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Team 15 Project Plan

Introduction and Choice of Tools:

Our team plans to model our program after the example shown in class, powderwireless.net. We will begin by completing all of the requirements for the Minimum Viable Product (MVP), and then add additional features if time permits. For collaboration, our team will use Zoom and iMessage to communicate with one another, and GitHub for handling tasks and sharing code. After researching the available options, our team has currently decided on using Python Flask for the backend, ReactJS for the frontend, MongoDB as the database and Google Cloud for hosting, but these are subject to change when we officially begin working on the program.

Program Features and Project Plan:

The user management section will be largely guided by the requirements and contain at least all of the following:

1. A sign-in window where users can sign in by entering their userid and password. Additionally, if the user clicks on the New User option, the window will display a pop-up that allows them to enter a new userid and password, creating an account.
2. An area where users can create new projects by providing: project name, description, and ID.
3. An area where users can choose to open existing projects.
4. A database to store user information and project information.
5. An API to access information stored in the database.
6. Security features to encrypt the userid and password.

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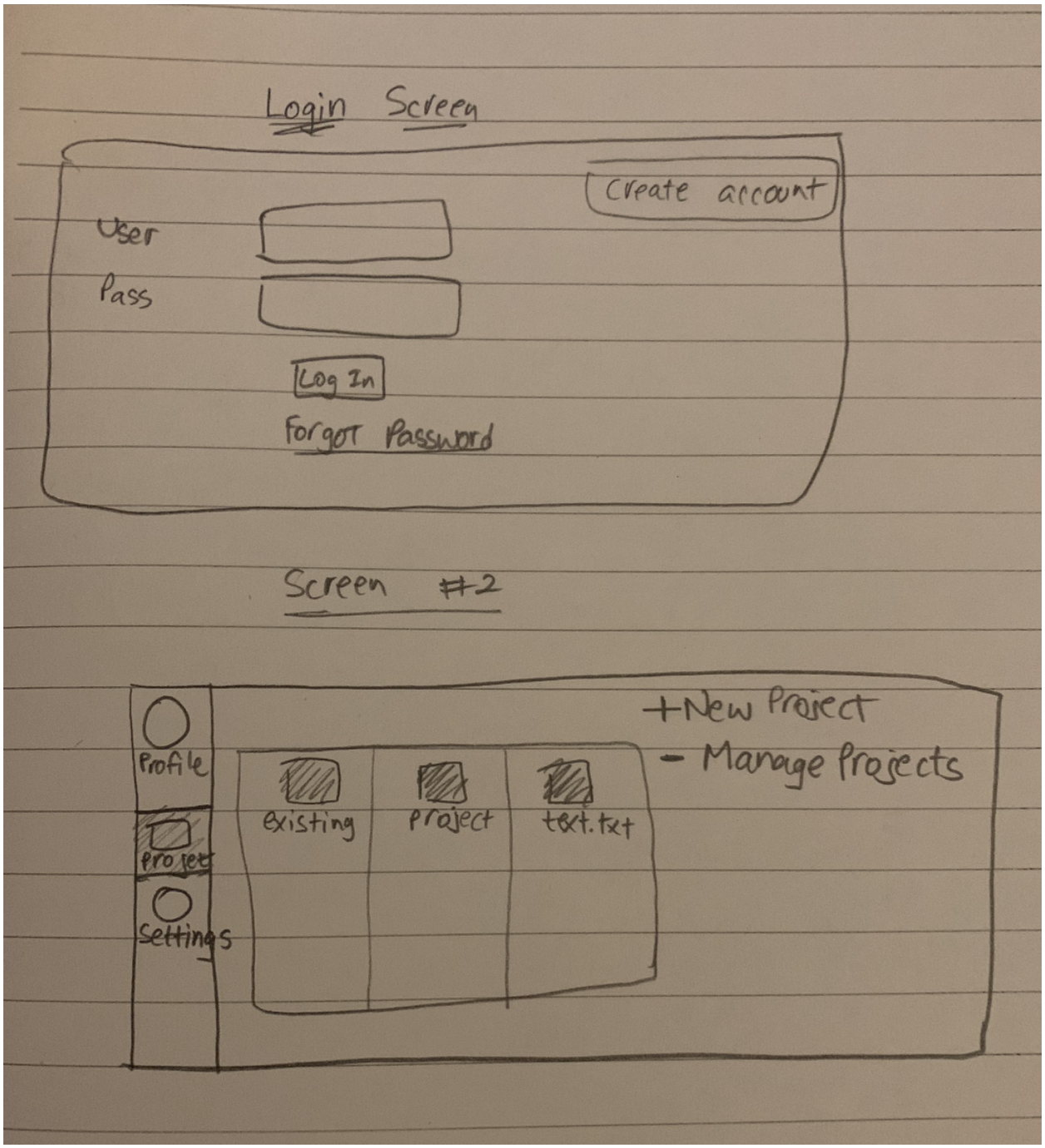
Simplified functional sketches are as follows:



