

# Assignment 2 - Group Report

FIT5225 2023 SM1

CloudSnap: A Serverless Image Storage System with Tagging

Group: Clayton A2 Group 13

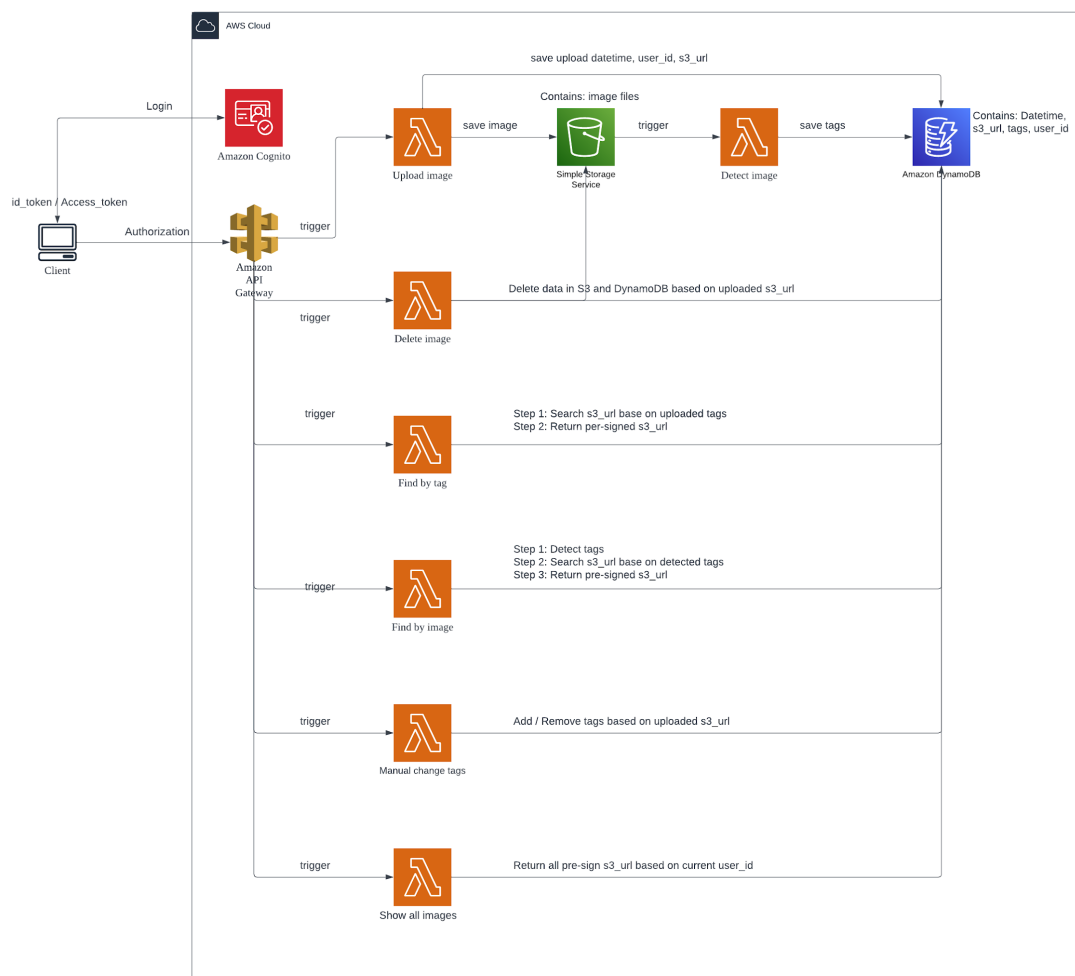
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## Contribution table

Student Name	Student ID	Contributions
Jingsheng Chang	33062803	Front-End: prototype design Front-End: search image by tags Front-End: Logout Front-End: main.html Report writing
Minghao Tang	33469024	Front-End: prototype design Front-End:upload image Front-End:find image by image Front-End:UI design of login
Shixin Huang	31029248	Front-End: prototype design Front-End: Manual change tags Front-End: Delete image Front-End: Show All Images
Shuhai Yu	32979908	AWS Architecture Diagram All Back-End AWS services: <ul style="list-style-type: none"><li>- 7 Lambda functions</li><li>- 6 API</li><li>- 1 S3 bucket</li><li>- 1 Dynamo DB</li><li>- 1 Cognito user pool</li></ul> Test all API by using POSTMAN

# System architecture



## User guide

Before you can effectively use this web page, it is necessary to deploy a local server and set the port to 5000. We highly recommend you to install the VScode extension called Live Server. Following the illustration below, configure the Live Server's port to be 5000. After that, click on the "Go Live" button located at the bottom right corner to deploy the web page to your local server.

```
settings.json X
.vscode > {} settings.json > ...
1 {
2   "liveServer.settings.port": 5000
3 }
```

Once done, the web page should be operational and ready for use.

