



School of Computing

Diploma in Information Technology

Assignment: CA2

Class: DIT/FT/3A/02

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Github Repository Link: https://github.com/edee17/CSC_Assignment_2

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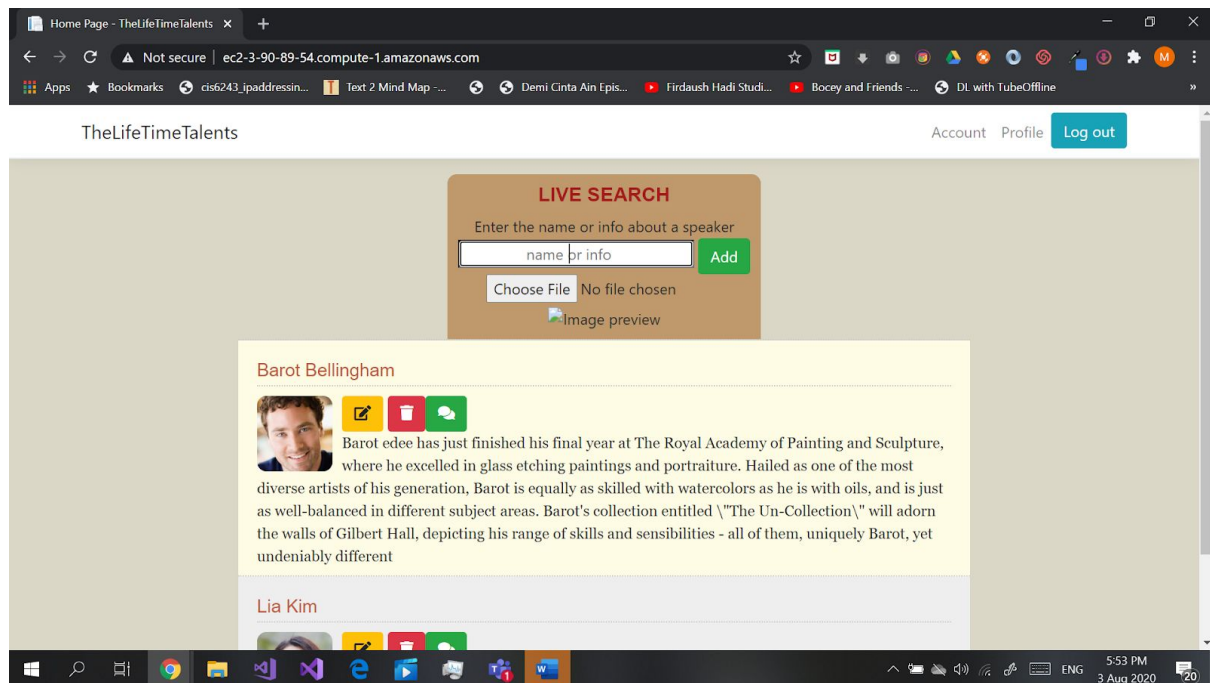
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Virtual Server

