TempShare

A file sharing app built using Flask

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Introduction

TempShare is a local file sharing web-app that is built using Python Flask. This web-app does not need global internet access and primarily works within local networks, such as multiple devices connected to a router or a mobile hotspot, neither of which need to have WAN. The app, when started on a host machine, lets other users connect to the session using a QR code, and alternatively, a link.

Once connected, the users can upload files to the session and download files that have been uploaded to the session. The users can also delete files from the session for security. For efficiency and security, the app deletes all files once a session is over (all users disconnected from the session), and new sessions always start fresh.

Features

- Real-time file sharing within local network
- Material Design UI
- QR code generation for easy sharing
- File upload with extension validation
- Real-time updates using WebSocket
- Temporary file storage
- Download functionality for all users
- Share via link or QR code

Tech stack

- Development : VSCode, Git
- Frontend : JavaScript, Jinja2
- Backend : Flask
- File transfer : WebSockets, Flask-SocketIO
- Styling : CSS, Google Material Icons
- APIs : Pillow, QRCode, Python-EngineIO

System Requirements

1. Hardware Requirements :

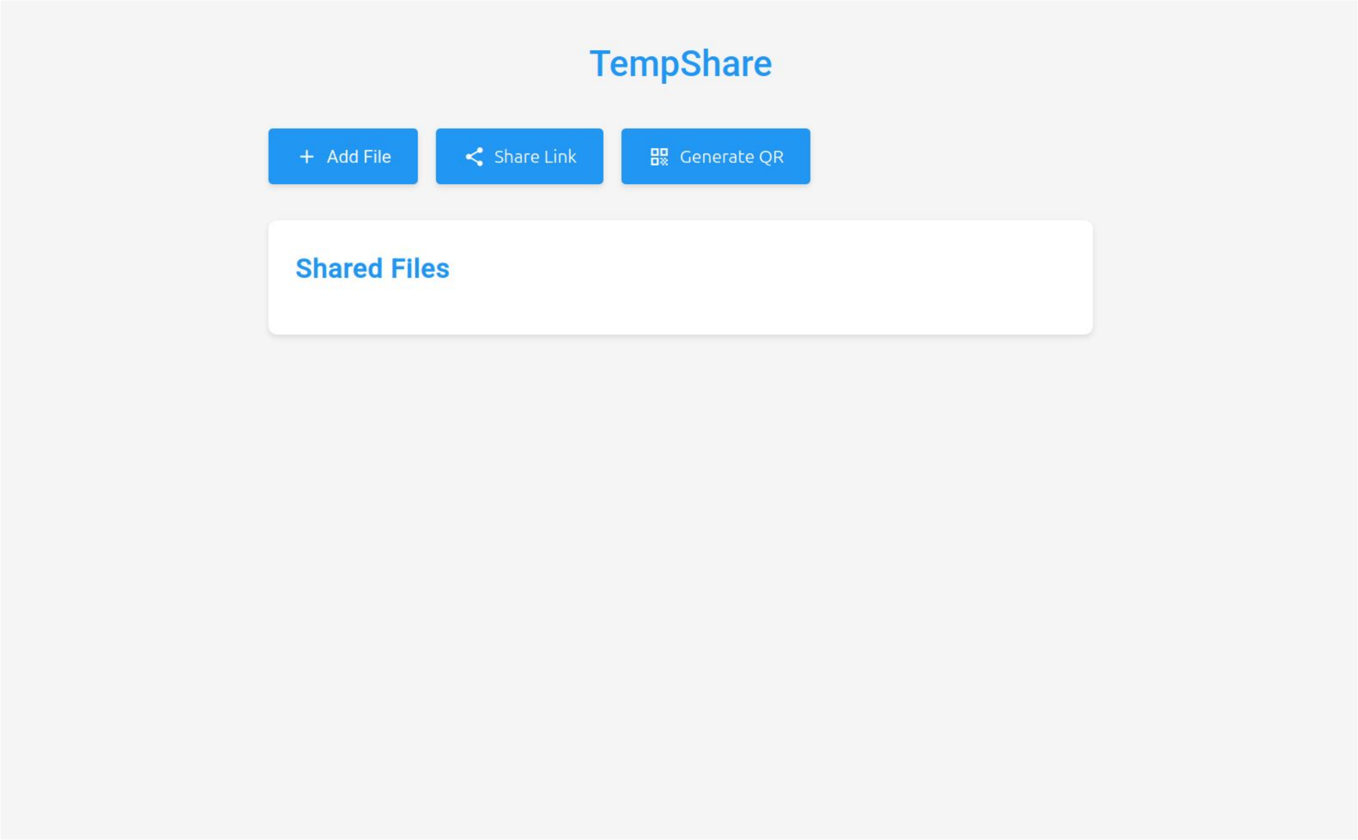
- Processor : Any 64-bit x86 or ARM CPU with at-least 2 cores running at at-least 1 GHz
- RAM : 4 Gigabytes or higher
- Storage : 10 Gigabytes or more free (For everything used to build the project as well as the project itself)
- Network : Any device that can behave like a router (Internet plan/package not needed)

