

# Project Documentation

Author: Daksh Deep Saxena

Current Version: v1.4.D

Copyright: © All rights reserved by the author

## Project Overview






Welcome to the documentation for the File Sharing Web Application. This application serves as a platform for users to easily transfer, store, and retrieve files. It is built using the Flask framework in Python, Tailwind CSS, HTML5 and JavaScript.

## Key Features

- File upload and download functionality
- Responsive and user-friendly interface
- About Us page providing information about the project and its technologies
- Custom 404 error page for a better user experience

## Project Structure

```
/project-directory
|-- app.py
|-- templates
|   |-- base.html
|   |-- home.html
|   |-- about.html
|   |-- upload.html
|   |-- document.html
|   |-- 404.html
|-- static
|   |-- style.css
|-- uploads
```

| Name  | Date modified       | Type        |
|---|---------------------|-------------|
|  __pycache__ | 12/17/2023 11:25 AM | File folder |
|  static      | 12/17/2023 4:39 PM  | File folder |
|  templates   | 12/18/2023 12:58 PM | File folder |
|  uploads     | 12/18/2023 1:29 PM  | File folder |
|  app.py      | 12/17/2023 9:45 PM  | Python.File |

(Figure 1: Basic structure of project)

1. app.py: Main application file containing route definitions and configurations.
2. templates: Directory containing HTML templates for different pages.
3. static: Directory for static assets such as stylesheets and Javascript.
4. uploads: Directory to store uploaded files.

## Routes

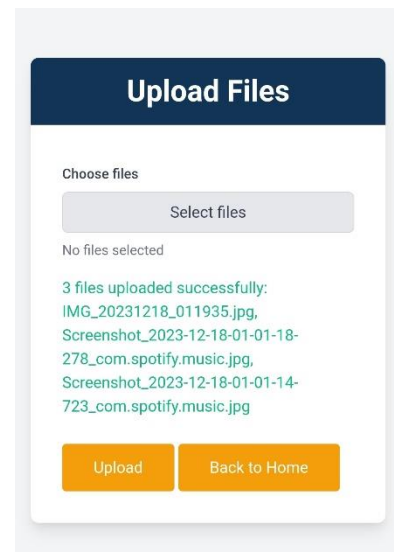
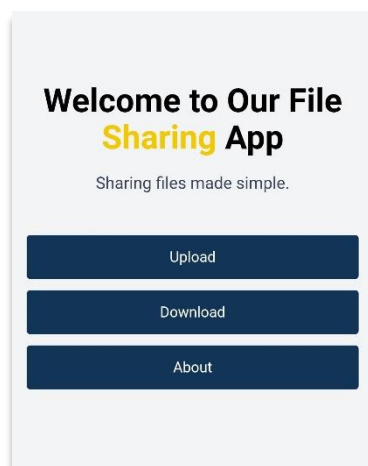
### Home Page (' / ')

Description: The home page welcomes users to the file-sharing app.

Template: home.html

Features:

- Quick links to Upload, Download, and About pages.



(Figure 2: Rendered Design for home page and upload page)

### Upload Page ('/upload')

Description: Allows users to upload files

Template: upload.html

Features:

- Choose File button for selecting multiple files at once.
- Real-time file count update. Do not upload the file if it already exists in server.
- If multiple files are selected including repeat files also. The system only uploads new files and ignores the repeated once.
- Feedback messages on successful upload or errors.

### Document Page ('/document')

Description: Displays a table of uploaded files with details and actions.

Template: document.html

Features:

- Table Fields: Filename, Details (file type and file size) and Actions.
- Download and Preview buttons for each file.

