Scrambler Password

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Task & Purpose

Task:

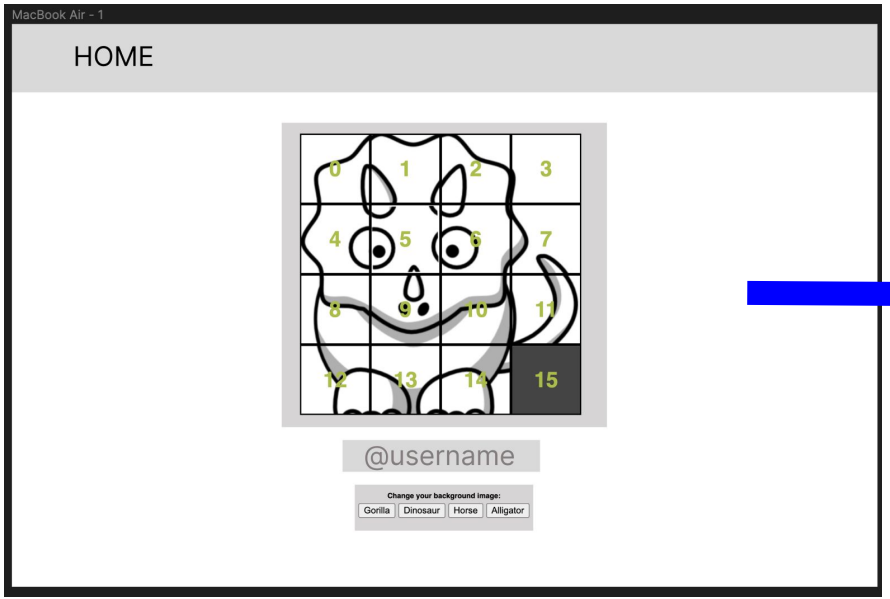
From the given list of applications, choose one and work with an assigned team of 4 to design and deliver the application.

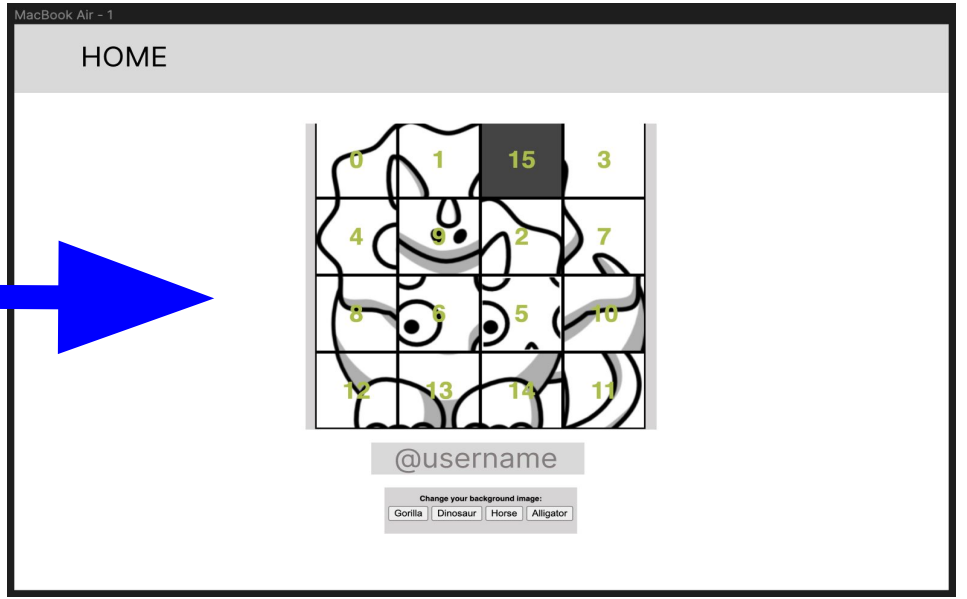
We chose to build an authentication system called “Scrambler Password.” The purpose of the web application is to create a new way of user authentication. The system will allow a user to choose a single image out of an available 4, which will be a starting point for their new password. They will then scramble the image using any sequence they desire. Upon returning to the application, the user will have to choose the same image, and scramble it in the same sequence as when they created it. Upon successful “scrambling” the user will be authenticated and redirected to the application.

Purpose:

The purpose of this assignment is to build an authentication system for a web application. Through development we will demonstrate our understanding of application design, the agile methodology and software implementation.

