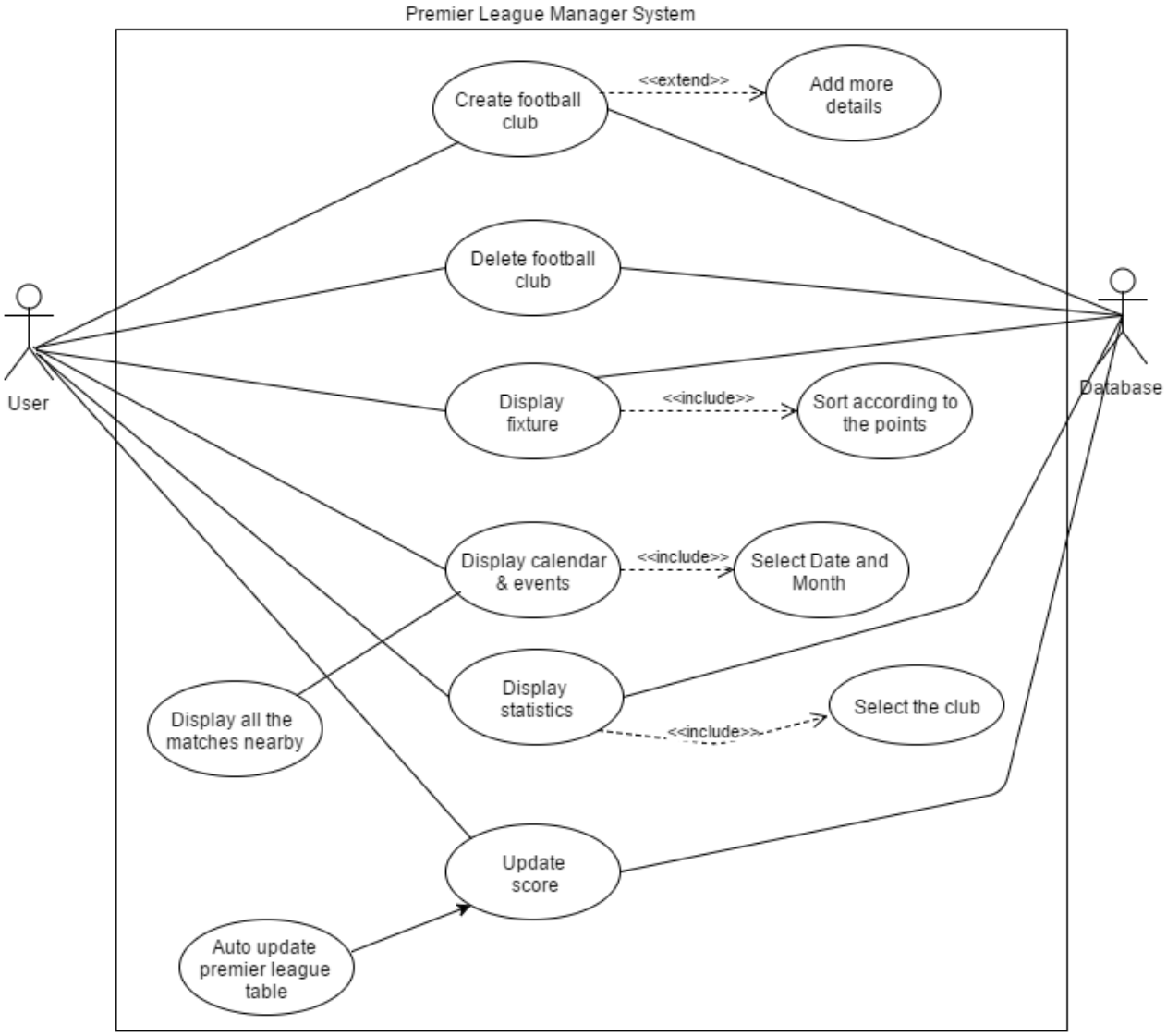
By using this application user can add clubs into the premier league and then the database will get updated. Here I have used MySQL database to store the objects. Each and every details are stored as an object. From the menu user can delete the particular football club from the premier league also.

Another feature is, application will be displayed the all the statistics regarding to some particular club. Some of these statistics are how many wins, goals, points etc. And the app will be displayed the premier league fixtures as well. The fixture will be displayed in the ascending order of points. If two clubs are having the same points, then it will calculate the difference of the goals.