## Download Files (server)

| File Name                             | Details                   | Actions  |
|---------------------------------------|---------------------------|--|
| 15. Advanced JavaScript & JQuery.pptx | Type: pptx Size: 6.56 MB  | <a href="#">Download</a> <a href="#">Preview</a> |
| 16. Security.pptx                     | Type: pptx Size: 9.22 MB  | <a href="#">Download</a> <a href="#">Preview</a> |
| 19. Web Server Administration.pptx    | Type: pptx Size: 13.55 MB | <a href="#">Download</a> <a href="#">Preview</a> |
| @. JavaScript DOM notes.pdf           | Type: pdf Size: 3.37 MB   | <a href="#">Download</a> <a href="#">Preview</a> |
| @. Lecture 4 JavaScript notes.pdf     | Type: pdf Size: 2.21 MB   | <a href="#">Download</a> <a href="#">Preview</a> |

[Back to Home](#)

(Figure 3: Rendered Download Page)

## About Page ('/about')

Description: Provides information about the project, technologies used, and the author.

Template: about.html

### About Us

Welcome to our file-sharing app! This platform was created with the following goals and technologies in mind:

**Technologies Used:**

- Tailwind CSS
- Flask (Python web framework)
- JavaScript
- HTML5

### About the Author:

Meet the mind behind this project! Daksh is a passionate developer with expertise in Webdev and Backend development. Daksh is pursuing Engineering in Information Technology from Manipal University Jaipur (from MAHE).

### Purpose of This Site:

Our mission is to provide a simple and efficient file-sharing platform for users. We believe in reliability, security and fast file transfers.

Author: Daksh Deep Saxena  
Copyright: © 2023

[Back to Home](#)

## Error Handling 404

Description: Custom 404 error page for better user experience.

Template: 404.html

### 404 Not Found

Oops! The page you are looking for might be in another universe.

We are going in the space to search this page. Please try later 🚀

[Back to Home](#)

### **Download Route ('/download/<filename>')**

Description: Allows users to download a specific file..

Feature: Files are downloaded as attachments.

### **Preview Route ('/preview/<filename>')**

Description: Allows users to preview the file (limited file types supported)

Feature: Opens the file in a new tab or window.

## **Dependencies & Prerequisites to run the application (server side):**

### **Python**

Download and install Python from the official Python website.

<https://www.python.org/downloads/>

### **Flask**

Install Flask using the following command:

```
>>> pip install Flask
```

### **Flask-WTF**

Install Flask-WTF using the following command:

```
>>> pip install Flask-WTF
```

### **Werkzeug**

Install Werkzeug using the following command:

```
>>> pip install Werkzeug
```

### **Jinja2**

Install Jinja2 using the following command:

```
>>> pip install Jinja2
```

## Running the Application

As of now, the application is configured to only run on the localserver at port 5000. If connected to a wi-fi, all the devices connected to the same network can access the application by going on <http://ip-address:5000/> while the server runs on the machine (here refer to desktop / laptop).