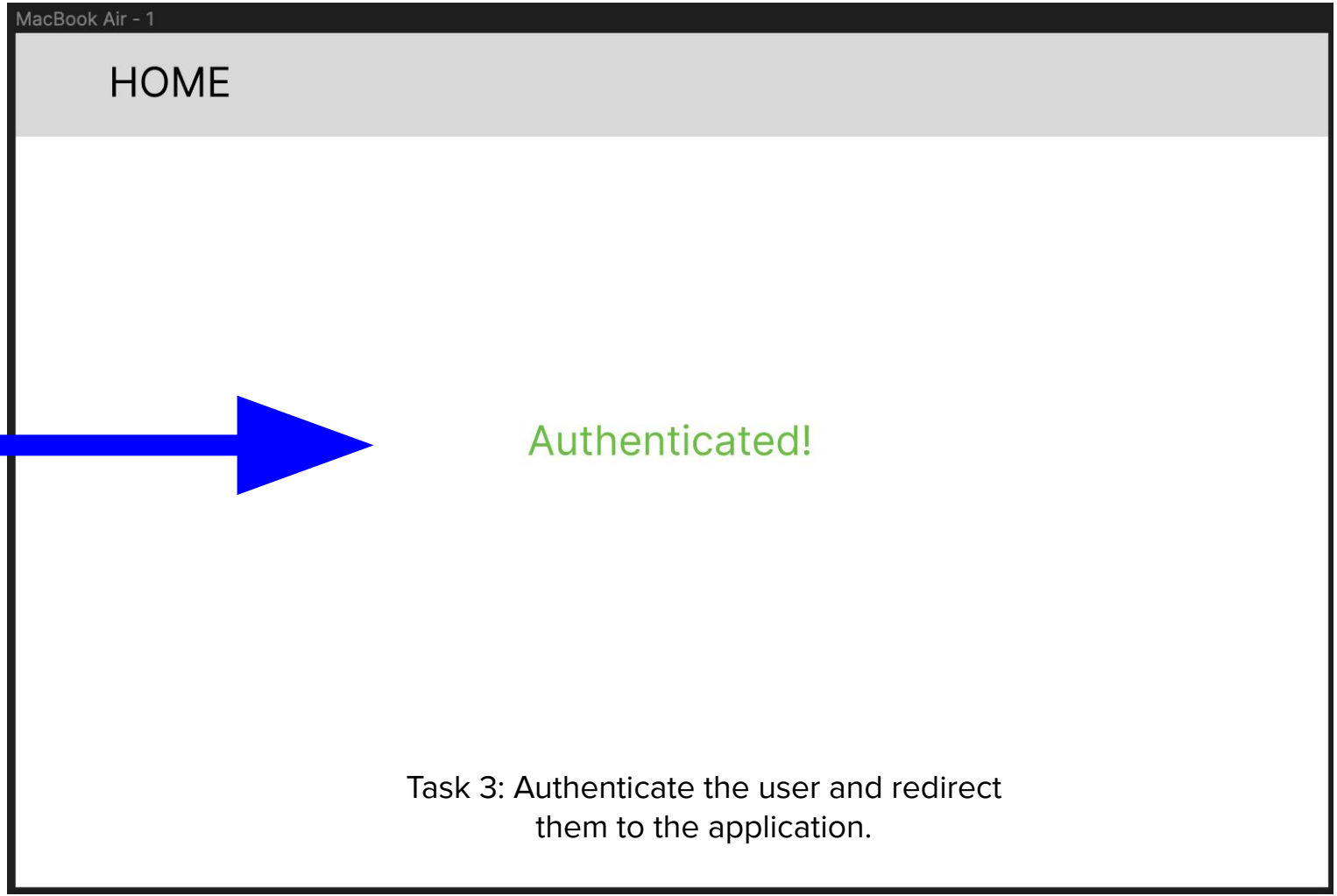
Storyboard (A)





Task 1: User is able to navigate to the website.

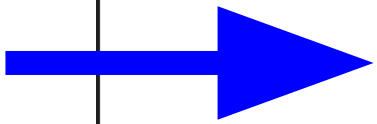
Task 2: User chooses an image, and then scrambles the image to create a password / login.



Task 3: Authenticate the user and redirect them to the application.