Host Talents's SaaS web app

Screenshot



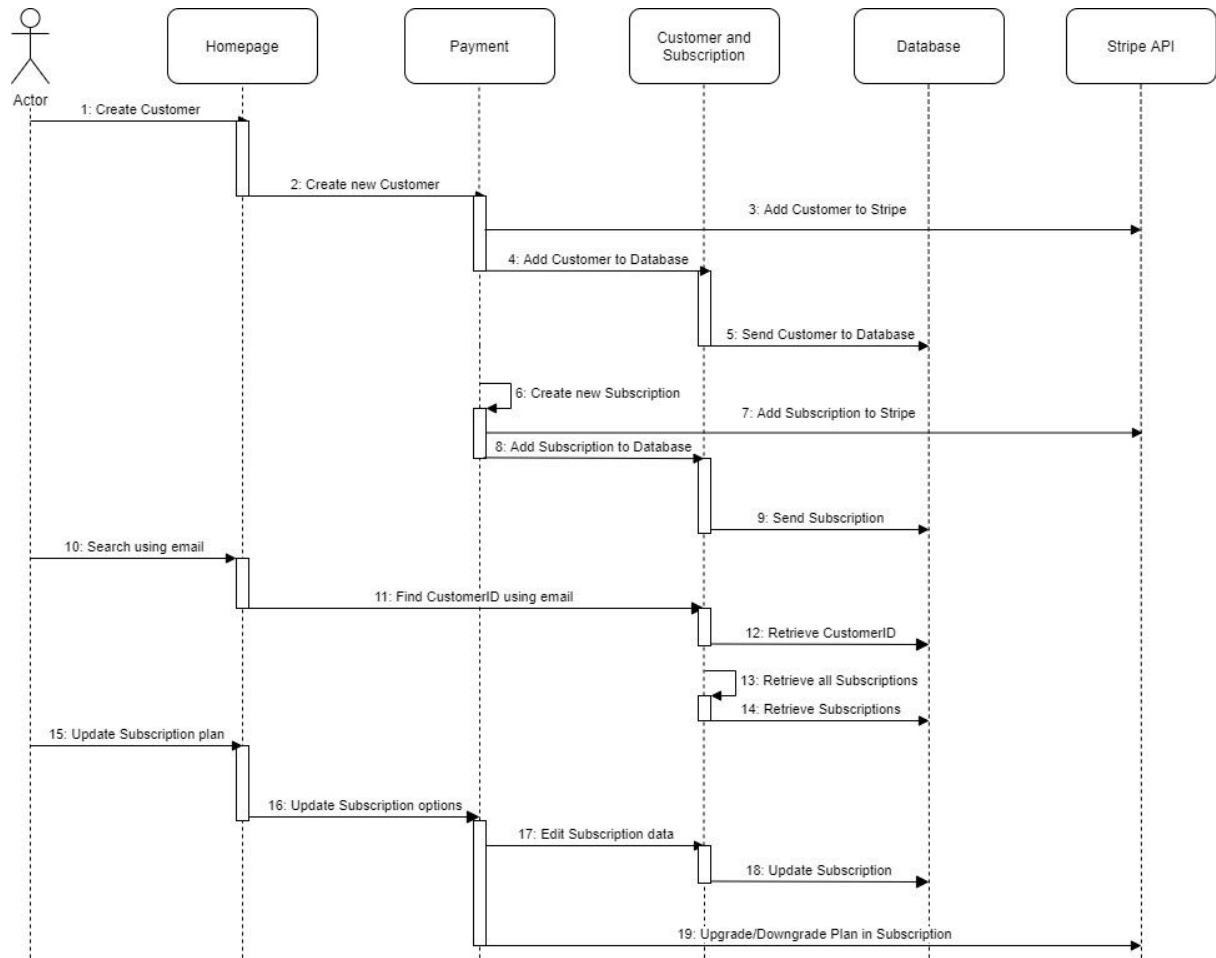
Payment Management

Accept daily subscription payment from users to differentiate between Free Users and Paid Users

API Documentation

1. PaymentController
 - a. Subscribe
 - i. Subscribe and create new customer to a product
 - ii. Method: Post
 - iii. Url: /Payment/Subscribe/
 - iv. Params:
 1. string cardEmail
 2. string plan
 3. string stripeToken
 - b. Upgrade
 - i. Upgrade or downgrade customer's subscription
 - ii. Method: Post
 - iii. Url: /Payment/Upgrade/
 - iv. Params:
 1. string subKey
 2. string plan