To do this,

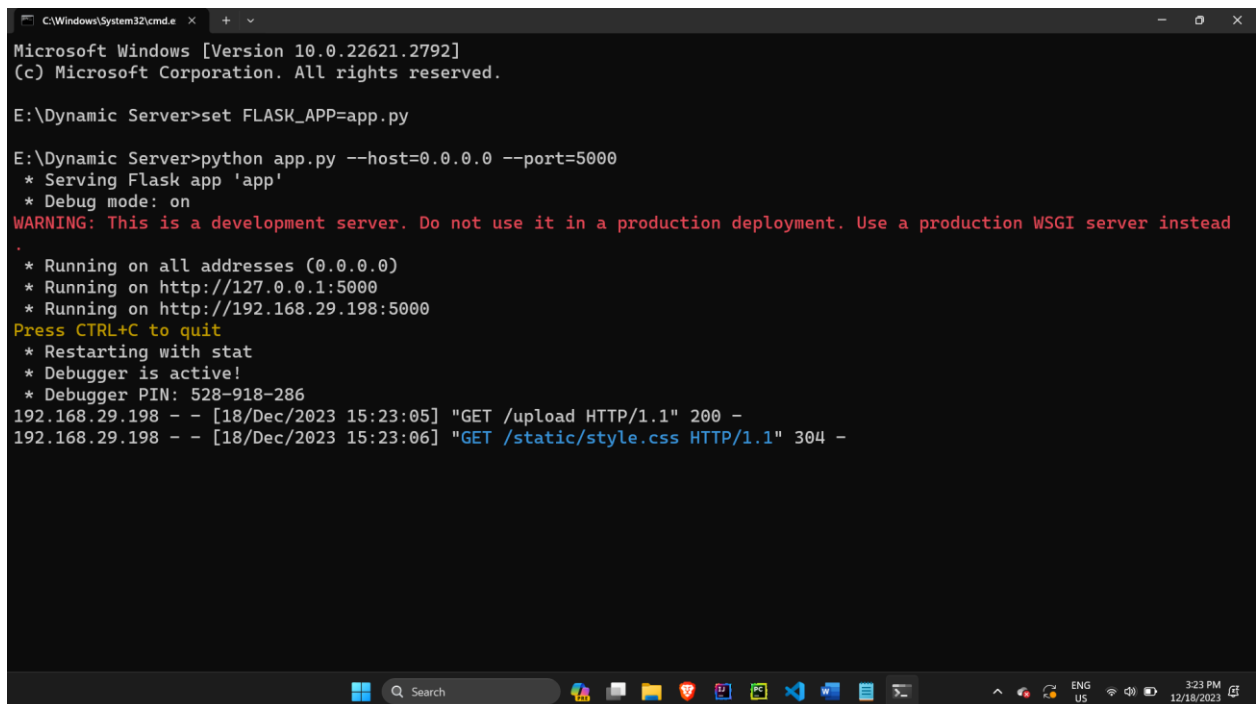
Step1. Go to the directory where all required files, templates, statics are saved.

Step2. Run Command Prompt in that directory.

Step3. Type `>>> set FLASK_APP=app.py`

Step4. Type `>>> python app.py --host=0.0.0.0 --port=5000`

With this a localserver will be established and the site will be hosted on port 5000.



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.22621.2792]
(c) Microsoft Corporation. All rights reserved.

E:\Dynamic Server>set FLASK_APP=app.py

E:\Dynamic Server>python app.py --host=0.0.0.0 --port=5000
* Serving Flask app 'app'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead
* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:5000
* Running on http://192.168.29.198:5000
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 528-918-286
192.168.29.198 - - [18/Dec/2023 15:23:05] "GET /upload HTTP/1.1" 200 -
192.168.29.198 - - [18/Dec/2023 15:23:06] "GET /static/style.css HTTP/1.1" 304 -
```

(Figure: Running the localserver at port 5000)

## Future Feature: File Based Protection System

In an upcoming release, we plan to introduce an enhanced security feature called the "File Based Protection System." With this system, users will have the option to protect their uploaded files by associating them with a username and password during the upload process. If a user chooses to protect a file, the system will prompt for a username and password, storing this information along with the file details in the database.

During the download process, users attempting to download a protected file will be prompted to enter the associated username and password. This ensures an added layer of security, providing controlled access to protected files. Files that are not protected will continue to be downloaded in the usual manner.

We look forward to delivering this feature to enhance the security and user control within our File Sharing Web Application. Stay tuned for updates!

## **Version Nomenclature**

First number in the version denotes the current iteration of Major Release. Second Number denotes the iteration of Minor Release. The third is an alphabet denoting the month of release.

*V1.4.D*

Major Release: 1

Minor Updated Release: 4

Month of publish: December (D)

In case of overriding of month alphabets, proper name will be used.

For publishes in June, July: v1.4.June or v1.4.July will be used.

## **Conclusion**

Thank you for exploring our File Sharing Web Application. If you have any questions or encounter issues, feel free to reach out. We strive to provide a seamless and user-friendly experience for file transfer and storage. Your feedback is valuable to us. Happy sharing!

Author: Daksh Deep Saxena

Copyright: All rights reserved by the author

Publish Year: 2023 (December)

Project Version: v1.4.D

Documentation Version: v1.1.D