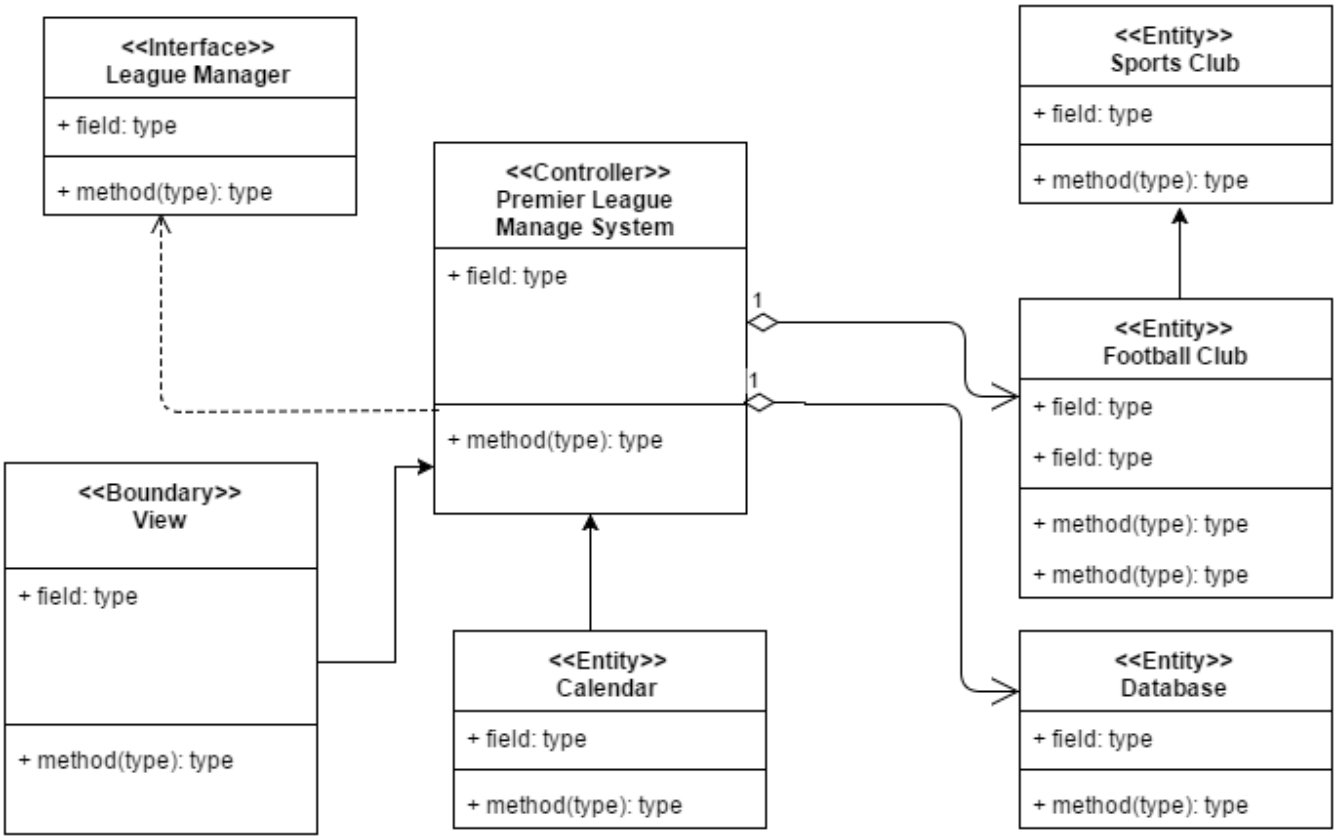
Finally, you can add the score of the played match to the database. Then the league table will get updated automatically. User can review the nearby matches by inputting the date also.