System Requirements

2. Software Requirements :

- Operating System : Any OS that supports Python, JS, HTML and CSS (Linux, Windows, MacOS, Chrome OS and Android)
- Code Editor : Any IDE that can interpret or compile Python code (VSCode and IDLE)
- Version Control : Any version of Git higher than 2.0.0

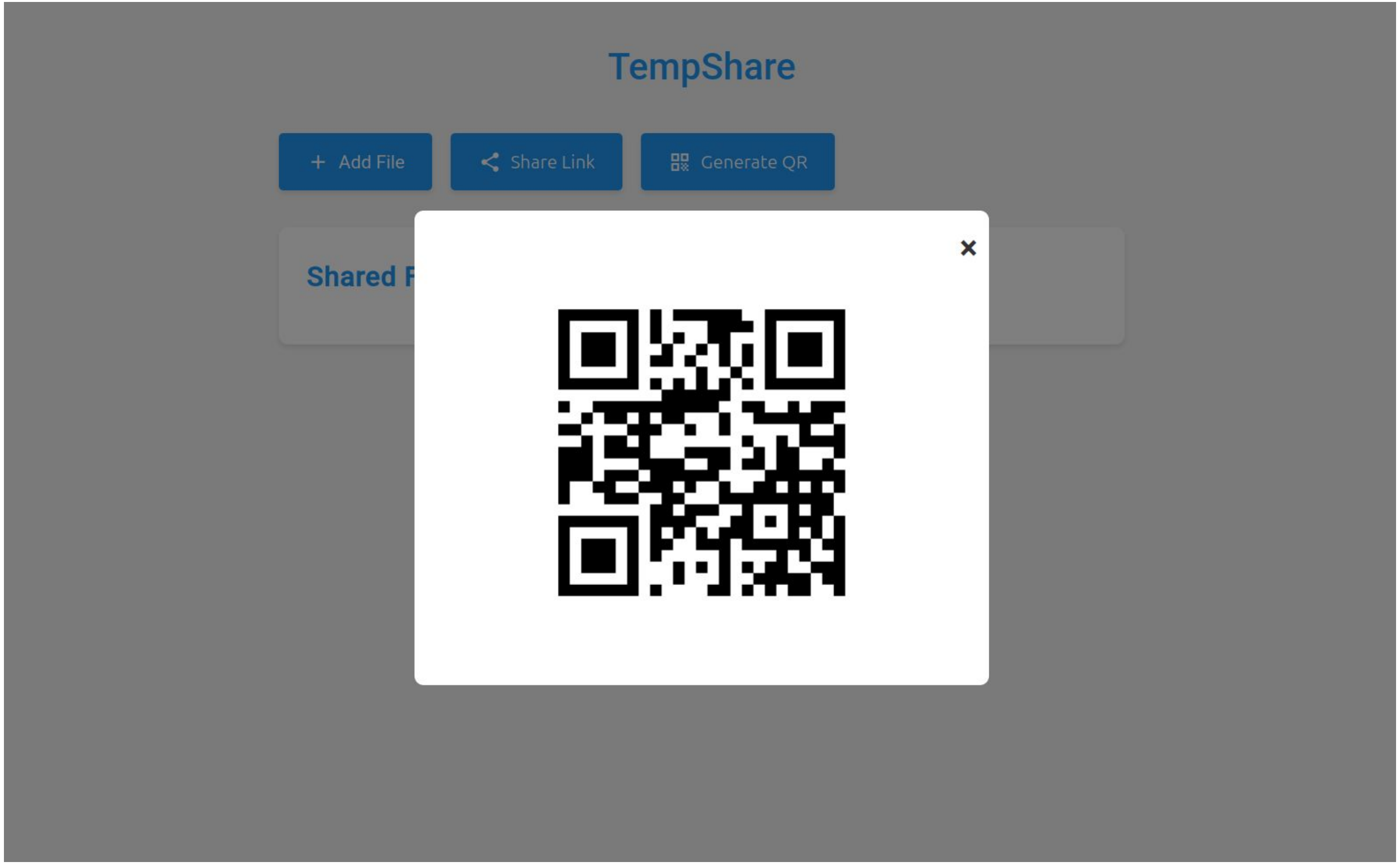
Screenshots



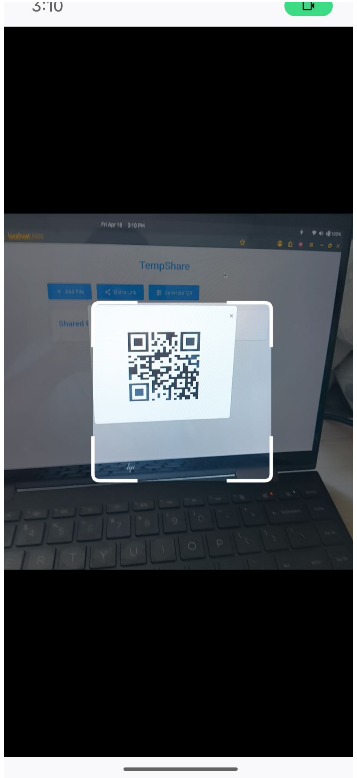
TempShare

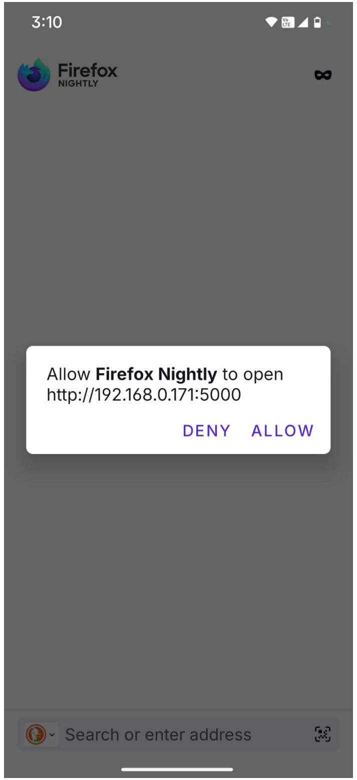
Shared Files

Screenshots

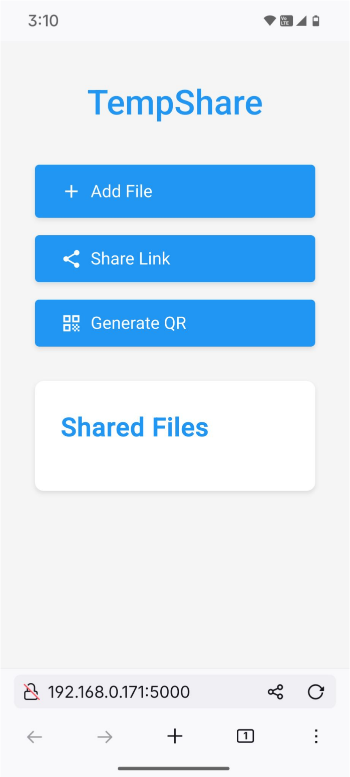


Screenshots

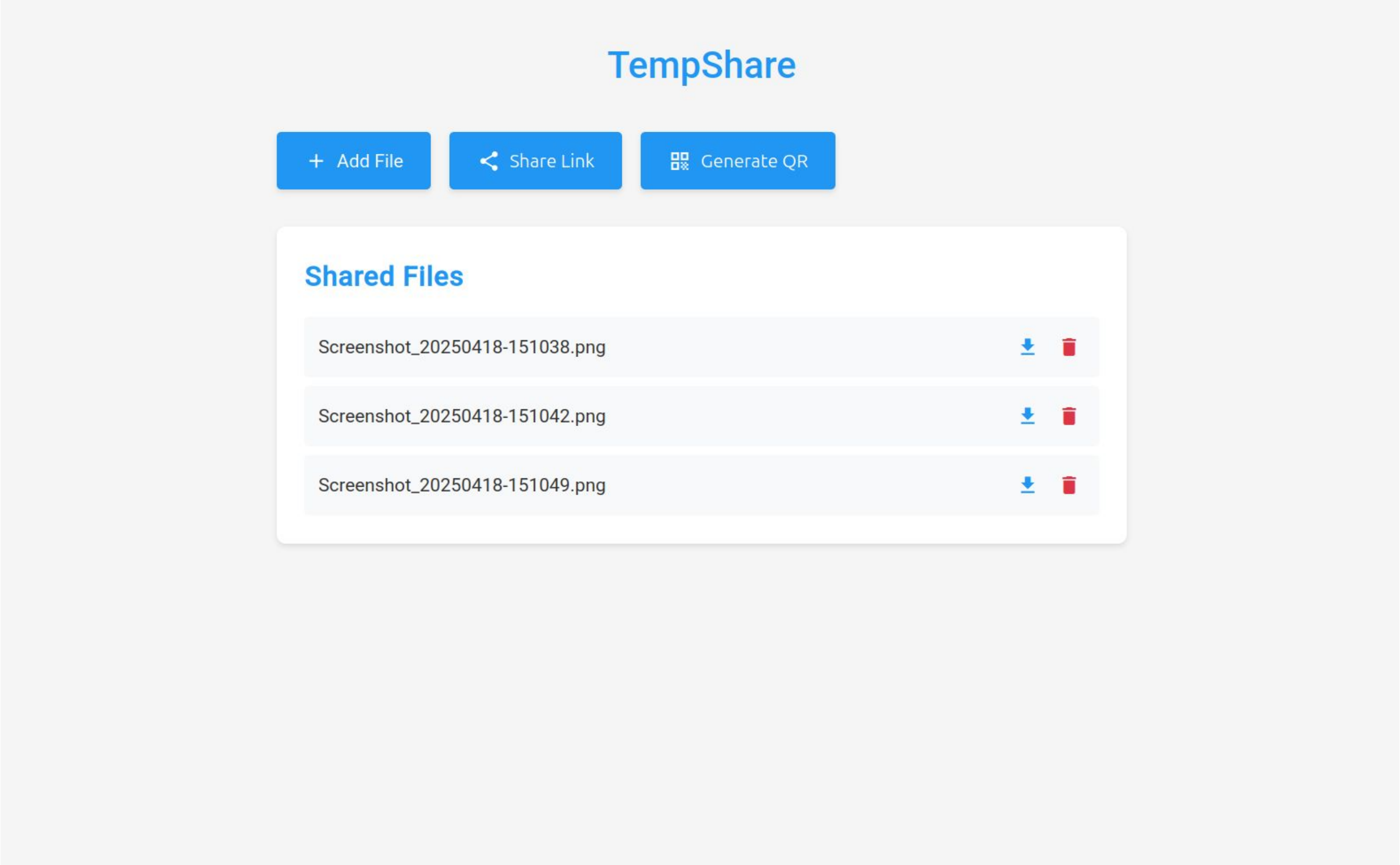




Allow **Firefox Nightly** to open http://192.168.0.171:5000



Screenshots



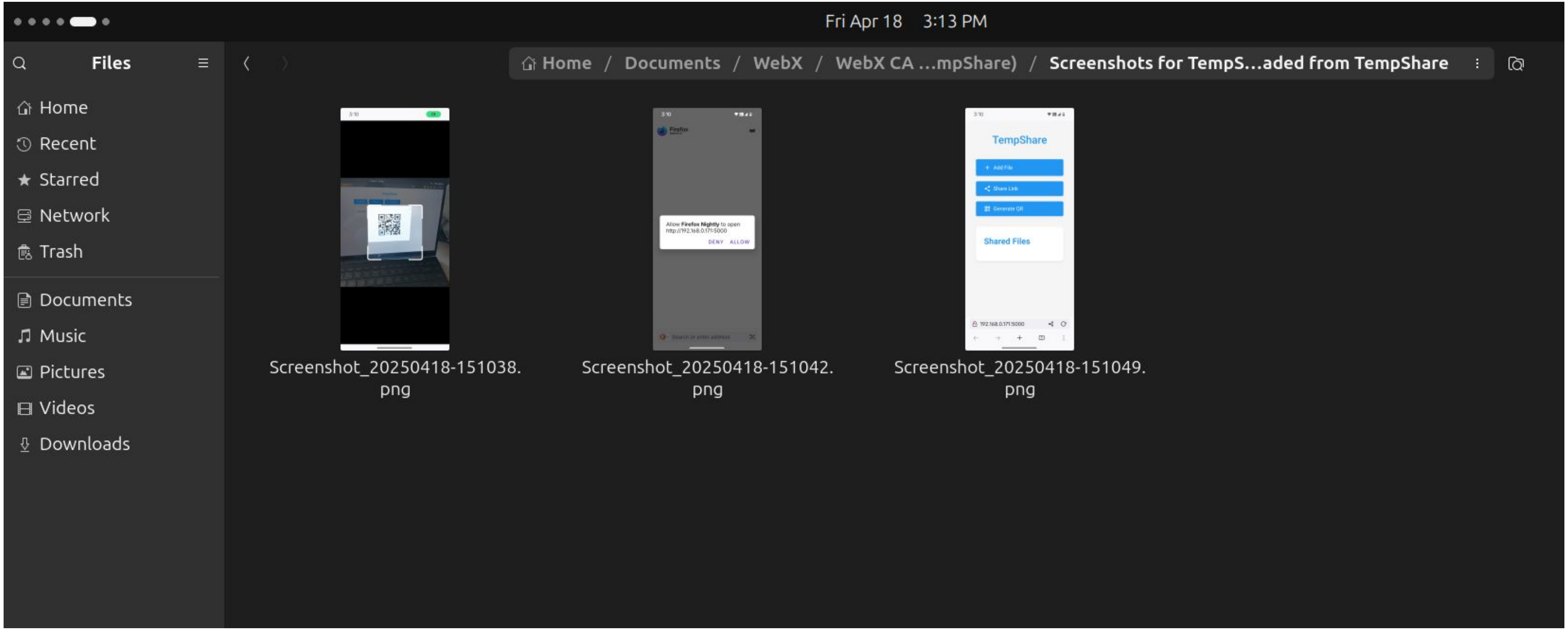
Shared Files