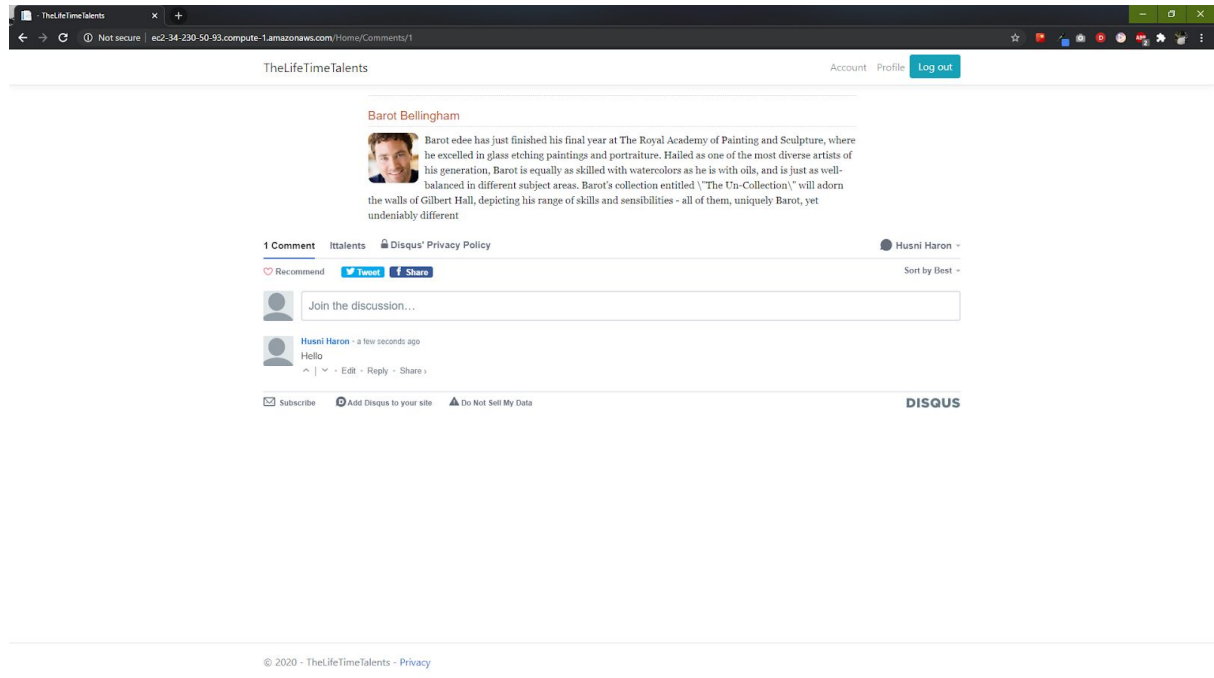
Sequence Diagram



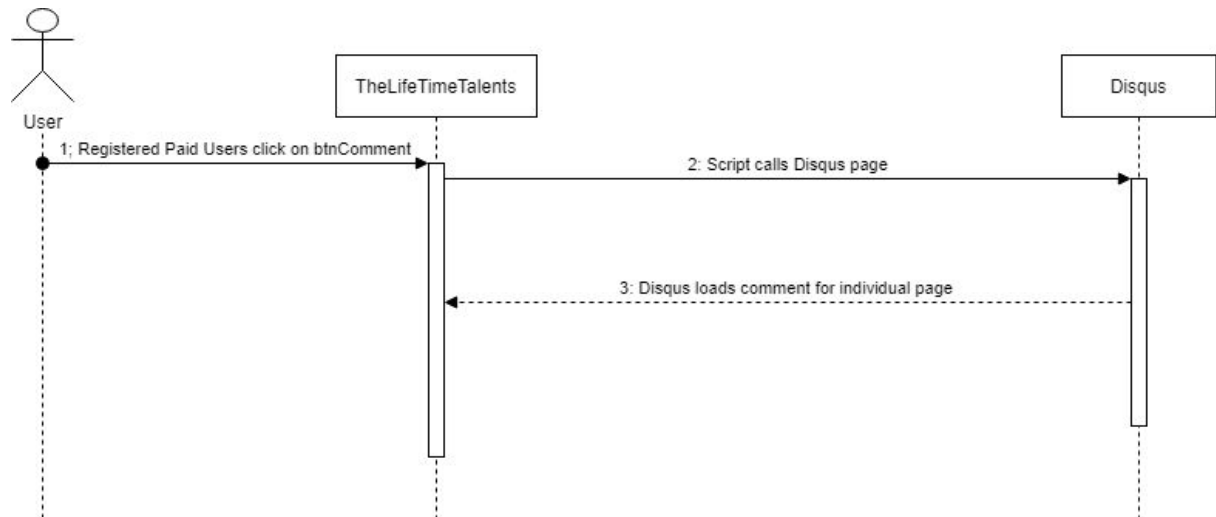
Discussion Management

Enable real time commenting for Paid users

Screenshot



Sequence Diagram



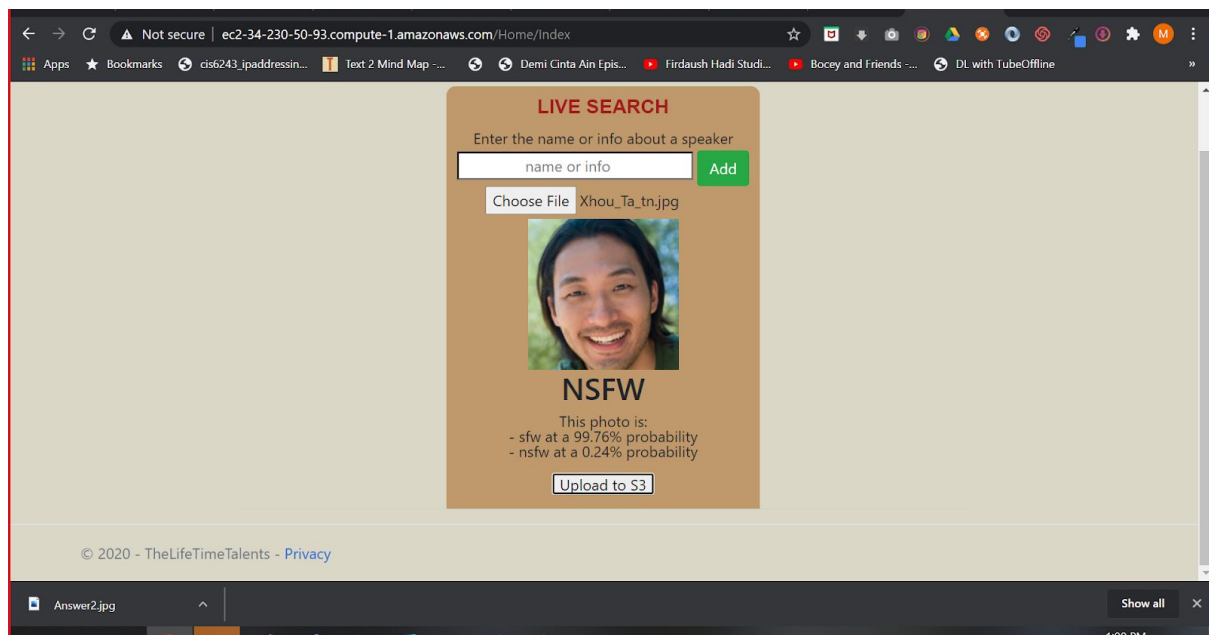
Storage & Image Recognition

Upload Talents images & Verify that the uploaded image is not NSFW

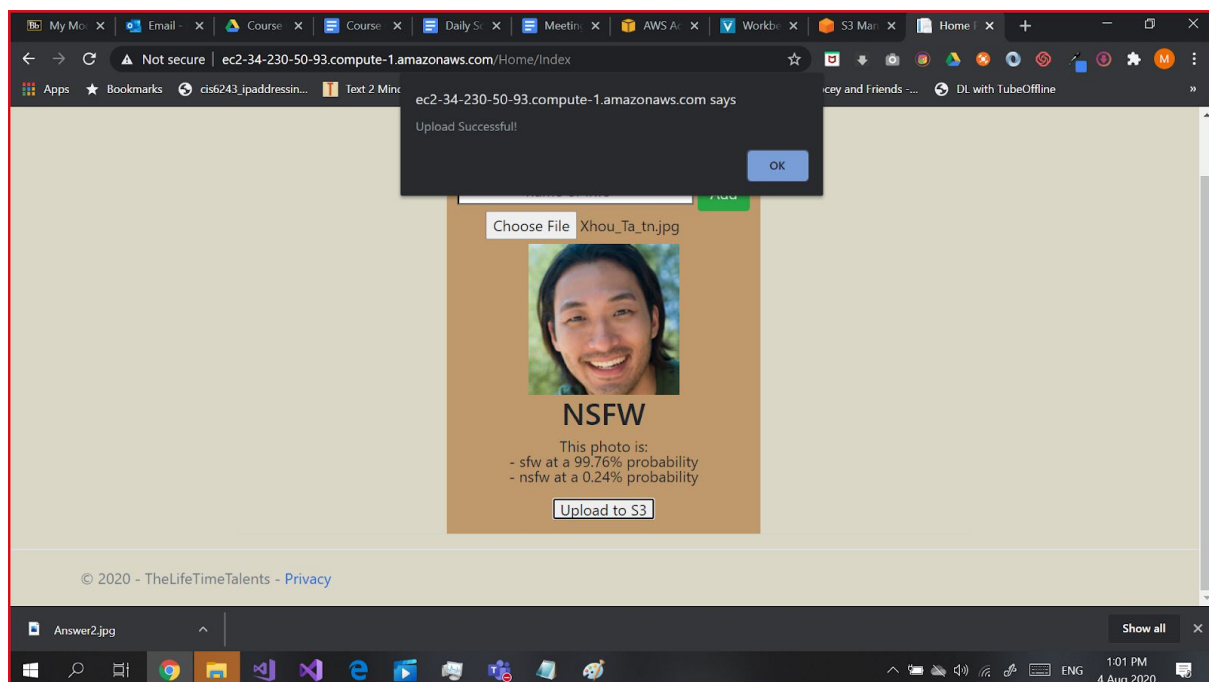
Postman Screenshots

Upload Talent Image to S3

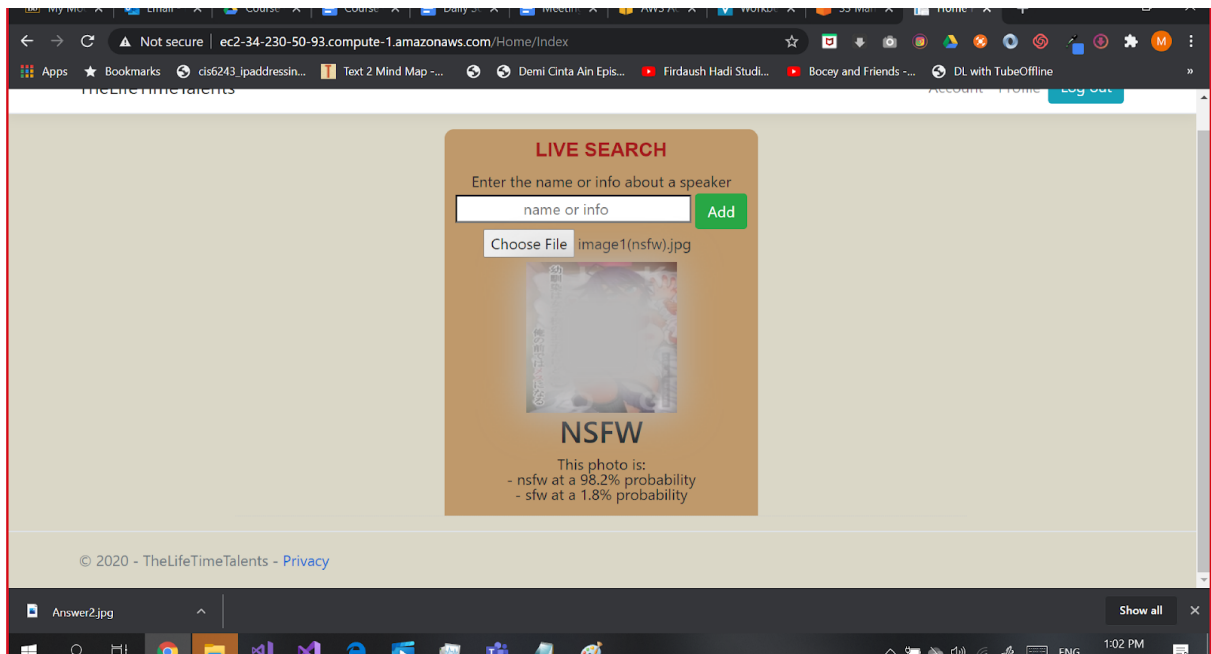
SFW:



Successful:



NSFW:



S3 Bucket

[Amazon S3](#) > [csctalents2](#)

csctalents2

Overview

Properties

Permissions

Management

Access points

🔍

Type a prefix and press Enter to search. Press ESC to clear.

