

## Tennis Data Explorer with SportRadar API

### Project Overview

Tennis Data Explorer is a data analytics web application built using Streamlit that collects, stores, and visualizes global tennis event data from the SportRadar API. The goal is to help sports enthusiasts, analysts, and organizations explore tournaments, understand competition structures, and analyze player performances interactively.

### Features

View summary statistics (competitors, countries, points)

Filter & search competitors by name, country, or points

Analyze rank movement and trends

Country-wise distribution and leaderboard

Interactive charts for competition type, gender, and more

### Folder Structure

bash

Copy

Edit

tennis\_project/

```
|
|— app.py                # Streamlit main app
|— categories.csv        # Categories data
|— competitions.csv      # Competitions data
|— complexes.csv        # Complexes data
|— venues.csv            # Venues data
|— competitors.csv      # Competitor details
|— competitor_rankings.csv # Ranking data
|— sql_queries.sql       # SQL queries executed
|— requirements.txt      # Python packages
|— README.md             # Project documentation
```

### Tech Stack

Tool	Purpose
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Python	Scripting and data transformation
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MySQL	Data storage & query execution
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Pandas	Data manipulation
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Plotly	Interactive charts
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Streamlit	Web dashboard and UI
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## Data Source

All data is collected from the SportRadar Tennis API.

## Use Cases

- 1.Explore competition types like ATP, WTA, and ITF
- 2.Understand country-wise dominance in rankings
- 3.Discover top-ranked tennis players

Analyze trends in event types (singles, doubles)

## How to Run This Project

Clone this repository

```
github- https://github.com/shrutibhadoria/Projects
```

```
cd tennis-dashboard
```

Install dependencies

```
pip install -r requirements.txt
```

Run the Streamlit app

```
streamlit run app.py
```

## SQL Queries

All SQL queries used for data analysis are saved in `sql_queries.sql`.



Author

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## Status

Completed (Data Collection, SQL, and Visualization working locally)

Fetch data in PythonTennis Data ExplorerGitHub - shrutibhadoria/Projectlocalhost:8501

Deploy

Navigate

Dashboard

Dashboard

Competitor Search

Country Analysis

Leaderboards

Trend Analysis

Summary Statistics

Total Competitors

1000

Countries Represented

77

Highest Points

8595

TOP

Top 10 Competitors

	name	rank	points	movement	country
0	Pavic, Mate	1	8595		0 Croatia
500	Siniakova, Katerina	1	7875		0 Czechia
1	Arevalo-Gonzalez, Marcelo	1	8595		0 El Salvador
501	Townsend, Taylor	2	7615		0 USA
502	Ostapenko, Jelena	3	7333		0 Latvia
2	Glasspool, Lloyd	3	7120		0 Great Britain
3	Cash, Julian	4	6615		0 Great Britain
503	Routliffe, Erin	4	6610		0 New Zealand
4	Heliovaara, Harri	5	6420		0 Finland
504	Kudrmetova, Veronika	5	6435		0 Neutral

Trending videos

Stranger Things...

Search

ENG IN

23:42

31-07-2025

Fetch data in PythonTennis Data Explorershrutibhadoria/Projectslocalhost:8501

Deploy

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Dashboard

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Sports headline

Indian players re...

Search

ENG IN

23:54

31-07-2025

Fetch data in PythonTennis Data Explorershrutibhadoria/Projectslocalhost:8501

Deploy

NavigateCompetitor Search

Search & Filter Competitors

Enter Competitor Name

Pavic, Mate

Press Enter to apply

Select Rank Range

128511000

Select Country

All

	name	rank	points	movement	country
0	Pavic, Mate	1	8595	0	Croatia
1	Arevalo-Gonzalez, Marcelo	1	8595	0	El Salvador
2	Glasspool, Lloyd	3	7120	0	Great Britain
3	Cash, Julian	4	6615	0	Great Britain
4	Heliovaara, Harri	5	6420	0	Finland
5	Patten, Henry	5	6420	0	Great Britain
6	Granollers, Marcel	7	6135	2	Spain
7	Zeballos, Horacio	8	6135	2	Argentina
8	Koudatze, Koudatze	9	5935	0	Czechia

Sports headlineIndian players re...23:5431-07-2025

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Deploy

NavigateCountry Analysis

Competitors by Country

Top 20 Countries by Competitors

country	total_competitors	avg_points
USA	106	798.2925
Neutral	62	766.1613
Great Britain	55	988.8909

Sports headlineIndian players re...23:5531-07-2025

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NavigateLeaderboards

## Competitor Leaderboards

### Top 10 Ranked Competitors

	name	rank	points	movement	country
0	Pavic, Mate	1	8595	0	Croatia
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### Highest Points Scored

	name	points	rank	country
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Fetch data in PythonTennis Data Explorershrutibhadoria/Projectslocalhost:8501

Deploy

NavigateLeaderboards

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