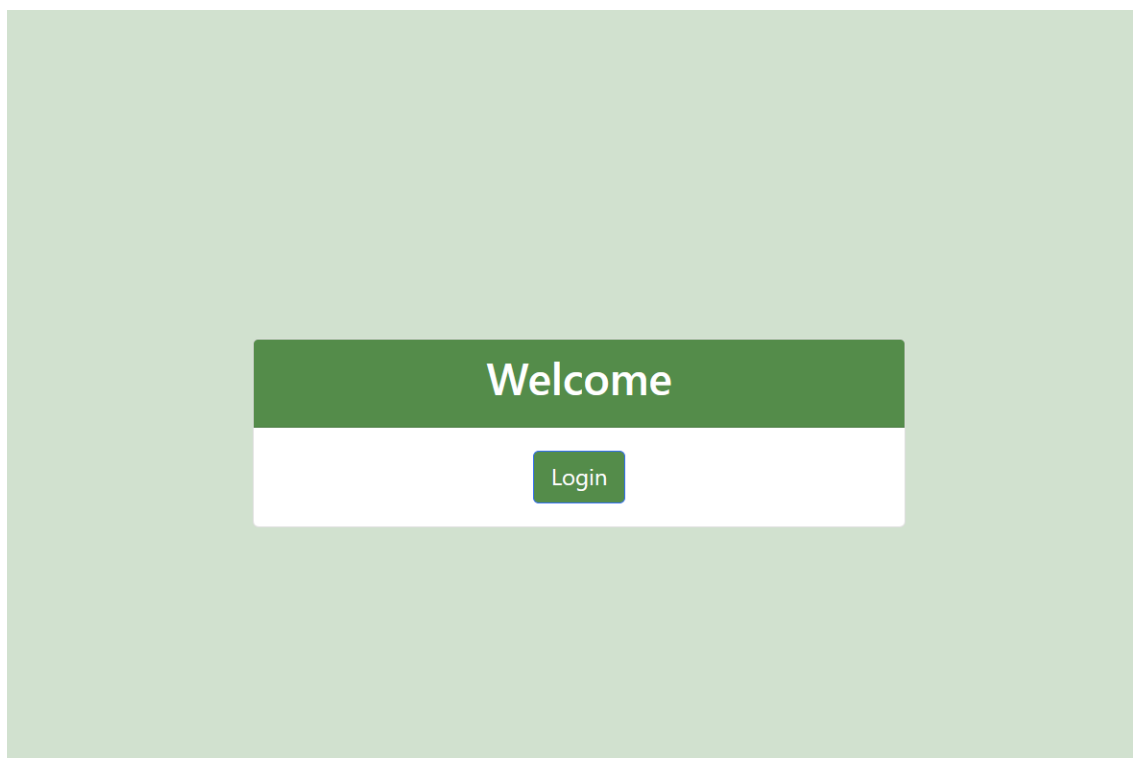
In the login section of this webpage, you will notice a simple yet crucial element labelled as "Login". This is essentially a hyperlink that directs you to an external site managed by Amazon Cognito for user authentication.