📁 Upload













➕ Create folder

Download

Actions ▾

US East (N. Virginia) 🔁

Viewing 1 to 12

<input type="checkbox"/>	Name ▾	Last modified ▾	Size ▾	Storage class ▾
<input type="checkbox"/>	 120px-157th_Mountain_Division_logo.jpg	Aug 3, 2020 5:23:34 PM GMT+0800	4.8 KB	Standard
<input type="checkbox"/>	 2209786228467802896_4868071309.jpg	Jul 14, 2020 10:57:43 PM GMT+0800	145.0 KB	Standard
<input type="checkbox"/>	 Barot_Bellingham_tn.jpg	Jul 9, 2020 4:00:48 PM GMT+0800	12.5 KB	Standard-IA
<input type="checkbox"/>	 Ben_Daly_tn.jpg	Jul 9, 2020 4:20:22 PM GMT+0800	821.7 KB	Standard-IA
<input type="checkbox"/>	 Hillary_Goldwynn_tn.jpg	Jul 14, 2020 12:39:26 PM GMT+0800	10.8 KB	Standard
<input type="checkbox"/>	 ISPHITLER.png	Aug 4, 2020 12:55:32 PM GMT+0800	180.1 KB	Standard
<input type="checkbox"/>	 Jonathan_Ferrar_tn.jpg	Jul 14, 2020 2:06:25 PM GMT+0800	13.0 KB	Standard
<input type="checkbox"/>	 LaVonne_LaRue_tn.jpg	Jul 20, 2020 1:57:28 PM GMT+0800	12.2 KB	Standard
<input type="checkbox"/>	 Lia_Kim_tn.jpg	Aug 3, 2020 2:18:55 PM GMT+0800	19.4 KB	Standard
<input type="checkbox"/>	 Michael_Kim_tn.jpg	Jul 14, 2020 12:45:20 PM GMT+0800	854.3 KB	Standard
<input type="checkbox"/>	 Xhou-Ta_tn.jpg	Aug 4, 2020 1:01:53 PM GMT+0800	12.8 KB	Standard
<input type="checkbox"/>	 boy.jpg	Jul 20, 2020 2:03:37 PM GMT+0800	1015.3 KB	Standard