Design

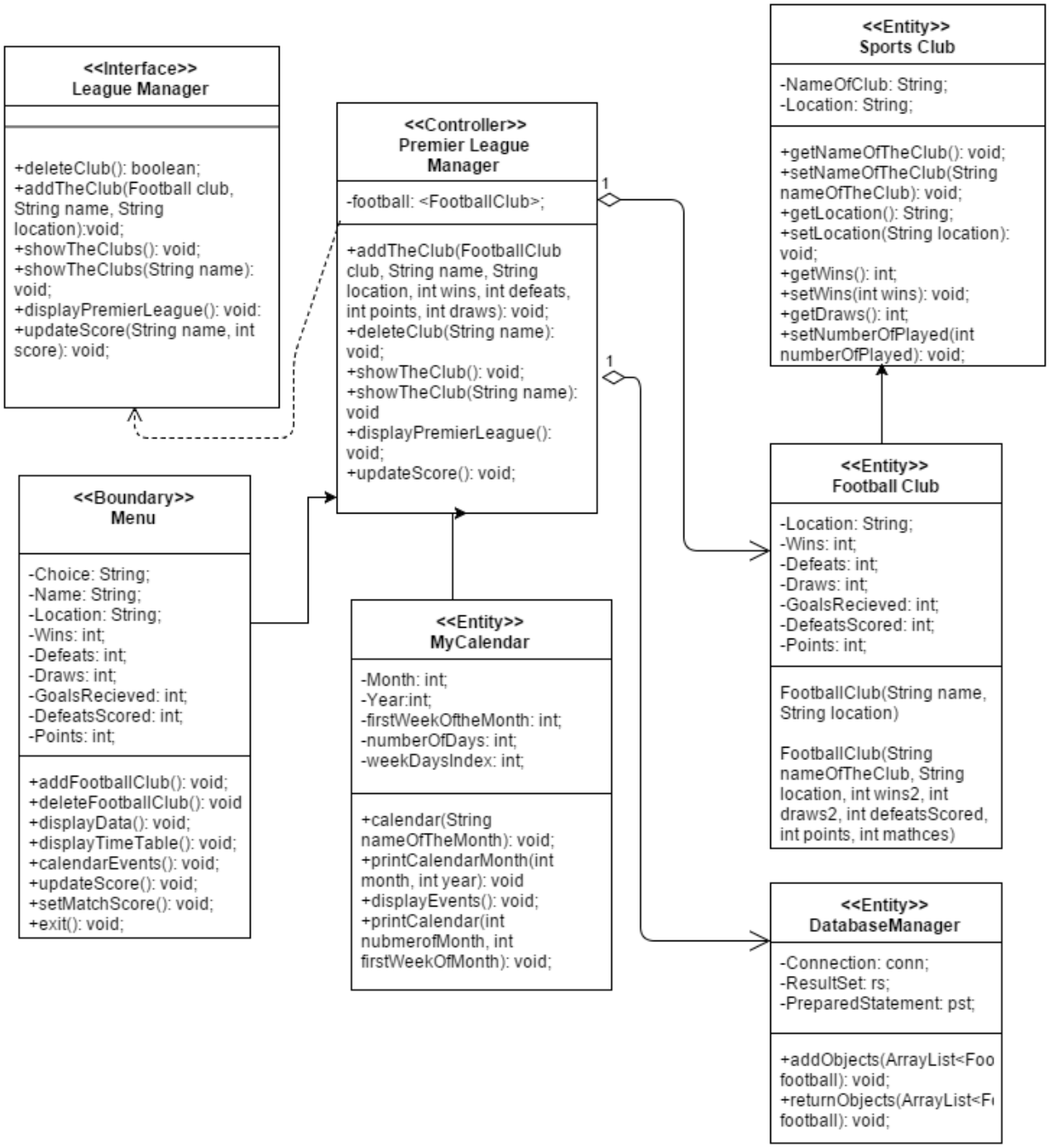
Use case diagram (Figure 1)



Initial Class diagram (Figure 2)

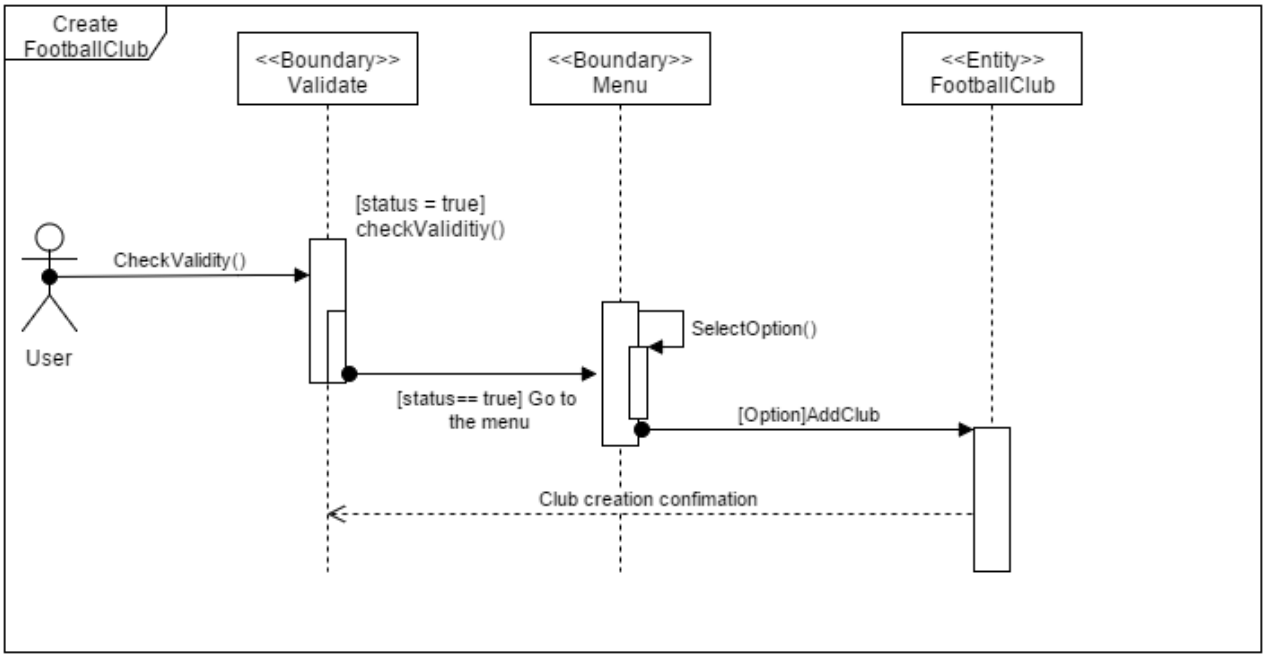


Final Class diagram (Figure 3)

