The Design:

The design of the web application was kept fairly simple. Firstly, the database design was very simple. The first table in the database was of the names of the major Football tournaments played in the world. The second table held the details of the matches that took place in these tournaments. The above two tables were linked with each other using the foreign key from the first table in the second table. The design also included a third table which consisted of the data of all the goal scorers for these matches in the tournaments. The third table was linked to the second table using a foreign key from the second table into the third table.

Secondly, for the logic of the web application, a sort of MVC technique was used. Where the Model, which looks after the business logic of the application, was written in the parse.db.py. This is where the data from a CSV file was converted and added into the database in the necessary tables. Also, the View is the HTML files which are inside the templates folder. These represent the visual part to the end user. Finally, the controller was football.py as it understands the user's request and shows only the necessary data/pages to the end user.

Lastly, the front-end of the web application is very simple as it only consists of HTML. There is no CSS or JavaScript used for this web application as it is outside the scope of the project.

The Development:

The web application was developed using Python and Flask. Flask is a lightweight framework that has very few predefined steps which are to be followed to kickstart a web application. The steps are as follows:
- pyenv install 3.7.9 or install 3.7.0 (to install a python environment with either of these versions) pyenv local 3.7.9 or local 3.7.0 (to set up the local version)
- python3 -m venv .venv (to create a virtual environment) source .venv/bin/activate (to activate the virtual environment)
- pip install --upgrade pip (to install and upgrade the pip version)
- pip install flask (to install Flask)
- export FLASK_APP=story.py (to set which file is to be read to run the logic)
- export FLASK_ENV=development (to set the environment of the development)
- python3 -m flask run -h 0.0.0.0 (to run the server locally on Codio).

Just following these basic steps helps set up the development of the web application.

The Implementation:

The above steps were used to implement and kickstart the web application. The 'parse.db.py' file was used to parse the CSV file into the database tables. Two CSV files were used to gather the data needed for the web application. The data from these files were parsed and stored in the database. The tables were dropped if they already existed in the database to create fresh new tables. The CSV files were read, and the necessary data was added to the required

columns using the CSV module of Python. The 'football.py' file is used to redirect the user to the pages they want to view.

Use of the Application:

The web application shows the football match results of top tournaments in the footballing world. The first page shows the list of all the top tournaments. Upon clicking any of the names/links of the tournaments, the user is shown all the matches played in the tournament from a specific timeline, which is since 2013. Further clicking on the link which says 'view goal details' shows all the goal scorers' names and related data to the user. This is how a user can view the results of the matches they want to check and view.