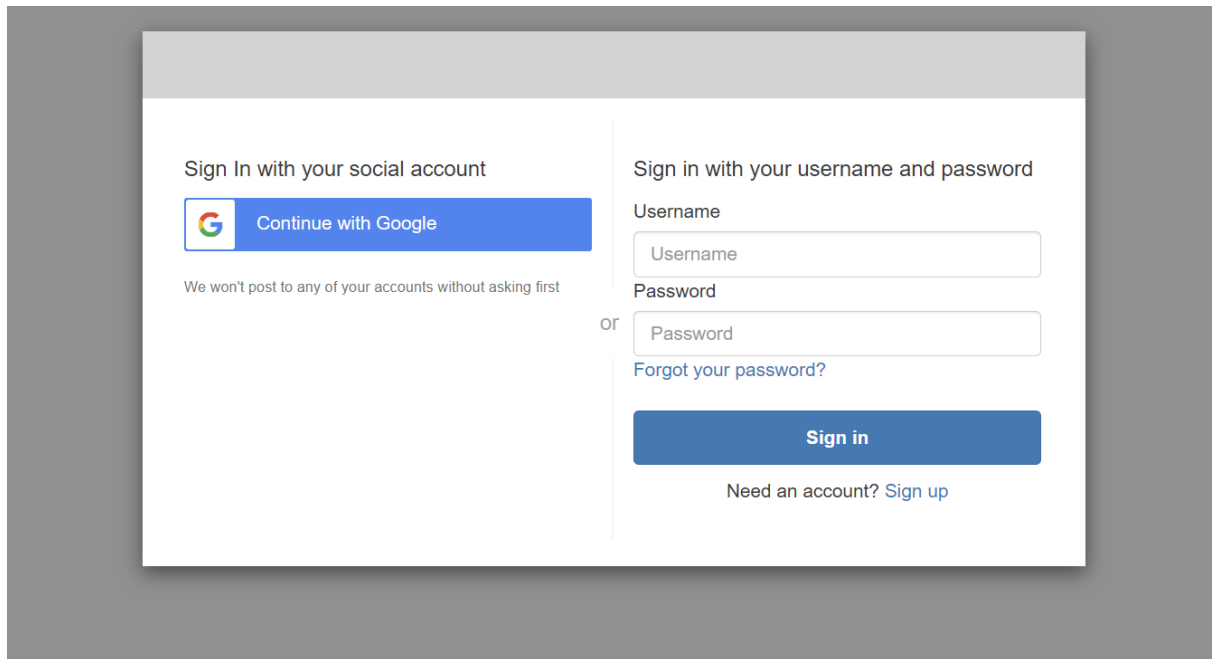
To access the webpage's contents, follow these simple steps:

Click on the "Login" text. This action will navigate your browser to an Amazon Cognito login page.

On the login page, input your registered username and password in the relevant fields and submit the form. If you are a new user, there will be an option for you to register and create a new account. You can also use Google authentication to login.

After a successful login, you will be redirected back to the main webpage (localhost:5000/html/main.html).





This main web page contains a variety of interactive elements designed to assist you in managing and searching for images. Follow the steps below to understand how to navigate and use the webpage:

1. **Logging Out:** Located at the top right corner of the webpage is the "Logout" button. You can click this button at any point to log out of your current session.

Logout

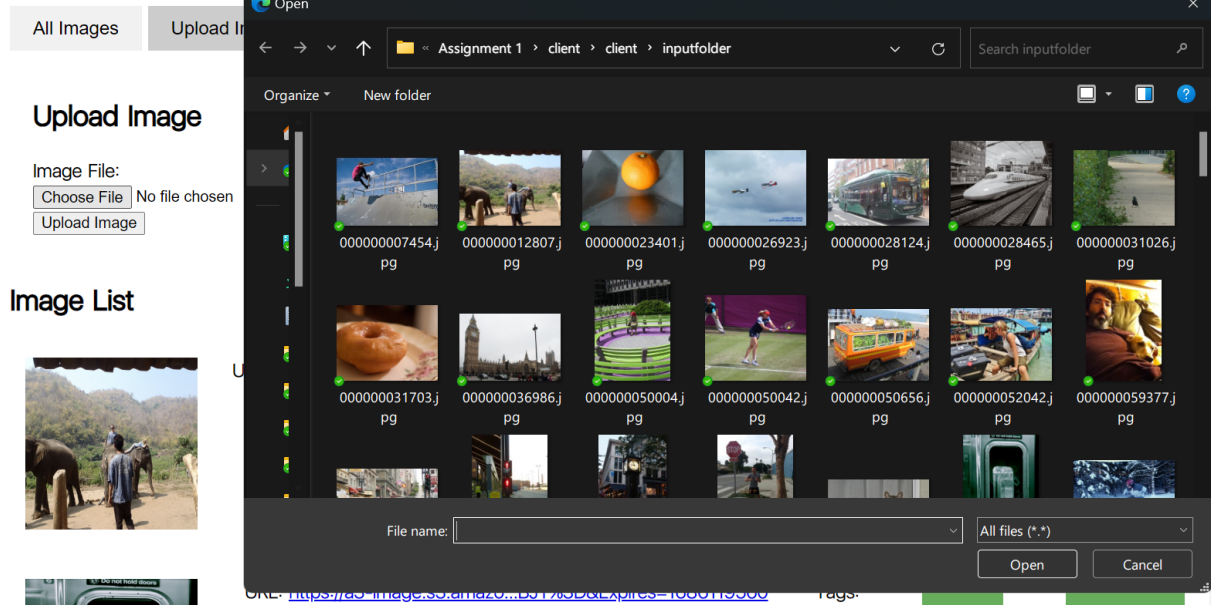
2. **Navigating the Main Page:** The body of this webpage consists of several tabs that include "Upload Image", "Find Tag", and "Find Images by Image". Click on these tabs to access their respective functionalities.



