PDS Assignment – 3

Name: Sai Pavan Pratapagiri

ID: 16343743

Source Code:

Installing Jupiter-dash

```
!pip install jupyter-dash
```

The below Python code utilizes the `requests` library to make an HTTP GET request to the specified URL, fetching NCAAF rankings data from a sports API. The request includes custom headers for authentication. Upon receiving a response, the JSON data is printed to the console. The `querystring` variable contains parameters for the request, specifying the desired league as NCAAF.

```python
import requests

url = "https://sportspage-feeds.p.rapidapi.com/rankings"

querystring = {"league":"NCAAF"}

headers = {
    "X-RapidAPI-Key": "2233528b1dmsh8d748e99b519012p1c55d6jsncb48593d3f18",
    "X-RapidAPI-Host": "sportspage-feeds.p.rapidapi.com"
}

response = requests.get(url, headers=headers, params=querystring)

print(response.json())
```

The below code is to download the response.json

```python
#downloading the response.json
import json

url = "https://sportspage-feeds.p.rapidapi.com/rankings"

querystring = {"league":"NCAAF"}

headers = {
    "X-RapidAPI-Key": "2233528b1dmsh8d748e99b519012p1c55d6jsncb48593d3f18",
    "X-RapidAPI-Host": "sportspage-feeds.p.rapidapi.com"
}

response = requests.get(url, headers=headers, params=querystring)

with open('response.json', 'w') as f:
    json.dump(response.json(), f)
```

The below Python code is a Dash web application that fetches NCAAF (National Collegiate Athletic Association Football) rankings from a specific API and displays them on a webpage. It uses the Dash framework to create a simple layout with an H1 heading and a loading spinner, and it sets up a callback function to update the rankings dynamically. The `update_output` function is triggered when the loading state changes and fetches the rankings data from the API. If successful, it processes and formats the data into HTML elements for display. If an error occurs during the data fetching process, it displays an error message. Finally, it runs the Dash app server in debug mode.

```python
import dash
from dash import html, dcc, Input, Output
import requests

# Initialize Dash app
app = dash.Dash(__name__)

# Set up layout
app.layout = html.Div([
    html.H1("NCAAF Rankings"),
    dcc.Loading(id="loading", children=[html.Div(id="output")])
])

# Callback to fetch and display data
@app.callback(
    Output("output", "children"),
    [Input("loading", "loading_state")]
)
def update_output(loading):
    # Fetch data from API
    url = "https://sportspage-feeds.p.rapidapi.com/rankings"
    querystring = {"league": "NCAAF"}
    headers = {"X-RapidAPI-Key": "1342981e3emshc7a5f249e891318p1a214fjsn76e638f920ee"}
    try:
        response = requests.get(url, headers=headers, params=querystring)
        response.raise_for_status()
        data = response.json()
        # Process and format the data for display
        rankings = [
            html.Div([
                html.H2(rank['name']),
                html.Ul([html.Li(f"{team['rank']}. {team['team']}") for team in rank['rankings']])
            ])
            for rank in data['results']
        ]

        return rankings

    except requests.exceptions.RequestException as e:
        return html.Div(f"Error fetching data: {e}")

# Run the app
if __name__ == '__main__':
    app.run_server(debug=True)
```

OUTPUT:

NCAAF Rankings

AP Poll

- 1. Michigan
- 2. Washington
- 3. Texas
- 4. Georgia
- 5. Alabama
- 6. Florida State
- 6. Oregon
- 8. Missouri
- 9. Mississippi
- 10. Ohio State
- 11. Arizona
- 12. LSU
- 13. Penn State
- 14. Notre Dame
- 15. Oklahoma
- 16. Oklahoma State
- 17. Tennessee
- 18. Kansas State
- 19. Louisville
- 20. Clemson
- 21. NC State
- 22. SMU
- 23. Kansas
- 24. Iowa
- 25. Liberty

Coaches Poll

Coaches Poll

- 1. Michigan
- 2. Washington
- 3. Georgia
- 4. Texas
- 5. Alabama
- 6. Florida State
- 7. Oregon
- 8. Missouri
- 9. Mississippi
- 10. Ohio State
- 11. Arizona
- 12. LSU
- 13. Penn State
- 14. Notre Dame
- 15. Oklahoma
- 16. Oklahoma State
- 17. Tennessee
- 18. Louisville
- 19. Kansas State
- 20. Clemson
- 21. NC State
- 22. Iowa
- 23. Kansas
- 24. SMU
- 25. West Virginia