SUPERIOR UNIVERSITY

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Task: 07

Project Report: NASA API Backend + Flask

1. Importing Required Modules

- The application uses Flask, a Python web framework, to create a web-based interface.
- The `render_template` function allows the application to display an HTML template (`index.html`).
- The `requests` library is used to send HTTP requests to fetch data from NASA's API.

2. Initializing the Flask App

- The application initializes a Flask web server, allowing it to handle incoming requests and display web pages.

3. Defining API Variables

- A NASA API key is used to authenticate requests to NASA's Astronomy Picture of the Day (APOD) API.
- The APOD API URL is specified as the endpoint from which data is fetched.

4. Defining the Main Route

- The root route (`/`) is defined, which is the homepage of the web application.

- The application sends a request to NASA's APOD API, retrieving a response in JSON format.
- The retrieved data contains information about the astronomy picture of the day, including the title, image URL, and explanation.
- This data is then passed to the `index.html` template, where it is displayed in a structured format.

5. Running the Flask App

- The application runs in debug mode, enabling real-time updates and error tracking during development.
- The Flask app starts a local server to serve the webpage when executed.

Summary

This application fetches the Astronomy Picture of the Day (APOD) from NASA's API and displays it on a webpage. It makes an API request, retrieves data in JSON format, and passes the information to an HTML template, which then renders it on the web interface.