3. **Uploading an Image:** Click the "Upload Image" tab to open the upload form. Here, click the "Choose File" button to select an image file from your computer. After selecting your file, click "Upload Image" to upload the file to the application.

Welcome!

Logout



4. **Finding Image by Tags:** If you want to search for images associated with a specific tag, click on the "Find Tag" tab. Here, type the tag you want to search for in the provided field and click the "Search" button. The results will appear below the form. If you want to search for multiple tags, click the "Add Tag" button to add more input fields. You can click the "-" and "+" buttons to adjust the count of each tag. When the count number goes to 0, it will be removed from the tag searching list.

Search by tags

- 1 +

Search

Add Tag



5. **Finding Images by Image (tag):** To find similar images based on an existing image, click on the "Find Images by Image" tab. Just like with the "Upload Image" tab, you can select an image file and click "Find Images" to initiate the search.

Find Images Based on Image

Image File:

Choose File

000000007454.jpg

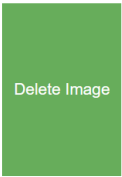
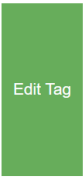
Find Images

Image List



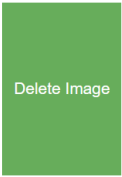
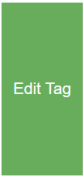
URL: <https://a3-image.s3.amazo...%3D%3D&Expires=1686119736>

Tags:  
person (1)



URL: <https://a3-image.s3.amazo...%3D%3D&Expires=1686119736>

Tags:  
person (1)





**6. Viewing All Images:** In the "Image List" section at the bottom of the webpage, you can see a list of all uploaded images by yourself (the current user) as you are already signed in.


All Images

Upload Image

Find Images by Tag

Find Images by Image

Image List

	URL: <a href="https://a3-image.s3.amazo...BJY%3D&amp;Expires=1686119755">https://a3-image.s3.amazo...BJY%3D&amp;Expires=1686119755</a>	Tags: person (1) elephant (1)	<div>Edit Tag</div>	<div>Delete Image</div>
	URL: <a href="https://a3-image.s3.amazo...BJY%3D&amp;Expires=1686119755">https://a3-image.s3.amazo...BJY%3D&amp;Expires=1686119755</a>	Tags:	<div>Edit Tag</div>	<div>Delete Image</div>
	URL: <a href="https://a3-image.s3.amazo...BJY%3D&amp;Expires=1686119755">https://a3-image.s3.amazo...BJY%3D&amp;Expires=1686119755</a>	Tags: orange (1)	<div>Edit Tag</div>	<div>Delete Image</div>

7. Edit tags & delete image

	URL: <a href="https://a3-image.s3.amazo...BJY%3D&amp;Expires=1686119755">https://a3-image.s3.amazo...BJY%3D&amp;Expires=1686119755</a>	Tags: laptop (1) cat (2)	<div>Edit Tag</div>	<div>Delete Image</div>
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**Edit Tags**

laptop: - 1 +

cat: - 2 +

New Tag Name

1

Add

Cancel

Save

Of course, you can switch between tabs at any time, and the content of the current tab will be hidden once a new tab is clicked. All actions taken within the tabs should be relatively instantaneous, though performance may depend on network conditions.

The website has been optimized for an interactive and user-friendly experience. Whether you're uploading, searching, or merely viewing images, each step will be intuitive and straightforward.

