Team Babushka
By Jawad Kadir, Leo Liu (PM), Arif Roktim, and Michael Ruvinshteyn

Design Doc: Draw My Thing

This is a multiplayer game. One of the players will be chosen to be the drawer. This player will be shown a secret word and must draw a picture based on the word. The other players will race to guess what the secret word is. The other players will be given points based on how long it took them to guess the word.

Components:

Server side:

- Generate random words or phrases for the drawing
- Accounts (or maybe guest accounts)
  - Will use sqlite3 for database
- Game lobbies (public/private) connected by websockets capable of sending image data and/or text
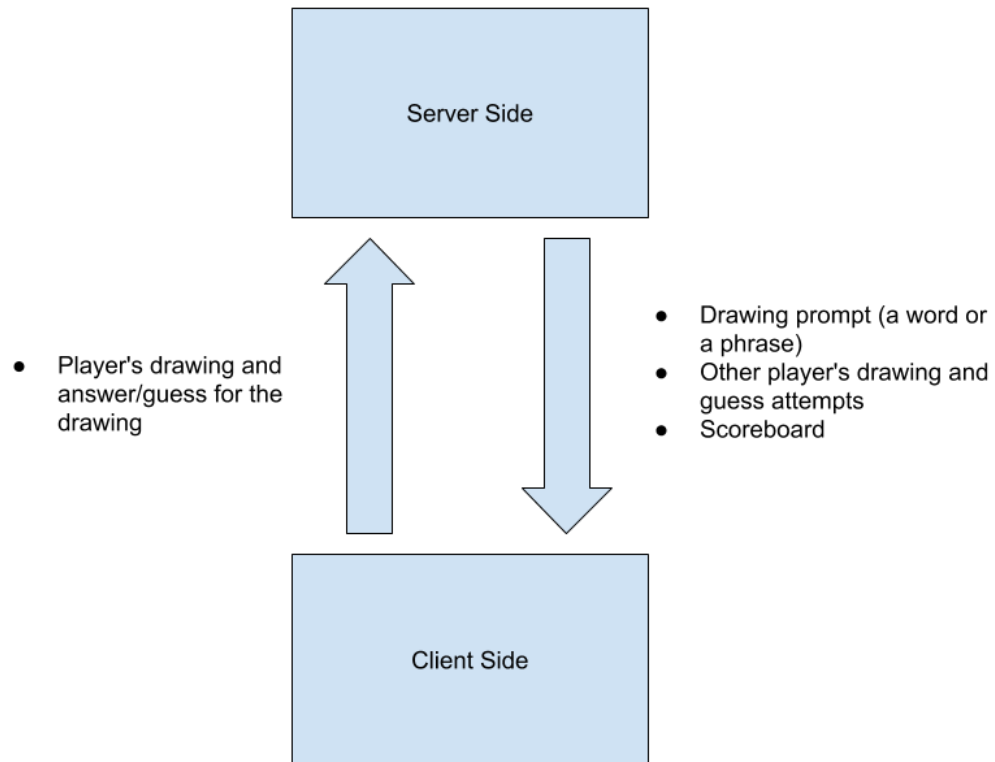- Keep track of points each player has
- Cycle turns between players

Client side:

- Canvas
  - We don't need any of the complexity of svg. We just need to manipulate pixels. Remembering what we've drawn in terms of objects (i.e., DOM elements) isn't very necessary.
  - Canvas would be much easier to deal with if we decide to add features such as different brushes or a spray can tool as these are poorly suited for svg
  - Easier to use with websockets. If we implement canvas drawing in the following fashion (pseudocode):
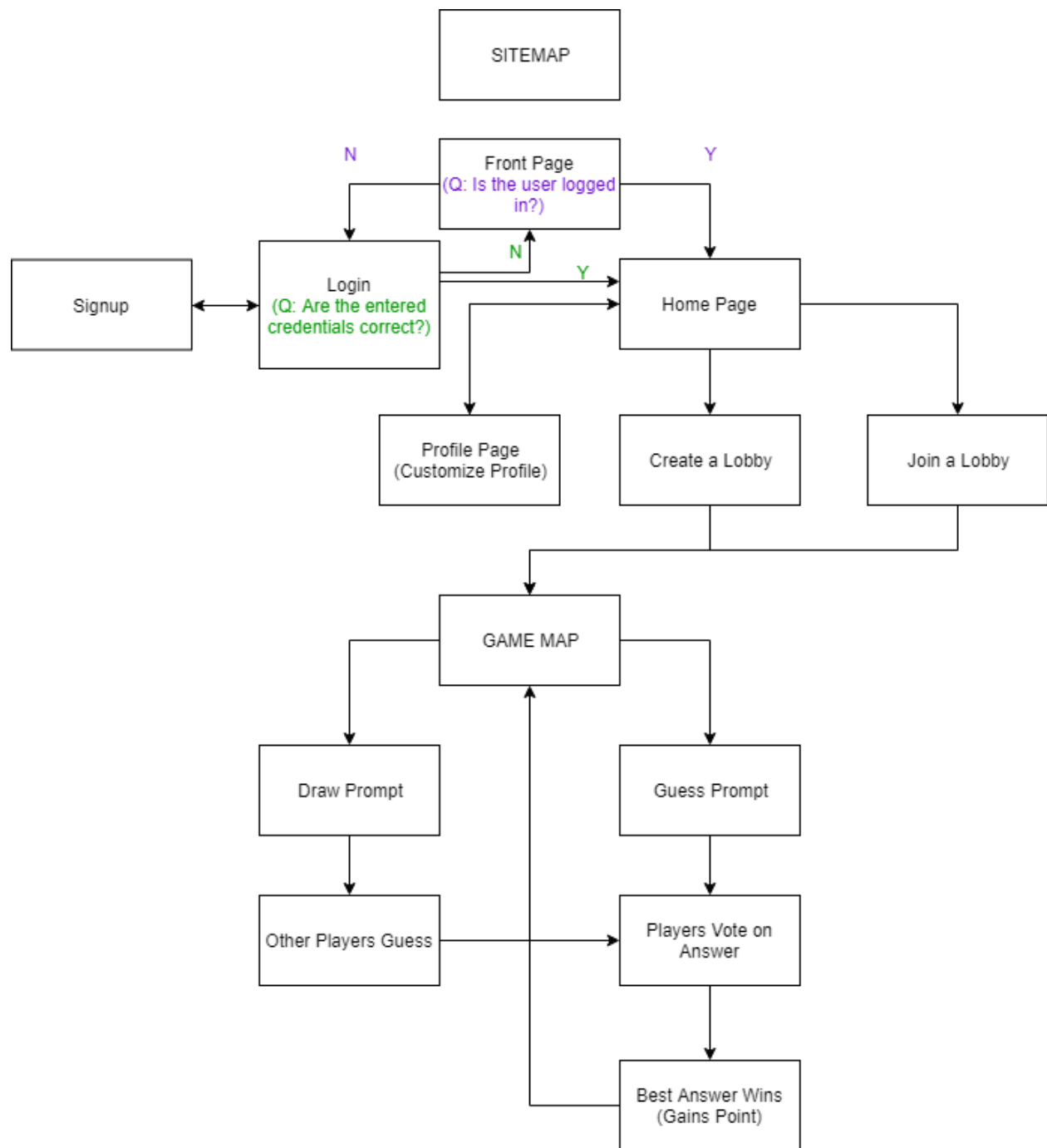   ```
    while(mouse held down){ arc(mouse.x, mouse.y, 10, 0, 2 * PI) }
    ```
    we can simply send the other clients the `arc()` call
- Chatbox for submitting guesses and seeing guesses of other players

**Component Map**

Server Side

Client Side

- Player's drawing and answer/guess for the drawing

- Drawing prompt (a word or a phrase)
- Other player's drawing and guess attempts
- Scoreboard

**Site Map**

SITEMAP

Front Page
(Q: Is the user logged in?)

N     Y

Signup

Login
(Q: Are the entered credentials correct?)

N

Y

Home Page

Profile Page
(Customize Profile)

Create a Lobby

Join a Lobby

GAME MAP

Draw Prompt

Guess Prompt

Other Players Guess

Players Vote on Answer

Best Answer Wins
(Gains Point)

**Database Schema**

<center>users</center>

| Account Name (Primary Key) | Hashed Password |
| --- | --- |
| бабушка | 7b412138d3f39f5cea409507706b3de2 |

<center>games</center>

| Game ID (Primary Key) | Current Round | Current Artist (Whose image is being viewed) |
| --- | --- | --- |
| 25487623 | 3 | бабушка |

<center>Individual Game (Name of table = game ID)</center>

| Players | Points | Done With Turn | Image URL | Prompt |
| --- | --- | --- | --- | --- |
| бабушка | 1337 | 0 | | Dog |
| бабушка1 | 7331 | 0 | | Cat |
| бабушка2 | 3137 | 1 | | Octopus |

**Task Delegations**

бабушка:
- Morale boost

Leo (Project Manager):
- Manage Project; front-end design

Arif:
- Websocket connections
- Basic drawing (allows user to draw lines on the canvas)

Michael:
- Account management/database creation

Jawad:
- Backend transitions (i.e. routes)
- Game mechanics