Viewing 1 to 12

SQL Database

Store Talents data such as image URL and talent details

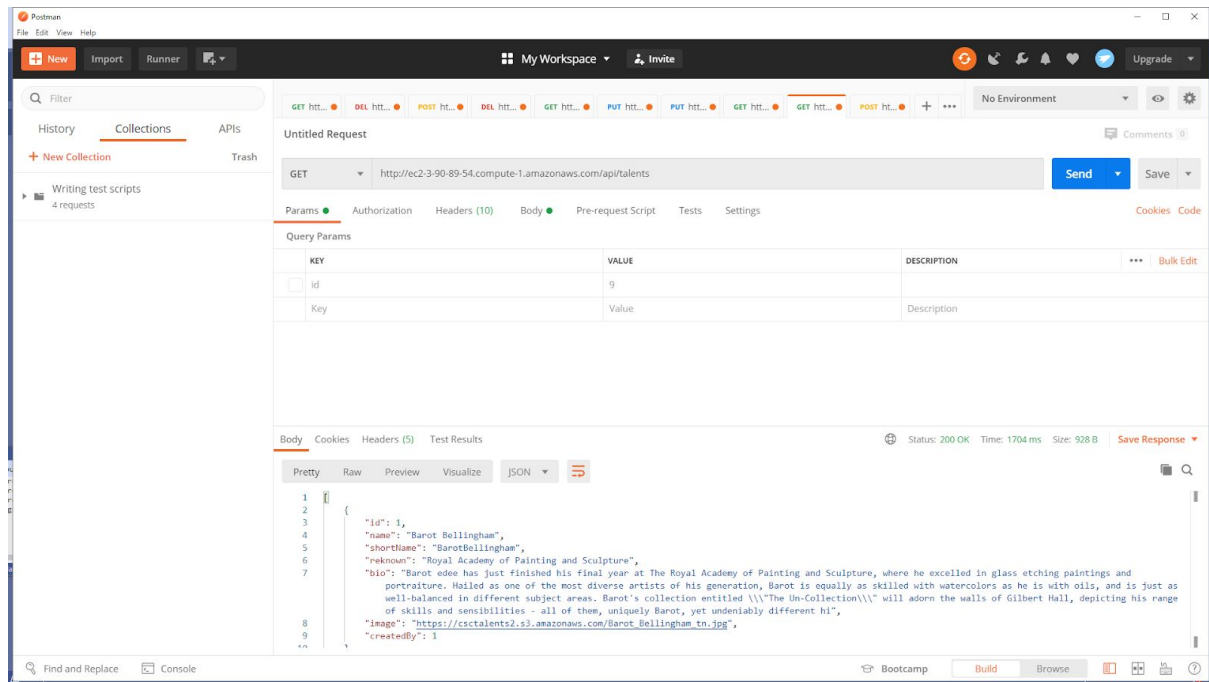
API Documentation

1. Get All Talents
 - a. Gets all talents
 - b. Method: GET
 - c. URL: api/talents
2. Get Talent
 - a. Get 1 talent specified by ID
 - b. Method: GET
 - c. URL: api/talents/{id}
 - d. Params
 - i. int id
3. Add Talent
 - a. Adds a talent
 - b. Method: POST
 - c. URL: api/talents/Add
 - d. Params
 - i. Talent talent
4. Edit Talent
 - a. Edits an existing talent in the repository
 - b. Method: PUT
 - c. URL: api/talents/{id}
 - d. Params
 - i. int id
 - ii. Talent talent
5. Delete Talent
 - a. Deletes a talent
 - b. Method: DELETE
 - c. URL: api/talents/{id}
 - d. Params
 - i. int id