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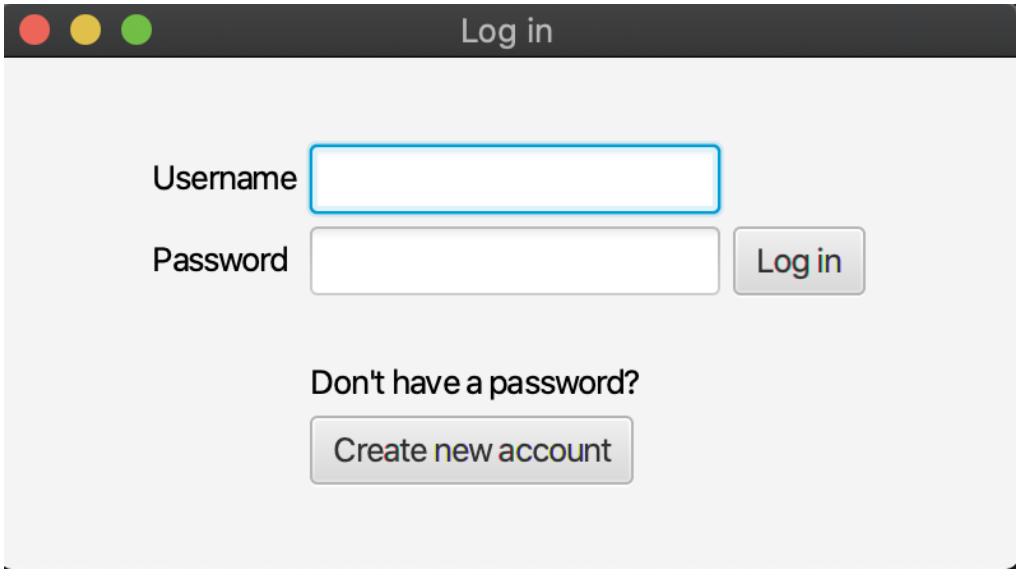

The areas where users can create new projects and open existing ones will be similar in function to the sign-in window shown above. Both will have the user type necessary information in text boxes or have them click on buttons to navigate the interface.

Our userid and password encryption will act similar to Lab 2: we will alter characters by some formula before storing all information in our database.

Our resource management section will also use the requirements as a foundation. We will include at least all of the following:

1. A display area which shows the capacity of all items.
2. A display area which shows the availability of all items.
3. A database where the item information can be stored and retrieved from.
4. A display area which shows how many units of each item the user wants to checkout and later check in.

Similar to the user login window, users will enter quantitative information in text boxes, and

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navigate by clicking buttons.

Our data access section will use the requirements as a basis as well. It will contain at least all of the following;

1. An area that displays a list of at least 10 datasets available.
2. An option to download one of the listed datasets as a zip file.

Additional features:

After fulfilling all of the minimum requirements, we are considering adding some extra features to improve the quality of our program. Some ideas that we have come up with (but are not limited to) include:

1. Sound effects (where appropriate)
2. “Remember me” option for signing in
3. Delete account, including all projects
4. Overall improved graphics and layout