MacBook Air - 1

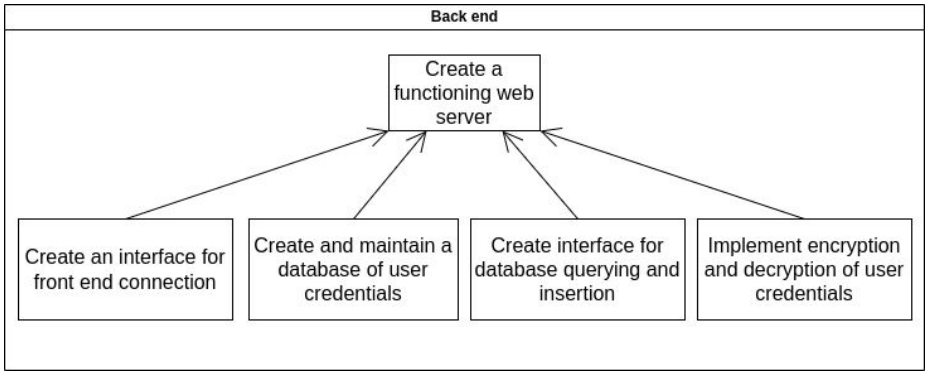
HOME

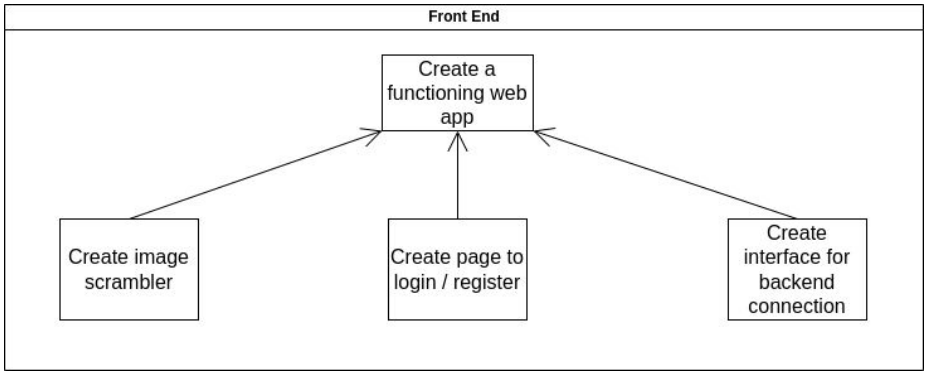


ERROR!
Click HOME to try again

Task 4: Handle errors in the case that someone used the wrong password or username.

Storyboard (B)





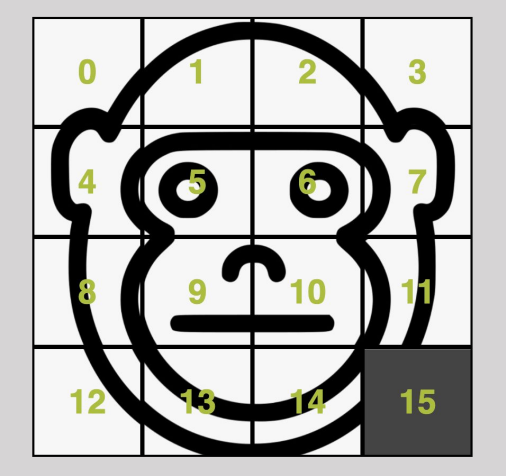
Front-end User Interface (Web Application)

Purpose:

- The user interface provides images for users to choose from to create a password for authentication purposes.

Technologies Used:

- HTML / JavaScript (Display and interact with the tiles that compose the image)
- CSS (Style the user interface / web page)



Backend API Services

Purpose:

- Provide the ability to perform CRUD operations on the database from the front end server hosting the user interface via HTTPS methods.

Technologies Used:

- Python programming language with the Flask framework. (The lightweight and easy to learn Flask framework provides an abundance of built in encryption tools, as well as libraries to easily interact with databases.)
- SSL / HTTPS

Data Storage

Purpose:

- Maintain records of all previously registered users, as well as their password “pattern,” so that they are able to easily log back in using the “scrambler password” (in integer format).

Technologies Used:

- SQLite (Provides the needed support for the scale we expect, giving us the ability to allocate resources in other critical sections of the application.)

Tasks:

- Connect to database through python
- Create tables that have proper columns (user+pass)
- Make it possible to update/delete records via user input

Thank You