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Soft Dev
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<u>Our Project</u>:
Our project is called **Ducky Drive**. Our idea is to implement a copy of Google Drive, using the **lab machines** as the storage backend. This will enable easy access to your files on the lab machines, and functionality like uploading, downloading, viewing, editing, deleting, and creating files will make **file management as abstract as possible.**
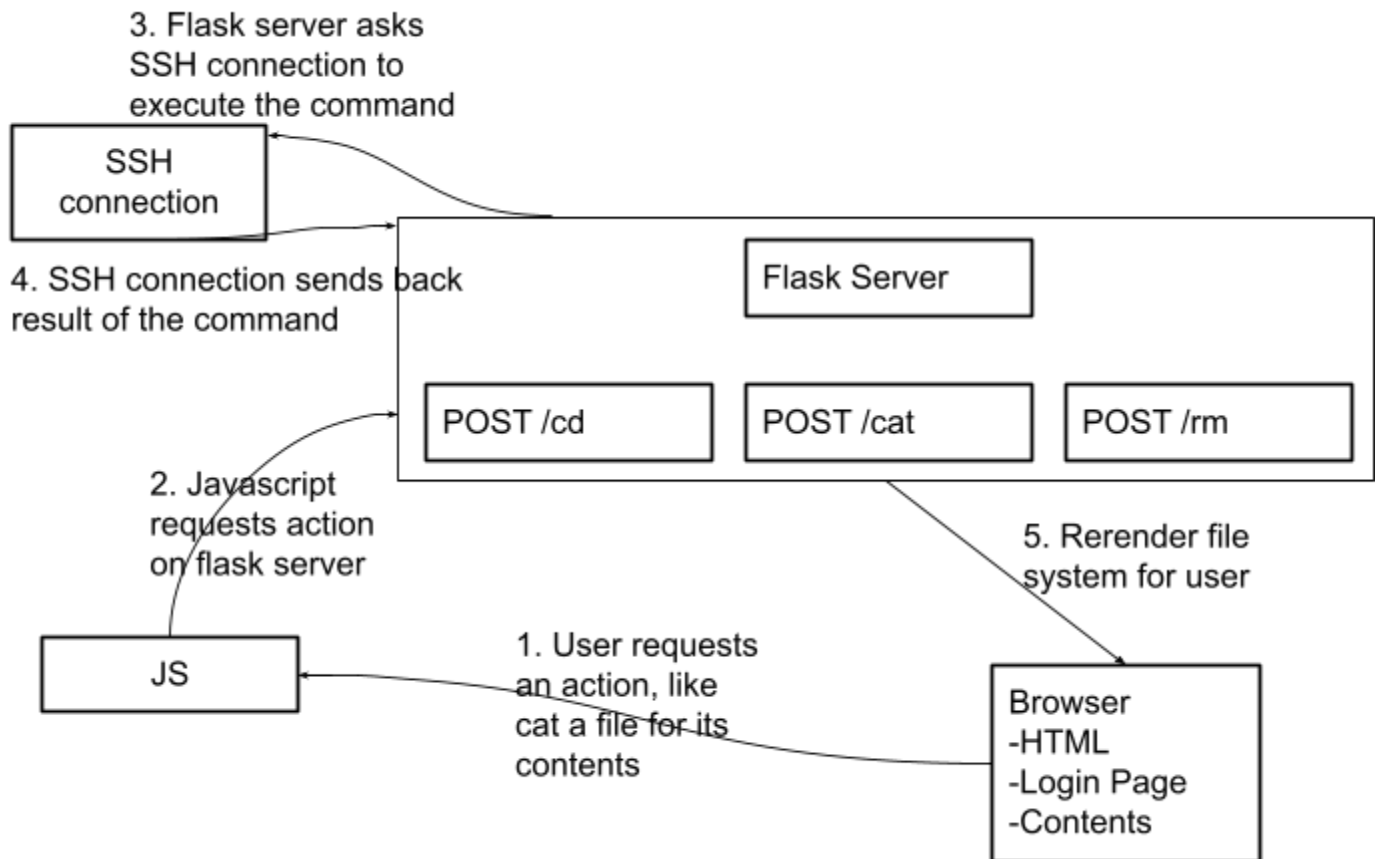
<u>Program List</u>

1. **__init__.py** - Basic driver with Flask. Create routes that allow authenticated users to perform different actions on their file system.

