



Tennis Grand Slams Titles

IT325 Web Services

Final Project

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Table of Contents

1 Introduction

► Introduction

► Backend

► Interface

Inspiration

Why?





Tennis Grand Slams Winners

What can the app do?

- Users can get information about GS Winners since the start of competition and they can also make their predictions.



Table of Contents

2 Backend

► Introduction

► Backend

► Interface

Structure Database

Server: 127.0.0.1 - Database: grand_slams - Table: champions

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking

Year 1 Australian_Open Roland_Garros Wimbledon US_Open

2023	Novak Djokovic (23/24)	Novak Djokovic (23/24)	Carlos Alcaraz (2/2)	Novak Djokovic (24/24)
2022	Rafael Nadal (21/22)	Rafael Nadal (22/22)	Novak Djokovic (21/24)	Carlos Alcaraz (1/2)
2021	Novak Djokovic (18/24)	Novak Djokovic (19/24)	Novak Djokovic (20/24)	Daniil Medvedev (1/1)
2020	Novak Djokovic (17/24)	Rafael Nadal (20/22) [n]	cancelled (COVID-19 pandemic)	Dominic Thiem (1/1)
2019	Novak Djokovic (15/24)	Rafael Nadal (18/22)	Novak Djokovic (16/24)	Rafael Nadal (19/22)
2018	Roger Federer (20/20)	Rafael Nadal (17/22)	Novak Djokovic (13/24)	Novak Djokovic (14/24)
2017	Roger Federer (18/20)	Rafael Nadal (15/22)	Roger Federer (19/20)	Rafael Nadal (16/22)
2016	Novak Djokovic (11/24)	Novak Djokovic (12/24)	Andy Murray (3/3)	Stan Wawrinka (3/3)
2015	Novak Djokovic (8/24)	Stan Wawrinka (2/3)	Novak Djokovic (8/24)	Novak Djokovic (10/24)
2014	Stan Wawrinka (1/3)	Rafael Nadal (14/22)	Novak Djokovic (7/24)	Martin Čáč (1/1)
2013	Novak Djokovic (5/24)	Rafael Nadal (12/22)	Andy Murray (2/3)	Rafael Nadal (13/22)
2012	Novak Djokovic (5/24)	Rafael Nadal (11/22)	Roger Federer (17/20)	Andy Murray (1/3)
2011	Novak Djokovic (2/24)	Rafael Nadal (10/22)	Novak Djokovic (5/24)	Novak Djokovic (4/24)
2010	Roger Federer (18/20)	Rafael Nadal (7/22)	Rafael Nadal (8/22)	Rafael Nadal (9/22)
2009	Rafael Nadal (6/22)	Roger Federer (14/20)	Roger Federer (15/20)	Juan Martín del Potro (1/1)
2008	Novak Djokovic (1/24)	Rafael Nadal (4/22)	Rafael Nadal (5/22)	Roger Federer (13/20)
2007	Roger Federer (10/20)	Rafael Nadal (3/22)	Roger Federer (11/20)	Roger Federer (12/20)
2006	Roger Federer (7/20)	Rafael Nadal (2/22)	Roger Federer (8/20)	Roger Federer (6/20)
2005	Martín Salán (2/2)	Rafael Nadal (1/22)	Roger Federer (5/20)	Roger Federer (4/20)
2004	Roger Federer (2/20)	Gastón Gaudio (1/1)	Roger Federer (3/20)	Roger Federer (4/20)
2003	Andre Agassi (8/8)	Juan Carlos Ferrero (1/1)	Roger Federer (1/20)	Andy Roddick (1/1)
2002	Thomas Johansson (1/1)	Albert Costa (1/1)	Lleyton Hewitt (2/2)	Pete Sampras (14/14)
2001	Andre Agassi (7/8)	Gustavo Kuerten (3/3)	Coran Ivančević (1/1)	Lleyton Hewitt (1/2)

Consolidate

Server: 127.0.0.1 - Database: grand_slams - Table: titles

Browse

Structure

SQL

Search

Insert

Export

Import

Privileges

Operations

Tracking

Triggers

Options

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Framework and technologies

2 Backend

- Python: Developing the API
- Flask
- MySQL: Database Management
- Apache
- BeautifulSoup
- Swagger
- Insomnia
- CORS
- Streamlit

HTTP Methods

Everything you need

Tennis API ^{1.0}	
[Base URL: /] /swagger.json	
Tennis Grand Slams Champions	
Endpoints Default namespace	
POST	/champions
DELETE	/champions/{year}
POST	/login
POST	/signup
GET	/titles List of Players with 3 titles or more
GET	/titles/{player_name} Total Grand Slams Titles for each player
Models	



User Authentication

2 Backend

- After successful sign-up, the user credentials will be stored in the database table named "users" with hashed password. Users cannot create an account with an existing username.
- Upon successful login the user will receive an access token that will grant him access to all the other methods. Users who do not provide the right username or password will get "incorrect username or password" (error 401).



User Authentication

2 Backend

- Bearer Tokens will expire after 15minutes. So users will only have a valid session of only 15minutes.

Server Running

2 Backend

```
● (apiproject) PS C:\Users\21696\Desktop\api project> cd apiproject  
○ (apiproject) PS C:\Users\21696\Desktop\api project\apiproject> streamlit run interface.py
```

You can now view your Streamlit app in your browser.

Local URL: <http://localhost:8501>

Network URL: <http://192.168.1.167:8501>



Table of Contents

3 Interface

▶ Introduction

▶ Backend

▶ Interface

Tennis Grand Slams Champions

Signup

Username/Email

Password

Signup

Login

Username/ Email

Password

Login

Please log in to access the endpoints.

```
streamlit run interface.py
```

Tennis Grand Slams Titles

Thank you for listening!
Any questions?