Donut Drawing

Team donut_time

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Description

       A layer-based web drawing program similar to paint.net or Photoshop. To draw, users will have several tools like a pencil, paintbrush, paint bucket, eraser, and more. Users may also save their work by either downloading it or saving it locally in a database that is connected to their account.

Components/Features

- Python/Flask/Jinja2
- Javascript
    - We will be using canvas instead of svg because we will not be utilizing the DOM when we create the drawing tools.
    - Tools: We will have the most basics features of a paint program and will add additional features later
        - Basic: Paintbrush, Pencil, Paint bucket, Erase, Shapes, Crop, Select, Saving
        - Additional: Layers, Filters, Blur/Smudge tool
- Bootstrap
    - Easy to use, has a variety of templates, and we are more experienced in Bootstrap
- SQL Database
    - Stores all "saved" images' paths
    - Account system

Database Schema

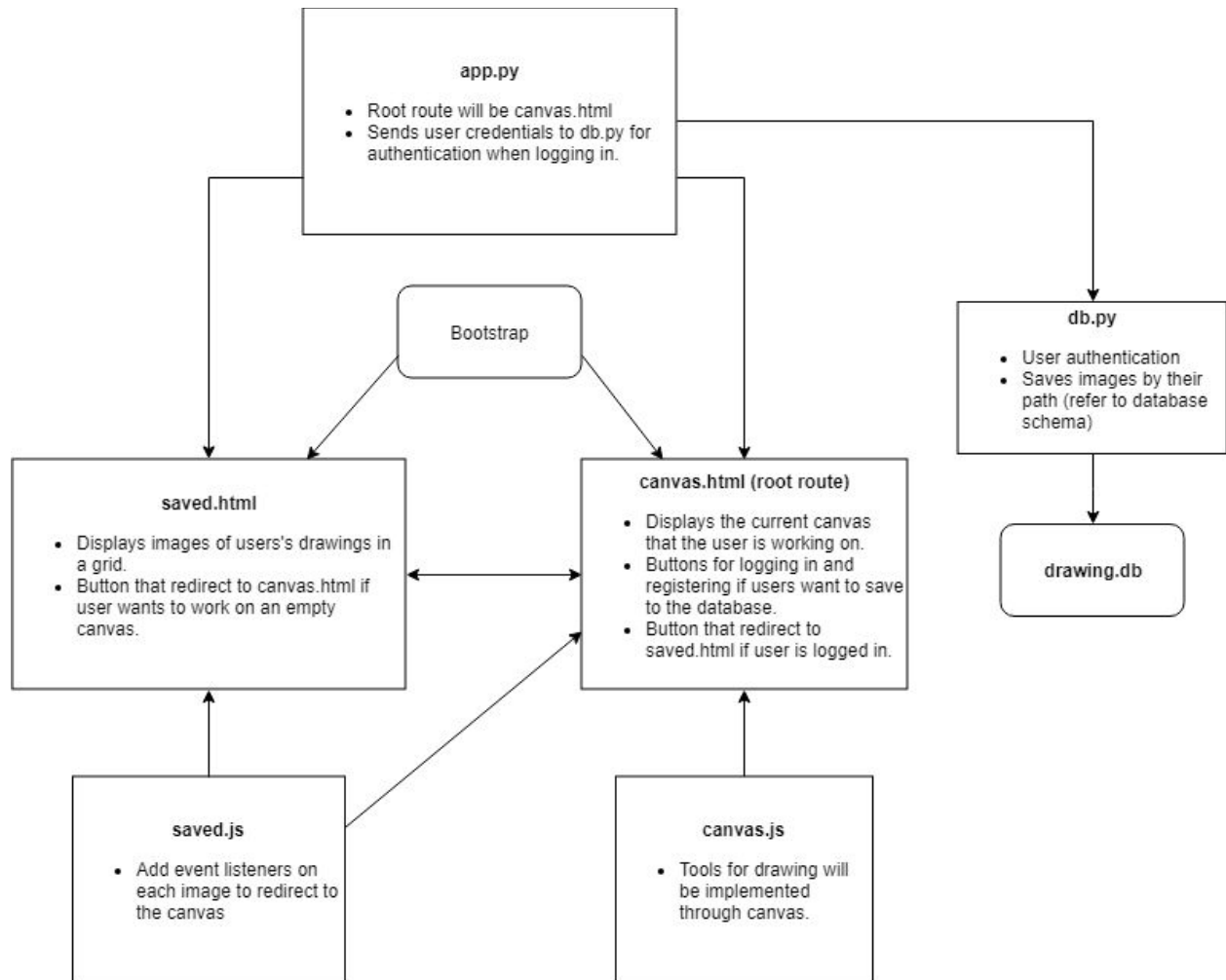Users

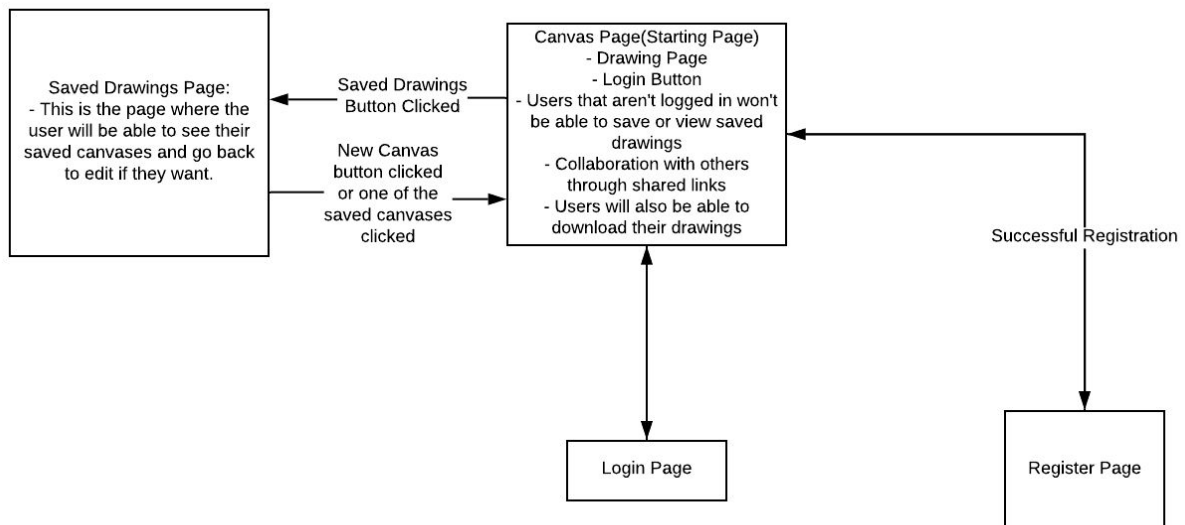| Username PRIMARY	Password

Images

User	Path to image
the person who owns the image	path to the image they saved ex: "~data/imgs/user/1.png" the images will be stored in the root of the flask app

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Component Map

app.py
- Root route will be canvas.html
- Sends user credentials to db.py for authentication when logging in.

Bootstrap

db.py
- User authentication
- Saves images by their path (refer to database schema)

drawing.db

saved.html
- Displays images of users's drawings in a grid.
- Button that redirect to canvas.html if user wants to work on an empty canvas.

