# 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. They will also be able to collaborate with others on drawings in real time. 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, Real-time collaboration, Filters, Blur/Smudge tool, Chat box
- Bootstrap
  - o Easy to use, has a variety of templates, and we are more experienced in Bootstrap
- SOL Database
  - Stores all "saved" images' paths
  - Account system

#### **Database Schema**

Users

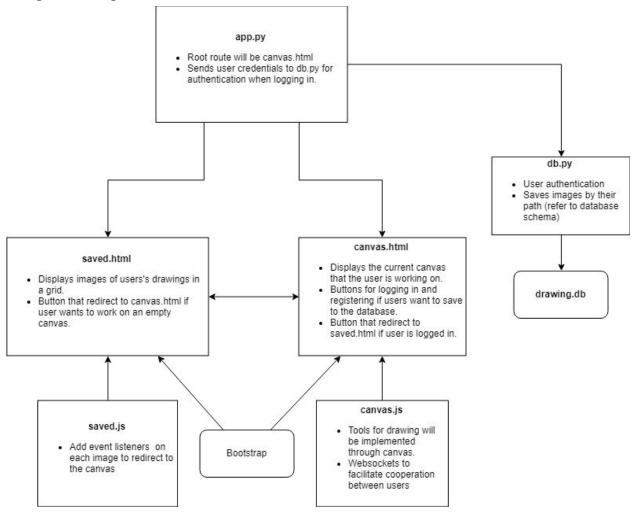
Username PRIMARY	Password
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#### **Images**

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

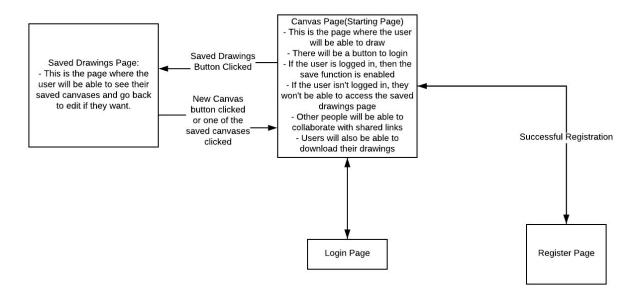
# Donut Drawing

### **Component Map**



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### Site Map



### **Task Assignment**

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

Johnson Li: Create basic drawing features of program

Jiayang Chen: Implements websockets, 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)

 $05/20~\mathrm{M}$  -  $05/21~\mathrm{T}$ : create database and implement a way to download files locally or upload to database

05/22 W - 05/24 F: implement websockets to allow for cooperation between users on a drawing

05/27 M - 05/28 T: css styling (make it look real nice!!!)

05/29 W - 05/31 F: implement additional features (layers, filters, blur/smudge tool, chat box)