This Flask application allows users to upload files, store them on the server, and request summarization of the uploaded documents. Here I am briefly explained about the code…

1. Imports and Initial Setup:

Flask, CORS: These are imported to create the server and handle cross-origin requests.

OS: manage file directories and paths.

pipeline: Imported to handle the summarization using a pre-trained model.

UPLOAD_FOLDER: The folder where uploaded files will be saved.

2. CORS Setup:

CORS (app): This enables Cross-Origin Resource Sharing, allowing the server to accept requests from other domains, which is useful when building APIs that might be accessed from web clients hosted on different domains.

3. Summarization Pipeline Initialization

summarizer: This initializes a pre-trained summarization model from Hugging Face's library to generate summaries.

4. Routes

/ Route (GET):

- Basic route to test if the server is running. It simply returns a message "Flask server is running!".

/Upload Route (POST):

- Purpose: Handles file uploads.

Process:

Check file in request: Ensures that a file is included in the request.

File validation: Checks if the file is valid extension like pdf, docx, or txt.

Save file: If the file is valid, it is saved to the UPLOAD_FOLDER.

Response: Returns a success message with the filename or an error message if something goes wrong.

/Summarize Route (POST):

Purpose: Summarizes the content of an uploaded file.

1. Extracts the filename from the request data.
2. Summarize content: Uses the pre-trained model to generate a summary of the document content.

6. Server Initialization

 app.run: This starts the Flask server in debug mode and enables threading for handling multiple requests concurrently.

POSTMAN: upload a file and summarize it with your Flask API

Set the Request Method and URL:

Method: Set the method to POST.

URL: Enter your Flask API endpoint URL http://localhost:5000/upload

Select Body Tab:

Add a new key called file with a type of File.

Choose the file you want to upload from your local system.

Send the Request:

Click the Send button. If everything is set up correctly, your Flask API should respond with a success message and the uploaded filename.

Summarize the Uploaded File via Postman

 Set the method to POST.

Enter your Flask API summarization endpoint http://localhost:5000/summarize).