2. Fileman.py - handles opening ssh connection and sending commands to the ssh server. Communicates with __init__.py to perform actions.

3. static/css/ - Formatting that FEF doesn't take care of

4. static/js/ - Act as middleware to query flask server routes when a user demands it on the front-end, such as when a button is clicked.

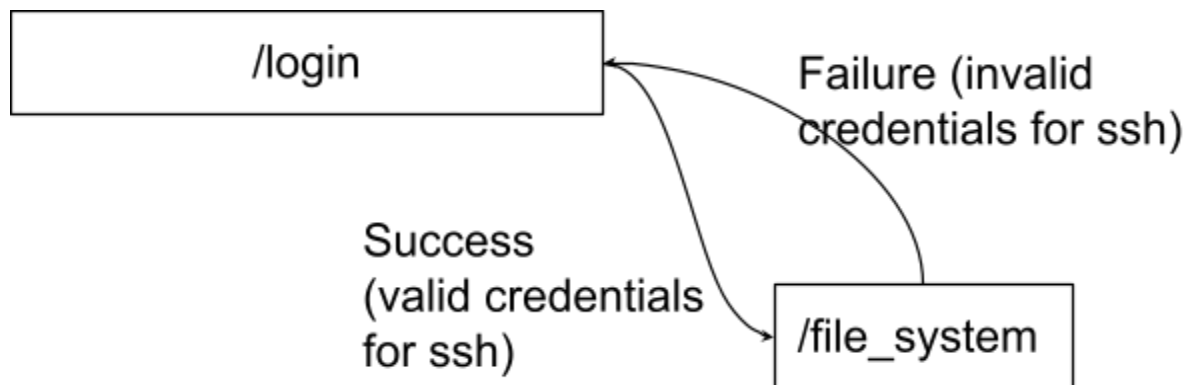5. templates/ - our HTML files for the respective pages we need

<u>Database Organization</u>

No database required! Storage is managed on the lab machines, and no user information is stored.

Component Map

3. Flask server asks
SSH connection to
execute the command

SSH
connection

4. SSH connection sends back
result of the command

Flask Server

POST /cd   POST /cat   POST /rm

2. Javascript
requests action
on flask server

5. Rerender file
system for user

JS

1. User requests
an action, like
cat a file for its
contents

Browser
-HTML
-Login Page
-Contents

Site Map (Front-end)

/login

Failure (invalid
credentials for ssh)

Success
(valid credentials
for ssh)

/file_system

Assignments to Members
Marc:
   - Uploading files
Kevin:
   - File manipulation
   - Directory manipulation
Ian:
   - Downloading files

- droplet
Hui:
  - Front-end

MVP:
  - Upload files from local computer to server
  - Download from server to local computer
  - File manipulation
      - Viewing
      - Moving
      - Renaming
      - Deleting
      - Creating
      - Editing
  - Directory manipulation
      - Renaming
      - Deleting
      - Creating

Stretch Goals:
  ● Web based ssh'ed terminal for power users who need more
    functionality
  ● Search filesystem for a particular file
  ● Previewing different file types
      ○ pdfs
      ○ images
  ● Sharing files with other users
  ● Advanced filtering
      ○ By extension
      ○ By date modified

API Section:
No APIs needed

FEF Features Why and How?
Why:
  ● Bootstrap is easier to work with & looks cleaner.
  ● Bootstrap containers improve responsiveness and user experience
  ● Foundation is difficult to work with
How:
  ● Bootstrap modals can help with previewing and editing files
  ● Mobile responsiveness