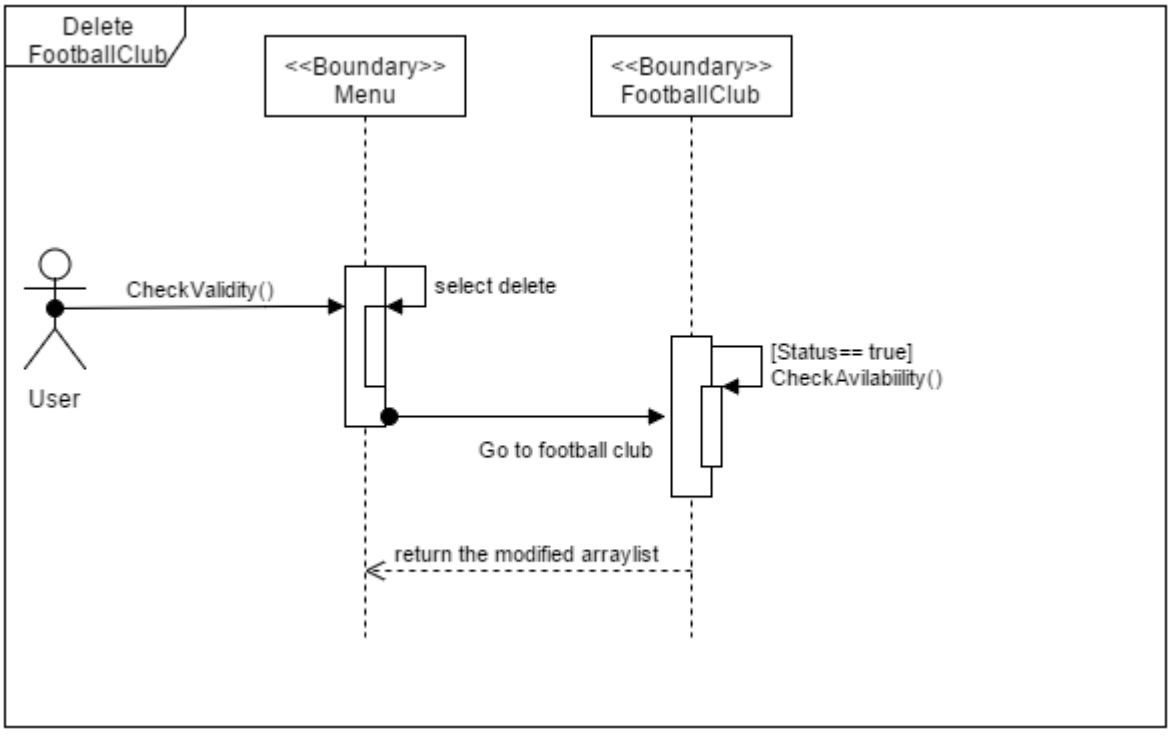


Sequence Diagrams

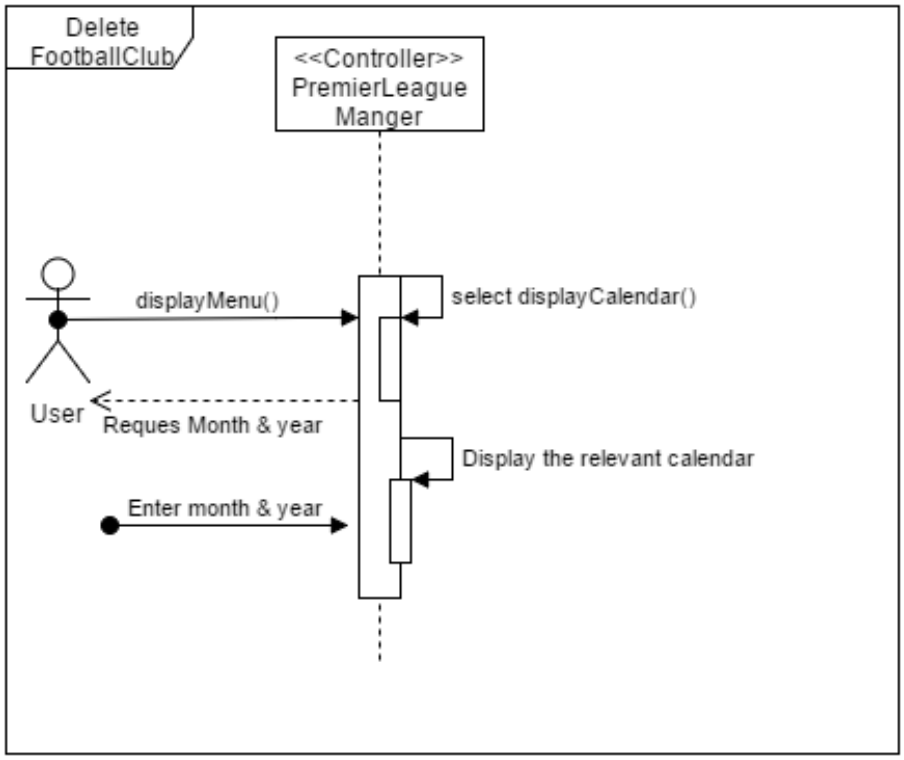
1. Club Creation (Figure 4)