Screenshot_20250418-151038.png

Screenshot_20250418-151042.png

Screenshot_20250418-151049.png

Screenshots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Files
Home
Recent
Starred
Network
Trash
Documents
Music
Pictures
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Home / Documents / WebX / WebX CA ...mpShare) / Screenshots for TempS...aded from TempShare
Allow Firefox Nightly to open http://192.168.0.171:5000
DENY ALLOW
TempShare
Add File
Share Link
Generate QR
Shared Files
Screenshot_20250418-151038.png
Screenshot_20250418-151042.png
Screenshot_20250418-151049.png

Future scope

While TempShare effectively facilitates real-time file sharing over a local network, there are several potential enhancements that could expand its functionality and improve user experience. Implementing session tracking with user connection counts would enable automatic file cleanup when the last user disconnects, aligning the system behavior with its intended temporary nature.

Introducing time-based expiration for uploaded files can further automate file life-cycle management. Enhancing the front-end with features such as drag-and-drop file uploads and a more intuitive interface could improve usability. Additionally, incorporating password protection or authentication mechanisms would increase security for sensitive transfers. Finally, an administrative dashboard displaying file statistics, user activity, or logs could provide greater control and insight into system usage.

Conclusion

TempShare simplifies quick, local file sharing without the need for cables through a well integrated tech stack consisting of Flask, Jinja2, JavaScript, WebSockets, Pillow, and QRCode.

The setup involves installing essential tools like Python, pip, Flask, ensuring a robust development environment.

With a simple, minimal and responsive graphical user interface and fast real-time updates, TempShare streamlines the process of sharing files between devices located nearby without the need for cables.

References

1. Flask : https://flask.palletsprojects.com/en/stable/
2. JavaScript : https://developer.mozilla.org/en-US/docs/Web/JavaScript

Thank you