Personalized Flask Web Application

Project Overview

This project is a Flask-based web application developed as part of an academic task and further extended creatively. The application accepts a user's name through a URL query parameter, converts it to **UPPERCASE**, and displays it on the browser.

To enhance user engagement, additional features such as a time-based greeting and a random fun/cute fact were implemented. The project was also deployed on **AWS EC2** for demonstration purposes.

Core Features

- Accepts user input via URL query parameter
- Converts the input name to **uppercase**
- Displays output on the browser
- Time-based greeting (Morning / Afternoon / Evening / Night)
- Greeting adjusted to **Indian Standard Time (Asia/Kolkata)**
- Random fun/cute fact to improve user experience
- Clean UI using HTML and CSS

Technologies Used

- **Python 3**
- **Flask**
- **HTML & CSS**
- **AWS EC2 (for deployment demo)**

Project Structure

```
flask_app/
│
├── app.py
├── templates/
│   └── index.html
└── static/
    └── style.css
```

How the Application Works

1. Basic Functionality

The application reads the `name` parameter from the URL using Flask's `request.args`, converts it to uppercase, and displays it.

Example:

```
http://localhost:5000/showname?name=Nitisha
```

Output:

```
NITISHA
```

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2. Time-Based Greeting

The application determines the current time using Indian Standard Time and displays an appropriate greeting: - Good Morning - Good Afternoon - Good Evening - Good Night

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3. User Experience Enhancement

A random fun/cute fact is shown with each request to make the interaction engaging and encourage users to revisit the application.

Running the Application Locally

1. Clone or download the project
2. Navigate to the project folder
3. Install dependencies:

   ```
   pip install flask pytz
   ```

4. Run the application:

   ```
   python app.py
   ```

5. Open in browser:

   ```
   http://127.0.0.1:5000/showname?name=Nitisha
   ```

AWS EC2 Deployment (Summary)

- An EC2 instance was launched using Amazon Linux
- Flask and dependencies were installed on the server
- The application was run using:

```
python3 app.py
```

- The app was accessed using the EC2 public IP
- The instance was **stopped after demonstration** to avoid charges

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Future Enhancements

- Fetching name meanings from reliable and authoritative sources
- Displaying global name uniqueness statistics
- Improved personalization and UI enhancements

Author

Nitisha

Status

✔️Task completed ✔️Creative enhancements implemented ✔️Ready for submission