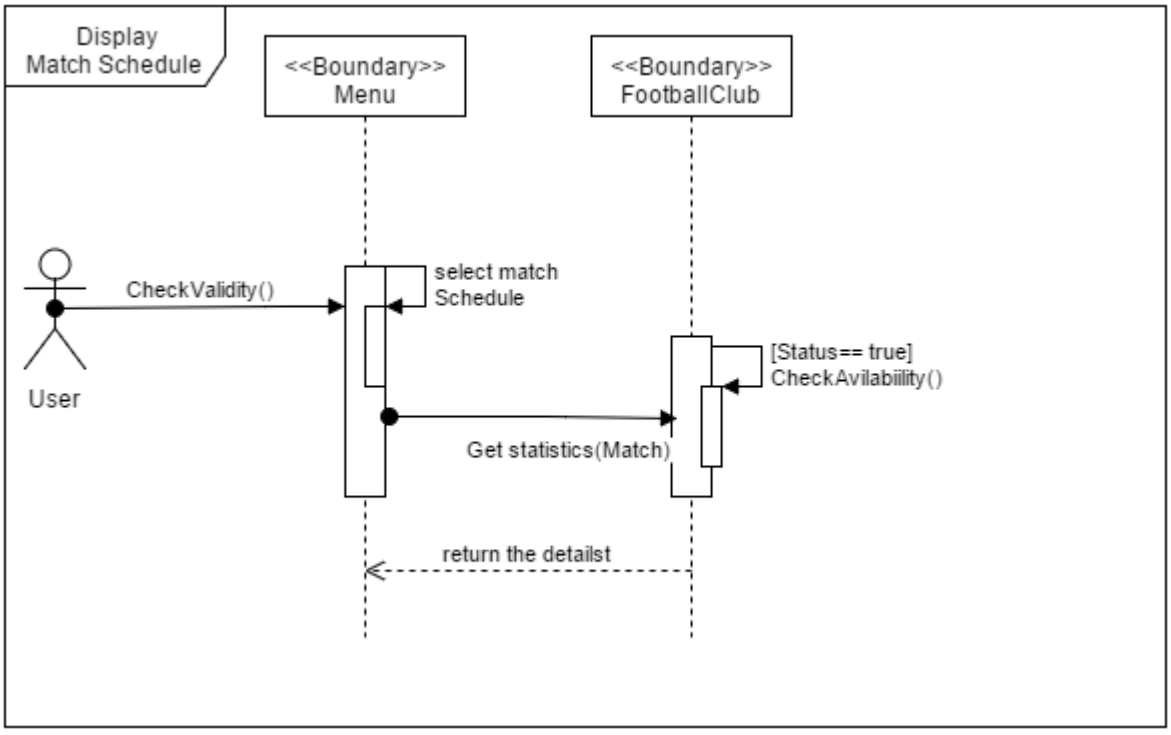
2. Delete Football club



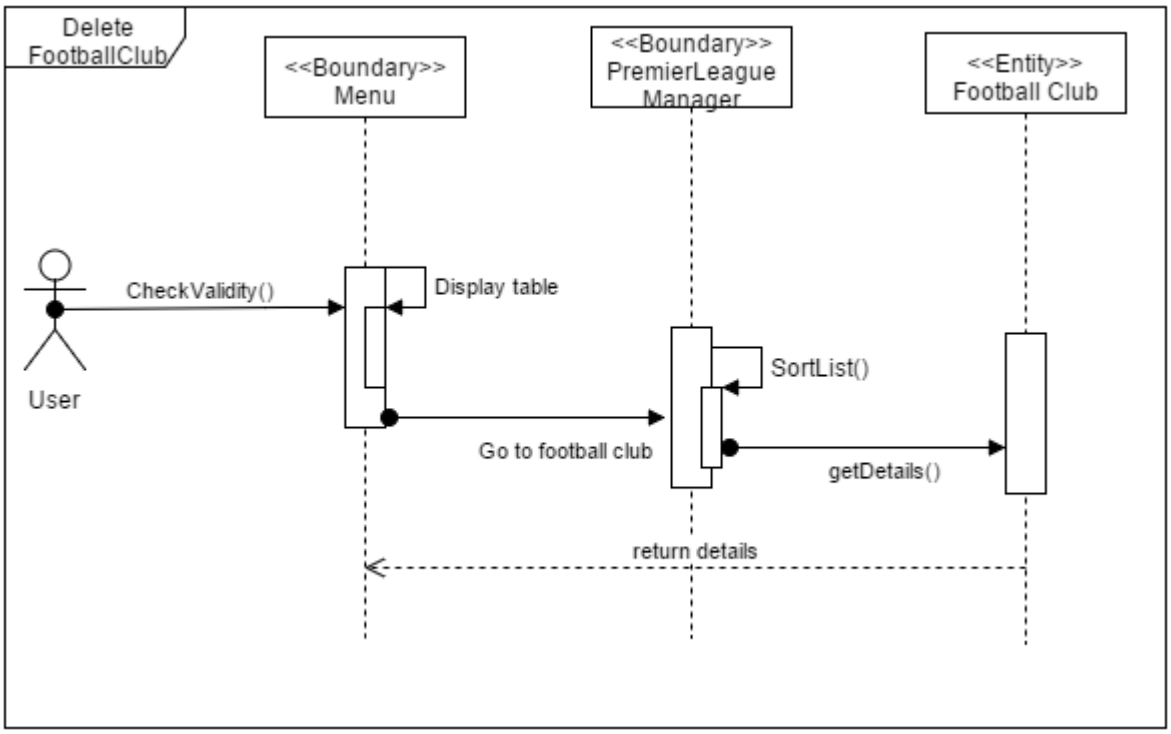
3. Display the calendar



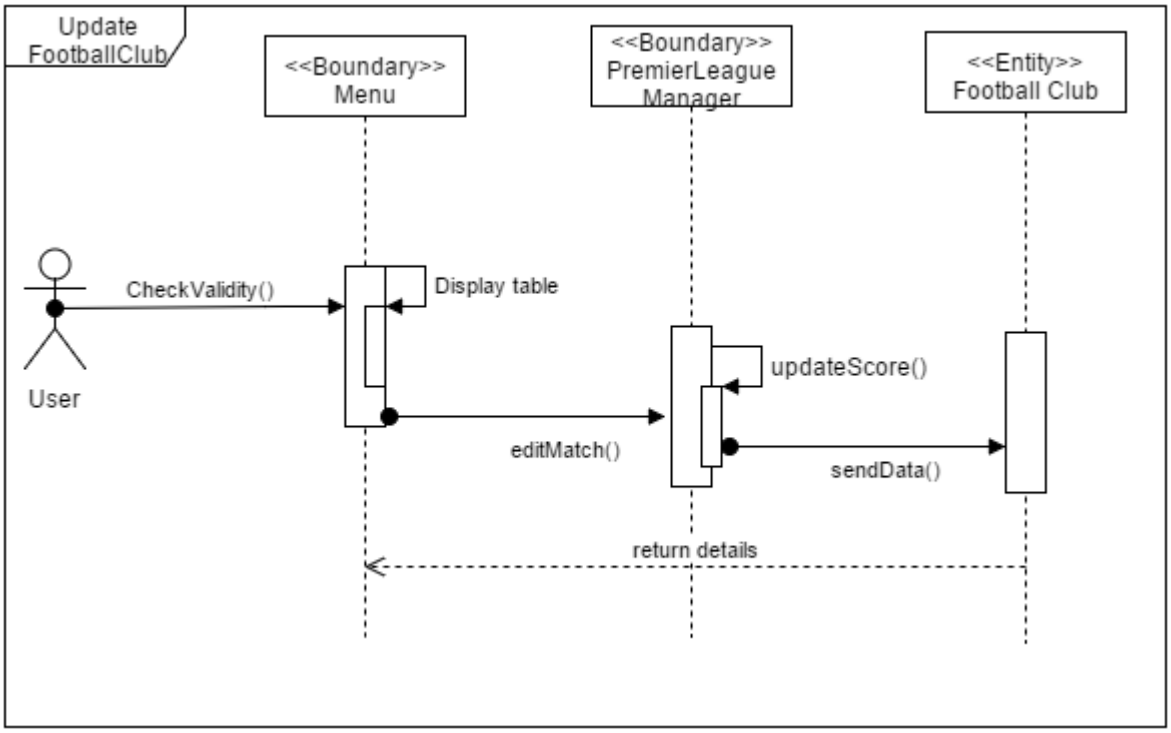
4. Display the match schedule



5.Display the premier league table



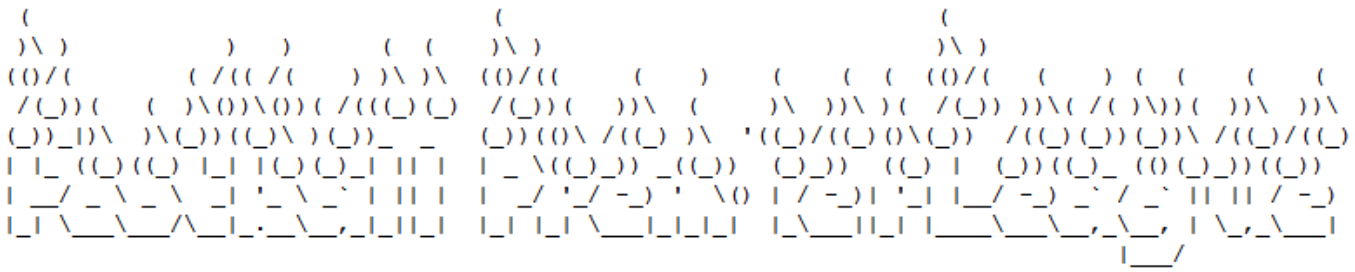
6. Update the football club



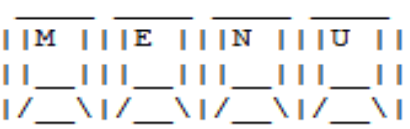
Screenshots

1. **Login screen and the logo**

```
Enter the user Name : isuru
Enter the user Password : isuru
```

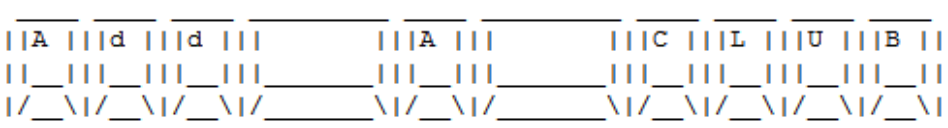


2. **Main menu**



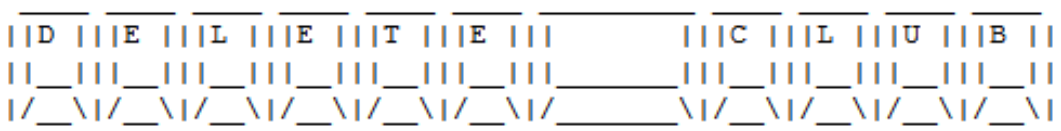
```
• Press 1 : Create a new football club
• Press 2 : Delete a football club
• Press 3 : Display the various statistics
• Press 4 : Display the premier league Table
• Press 5 : Display the calendar and the events
• Press 6 : Update Score
• Press 7 : Set match dates
• Press 8 : Exit
Enter your choice :
```

