

# User Manual – FIFASTATS World Cup Application

## 1. Environment Setup

### a) PostgreSQL

- i. Install PostgreSQL version  $\geq 16$  using this link

<https://www.postgresql.org/download/>

- ii. Install pgAdmin 4 using this link

<https://www.pgadmin.org/download/>

### b) Flask

- i. In the terminal, navigate to the project directory

*cd project directory*

- ii. Create and activate a virtual environment

#### **For Windows:**

Create virtual environment: *python3 -m venv venv*

Activate virtual environment: *.\venv\Scripts\activate*

#### **For Mac:**

Create virtual environment: *python 3 -m venv venv*

Activate virtual environment: *source venv/bin/activate*

- iii. Install dependencies

*pip install -r requirements.txt*

## 2. PostgreSQL Configuration

- a) Open the pgAdmin 4 application and connect to your PostgreSQL server.

- b) Click onto the 'Servers' > 'PostgreSQL' > 'postgres', right click and select 'Query Tool' and run the following command to create the database.

- i. To create the database

*CREATE DATABASE fifa\_db*

- c) Right click onto the 'Databases' and select 'refresh'

- d) You should be able to see the newly created database, *fifa\_db*. Right click onto it and select 'Query Tool'.

- e) Next, open the SQL script 'FIFA\_SetUpDB.sql' (can be found in the project directory > sql folder), copy the codes and paste it into the 'Query Tool'.

- i. For section (3) Import dataset in the sql codes, please change the path to the path of your project directory for all the nine csv files.

Eg:

*copy stadiums FROM*  
*'D:\path\_to\_project\_directory...\Database\dataset\new\_stadiums\_*  
*table.csv' DELIMITER ',' CSV HEADER;*

```

149     created_at DATE NOT NULL DEFAULT CURRENT_DATE,
150     FOREIGN KEY (admin_id) REFERENCES Admin(admin_id),
151     CHECK (activity_timestamp <= CURRENT_TIMESTAMP),
152     CHECK (activity_type IN ('create', 'update', 'delete'))
153 );
154
155 -----
156 -- (3) Import dataset
157 copy stadiums FROM 'D:\path_to_project_directory...\Database\dataset\new_stadiums_table.csv' DELIMITER ',' CSV HEADER;
158 copy referees FROM 'D:\path_to_project_directory...\Database\dataset\new_referees_table.csv' DELIMITER ',' CSV HEADER;
159 copy teams FROM 'D:\path_to_project_directory...\Database\dataset\new_teams_table.csv' DELIMITER ',' CSV HEADER;
160 copy players FROM 'D:\path_to_project_directory...\Database\dataset\new_players_table.csv' DELIMITER ',' CSV HEADER;
161 copy tournaments FROM 'D:\path_to_project_directory...\Database\dataset\new_tournaments_table.csv' DELIMITER ',' CSV HEADER;
162 copy tournament_scorers FROM 'D:\path_to_project_directory...\Database\dataset\new_tournament_scorers_table.csv' DELIMITER ',' CSV HEADER;
163 copy matches FROM 'D:\path_to_project_directory...\Database\dataset\new_matches_table.csv' DELIMITER ',' CSV HEADER;
164 copy goals FROM 'D:\path_to_project_directory...\Database\dataset\new_goals_table.csv' DELIMITER ',' CSV HEADER;
165 copy player_performance FROM 'D:\path_to_project_directory...\Database\dataset\new_player_performance_table.csv' DELIMITER ',' CSV HEADER;
166
167 -----
168 -- (4) INSERT ADMIN DATA
169
170 CREATE EXTENSION IF NOT EXISTS pgcrypto;
171

```

ii. Then, run/execute the script.

f) Next, open the SQL script 'FIFA\_TriggerFunction.sql' (*can be found in the project directory > sql folder*), copy the codes and paste it into the 'Query Tool'. Then, run/execute the script.

### 3. Flask Application Configuration

a) Create a .env file in the root directory of the project. Paste the following line into the file and save.

*DATABASE\_URL=postgresql://fifa\_admin:fifa\_admin!@localhost/fifa\_db*

### 4. Running the Application

a) Ensure that you have activated the environment. Else, refer to the Environment Setup.

b) To run the application, run the command: *flask run*

c) You should be able to see and access the website. \* *Running on*  
<http://127.0.0.1:5000>

FIFASTATS

Teams

Players

Matches

Ranking

Admin

Most FIFA World Cup Wins	
Brazil	5 wins
Italy	4 wins
Argentina	3 wins
West Germany	3 wins
France	2 wins
Uruguay	2 wins
Spain	1 wins
Germany	1 wins
England	1 wins

Top Scorers	
Miroslav Klose	16 goals
Ronaldo	15 goals
Gerd Müller	14 goals
Just Fontaine	13 goals
Lionel Messi	13 goals
Pelé	12 goals
Kylian Mbappé	12 goals
Sándor Kocsis	11 goals
Jürgen Klinsmann	11 goals
Thomas Müller	10 goals

Players with Most Yellow and Red Cards	
Javier Mascherano	7 Yellow 0 Red
Cafu	6 Yellow 0 Red
Rafael Márquez	5 Yellow 1 Red
Sulley Muntari	5 Yellow 0 Red
Héctor Moreno	5 Yellow 0 Red
Dario Šimić	5 Yellow 0 Red
Giovanni van Bronckhorst	5 Yellow 0 Red
Lothar Matthäus	5 Yellow 0 Red
Eddie Pope	5 Yellow 0 Red
Nicolás Otamendi	5 Yellow 0 Red

Recent Match Results

Home Team	Away Team	Home Goals	Away Goals
Argentina	France	3	3