**Used framework / technologies**

* For web scrapping: Selenium
* For data editing and correction: Excel
* Overall programming language: Python
* Remote database: <https://www.db4free.net/> and phpMyAdmin
* For GUI: TKinter
* SQL: MySQL workbench 8.0

**How to run the project**

In the submission folder, navigate to “PL\_DB executable” folder, then navigate to “dist” folder, then run PL\_DB.exe (leave it for a few seconds to load, as the remote database takes some time to connect and do queries)

**How to navigate the program**

The program is self-explained:

* There are 11 buttons in the main page for the 11 different required features in the project.
* Adding a new user review requires you to login, which requires you to register as a user (third feature in the main page). When logged in, you have to search for the match existence in the first place to put a review on it, please follow the specified format and input correct and valid data, otherwise you will not find the records that you desire. After finding the match, you can choose the rating from the drop box (1-10) then type in the review, and then click on the “Enter” button (will not be available until a valid match is found to review) to insert your review into the database. You cannot put a review on the same match twice with the same account (error will appear). You cannot login with an invalid account (error will appear).
* For the second feature, you can view existing reviews by other (yourself included) on a match given the correct inputs of the match date, home team, and away team. Again, please follow the specified format and input correct data, otherwise, you will not find the records
* Third option, you can register as a fan, specifying the required information. If any data is not correct, you will receive an error. If Email is already registered, you will get an error. Password and username should be longer than 4 characters (5 at least), You should only choose M or F for the Gender field. For the Birth date, please follow the format, otherwise you will get an error. If all entered data is valid and following the format, you will get a success message.
* Fourth option, you can view players’ first name, last name, club name, and the season that he was playing for that club by specifying the nationality.
* Fifth feature, you can view the top 10 teams (in the last 4 seasons only) and their stats for each of the following: matches won, home matches won, yellow cards, fouls, shots.
* Sixth feature, you can view teams’ ranking regarding the number of wins along the number of wins for each season.
* Seventh feature, you can view a given team information by specifying the team’s name.
* Eighth feature, you can view all player’s information by specifying the correct and complete first and last name of that player.
* Ninth feature, you can view the home team name for the inputted home stadium.
* Tenth feature, you can view all players (First and last name) playing in a certain position which is inputted.
* Eleventh feature (bonus), you can show all the clubs in the UK in a specific inputted city.
* For all previous feature, you can return to the main page by clicking on the return button on the top right corner of the program.

NOTE: the remote database can take some time to do the queries, so please be patient after clicking the search button in each frame.

I had to switch from <https://www.freemysqlhosting.net/> to <https://www.db4free.net/> because the first one only lasts one week and you cannot extend the time, so I used the one suggested by the doctor in the slides (the second one), but its limitation is that it takes time to load.

**Bonus requirements done**

* Implemented the Project using GUI (I had to learn GUI from scratch in the last few days, that is why the GUI might have some problems or might not look as pleasant, but I worked hard and did my best as you can probably see from the size of the program)
* Implemented the bonus feature (Identify all the teams in a given city in the UK).