3. **Create a new football club menu**



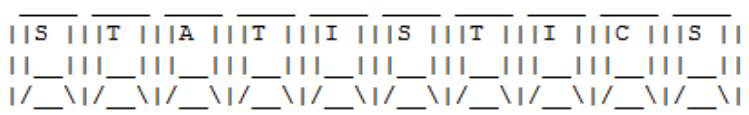
```
¤ Enter the name of the football club : Barcelona
¤ Enter the location of the football club :Spain
¤ Do you want to add more details to the club? (Y/N)
Y
• How many wins in the season? : 1
• How many draws in the season? : 2
• How many defeats in the season? : 3
• How many goals received in the season? : 4
• How many goals scored in the season? : 5
• How many number of points currently has? : 6
• How many matches played in the season? : 7
¤ Do you want to add again? (Y/N)
```

4. Delete the football club



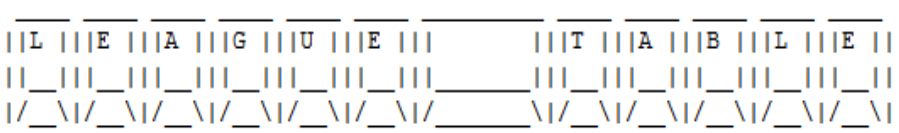

```
¤ Available clubs :
Barcelona |
¤ Enter the name of the football club you want to delete :
Barcelona
Club is deleted succesfully!
¤ Do you want to delete again? (Y/N)
```

5. Display the statistics




```
¤ Available clubs :
barcelona | Manchester |
¤ Select the club that you want to display the statistics :
barcelona
+------+-------+---------+----------------+--------------+--------+-----------------+
| Wins | Draws | Defeats | Goals Received | Goals Scored | Points | Matched Played |
+------+-------+---------+----------------+--------------+--------+-----------------+
| 1    | 2     | 4       | 4              | 4            | 6      | 7               |
+------+-------+---------+----------------+--------------+--------+-----------------+
Club not found!
¤ Do you want to go again? (Y/N)
```

6. Display the premier league Table




```
¤ Below table display all the details about the teams in decending order according to their points.
+-----------------+------+
| Club Name       |Points|
+-----------------+------+
| barcelona       | 6    |
| Manchester      | 2    |
+-----------------+------+
¤ Do you want to go again? (Y/N)
```