canvas.html (root route)
- Displays the current canvas that the user is working on.
- Buttons for logging in and registering if users want to save to the database.
- Button that redirect to saved.html if user is logged in.

saved.js
- Add event listeners on each image to redirect to the canvas

canvas.js
- Tools for drawing will be implemented through canvas.

Site Map

Saved Drawings Page:
- This is the page where the user will be able to see their saved canvases and go back to edit if they want.

Saved Drawings Button Clicked

New Canvas button clicked or one of the saved canvases clicked

Canvas Page(Starting Page)
- Drawing Page
- Login Button
- Users that aren't logged in won't be able to save or view saved drawings
- Collaboration with others through shared links
- Users will also be able to download their drawings

Successful Registration

Login Page

Register Page

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Task Assignment

Kenny Li (Project Manager): Facilitate communication, assist others by navigating, database

Johnson Li: Create basic drawing features of program

Jiayang Chen: Helping connect the JS and Python, assist with drawing tools

Dennis Chen: HTML pages, CSS styling, Python routing, assist with drawing tools

Timeline

05/10 F: feedback round for design doc

05/13 M: review feedback

05/14 T - 05/17 F: create drawing tools (paintbrush, pencil, paint bucket, erase, shapes, crop, select)

05/20 M - 05/21 T: create database and implement a way to download files locally or upload to database

05/22 W - 05/24 F: css styling (make it look real nice!!!)

05/27 M - 05/28 T: implement additional features (layers, filters, blur/smudge tool)

05/29 W - 05/31 F: bug fixes and finalization