

Overview of the Deployment Code Components

This script establishes a web application enabling users to upload images and receive predictions via a webpage interface.

1. **Web Server Setup**

Flask, a web framework, is utilized to create a web server. This server hosts the application and remains ready to handle user interactions.

2. **Web Page Design**

The script configures a straightforward webpage featuring an upload button. Users can navigate to this page, select an image from their device, and upload it for a prediction.

3. **Image Upload Handling**

Upon receiving an uploaded image, the script temporarily stores it and processes it to meet the input requirements of the model, similar to how images are handled in the prediction script.

4. **Prediction and Display**

Once processed, the model generates a prediction about the image content (e.g., fire, no fire, or smoke). The result is then displayed on the webpage for the user.

5. **Server Execution**

The web server runs continuously, allowing users to upload images and request predictions. This provides a practical and user-friendly way to interact with the model.