7. Display the calendar and the events

```
 ____ ____ ____ ____ ____ ____ ____ ____ _________ ____ _________ ____ ____ ____ ____ ____ ____
||C |||A |||L |||E |||N |||D |||A |||R |||       |||& |||       |||E |||V |||E |||N |||T |||S ||
||__|||__|||__|||__|||__|||__|||__|||__|||_______|||__|||_______|||__|||__|||__|||__|||__|||__||
|/__\|/__\|/__\|/__\|/__\|/__\|/__\|/__\|/_______\|/__\|/_______\|/__\|/__\|/__\|/__\|/__\|/__\|
```

```
¤ Please input the Year : 2015
¤ Pease input the Month : 11

November 2015
Su  Mo  Tu  We  Th  Fr  Sa
 1   2   3   4   5   6   7
 8   9  10  11  12  13  14
15  16  17  18  19  20  21
22  23  24  25  26  27  28
29  30
¤ Please choose a date : 2
+------------+-------------------------+------------+
|    Date    |          Match          |   Status   |
+------------+-------------------------+------------+
| 22.11.2015 | Barcelona vs Manchester | Not Played |
+------------+-------------------------+------------+
¤ Do you want to go again? (Y/N)
```

8. Update Score

```
 _____ _____ _____ _____ _____ _____ ___________ _____ _____ _____ _____ _____
||U |||P |||D |||A |||T |||E |||       |||S |||C |||O |||R |||E ||
||__|||__|||__|||__|||__|||__|||_______|||__|||__|||__|||__|||__||
|/__\|/__\|/__\|/__\|/__\|/__\|/_______\|/__\|/__\|/__\|/__\|/__\|
```

```
barcelona | Manchester |
====================
¤ Please choose the club : barcelona
¤ Enter the score : 23
¤ Do you want to update the score again? (Y/N)
```

9. Set match dates

```
 ____ ____ ____ _________ ____ ____ ____ ____ ____ _________ ____ ____ ____ ____ ____
||S |||e |||t |||       |||M |||a |||t |||c |||h |||       |||D |||a |||t |||e |||s ||
||__|||__|||__|||_______|||__|||__|||__|||__|||__|||_______|||__|||__|||__|||__|||__||
|/__\|/__\|/__\|/_______\|/__\|/__\|/__\|/__\|/__\|/_______\|/__\|/__\|/__\|/__\|/__\|
```

```
Available Clubs
manchester | barcelona |
====================
Select the first club :manchester
Select the second club :barcelona
Choose the shedulded date :12/12/2014
Result : manchester vs barcelona
¤ Do you want set again? (Y/N)
```

10. Exit

```
Enter your choice : 8

 ____ ____ ____ ____
||E ||||X ||||I ||||T ||
||__|||__|||__|||__||
|/__\|/__\|/__\|/__\|

¤ Do you want to Exit? (Y/N)
Y
Program terminated!
```

Testing

Black Box Testing (Table No1)

1. Adding football clubs to the database

Serial Number	Input	Expected Output	Actual Output	Bug
1	Name of the club: Barcelona Location: Spain	Create an object and added to the database	Create an object and added to the database	No
2	Name of the club: Location: Spain	Please enter the name of the club	Please enter the name of the club	No
3	Name of the club: Barcelona Location:	Please enter the location of the club	Please enter the location of the club	No
4	How many wins: 1 How many draws: 3 How many defeats: 4 Goals received: 5 Goals scored: 5 How many points: 9 Matches played: 3	Added more details to the object and the database.	Added more details to the object and the database.	No

2. Delete football club from the database.

Serial Number	Input	Expected Output	Actual Output	Bug
1	Name of the club: Barcelona	Club is deleted successfully.	Club is deleted successfully	No
2	Name of the club:	Please enter the name of the club	Please enter the name of the club	No

3. Display the various statists about the club

Serial Number	Input	Expected Output	Actual Output	Bug
1	Name of the club: Barcelona	Display the statistics about the club	Display the statistics about the club	No
2	Name of the club:	Please enter the name of the club	Please enter the name of the club	No

4. Update the score

Serial Number	Input	Expected Output	Actual Output	Bug
1	Choose the club: Barcelona Input score: 2	Update the score	Update the score	No
2	Name of the club: Input score: 2	Please enter the name of the club	Please enter the name of the club	No
3	Name of the club: Barcelona Input score:	Please input the score	Please input the score	No

5. Display the calendar

Serial Number	Input	Expected Output	Actual Output	Bug
1	Input year: 2015 Input month: 2	Display the relevant month	Display the relevant month	No
2	Input year: Input month: 2	Please input the year	Please input the year	No
3	Input year: 2015 Input month:	Please input the month	Please input the month	No

White box testing (Table No 2)

Test No	Condition	Path
1	Base on the user input in the menu	True: Display the relevant menu False: Invalid input
2	Add more details about the club	True: Data will be added False: Go back to the main menu
3	When user delete the chosen club	True: Delete from the database False: Club not found
4	Display the various statics	True: Display the information about the relevant club False: Club not found
5	Update the played match score	True: Score is updated False: Invalid data
6	Display the calendar by getting input from the user	True: Calendar will be displayed False: Calendar won't be displayed
7	Create a new football club	True: Club will be created False: Club won't be created
8	Delete the club	Ture: Club will be deleted False: Club will not be deleted
9	Display the premier league table	True: Premier league table will be displayed False: Premier league table will not be displayed
10	User want to exit from the system	True: Program will be terminated False: Invalid data