Postman Screenshots

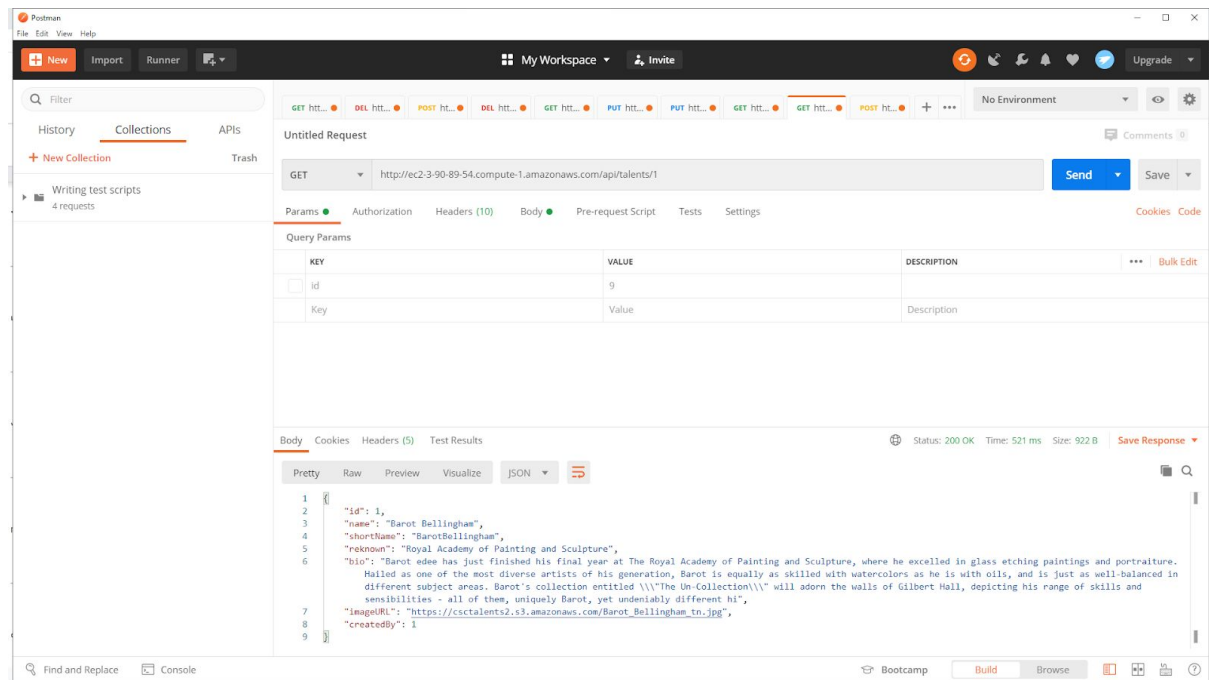
Get All Talents

Success:

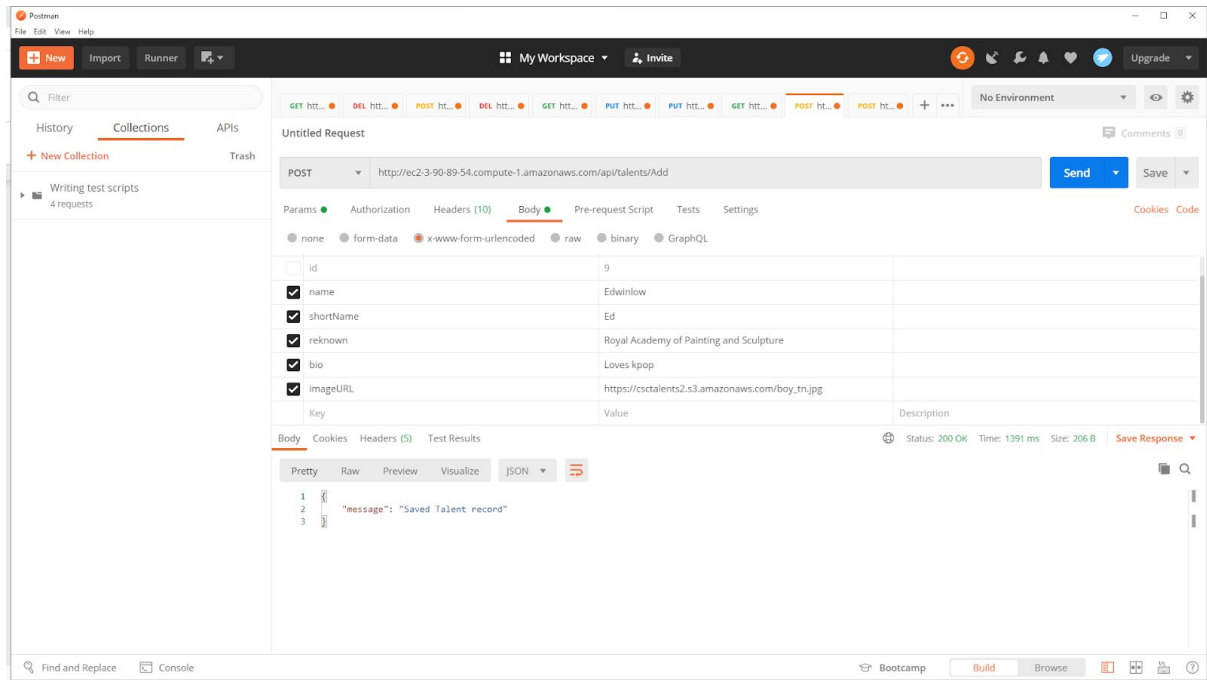


Get Talent

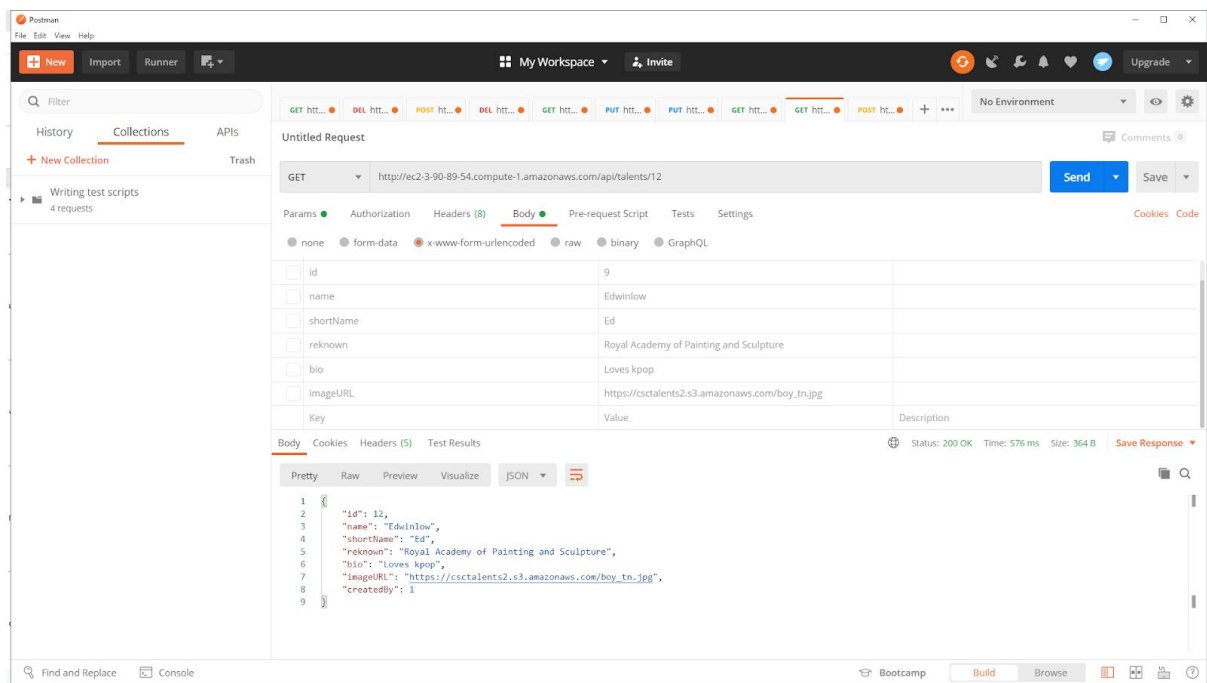
Success:



Add Talent Success:



Result



Edit Talent

The screenshot shows the Postman application with a PUT request configured. The URL is `http://ec2-3-90-89-54.compute-1.amazonaws.com/api/talents/1`. The request body is in JSON format, containing the following data:

Key	Value
id	1
name	Edwinlow
shortName	Edwin
reknown	Royal Academy of Painting and Sculpture boy
bio	Loves dancing
imageURL	https://csctalents2.s3.amazonaws.com/boy.jpg

The response is displayed in the bottom panel, showing a JSON message: `"message": "Edited talent record of Edwinlow"`. The status is 200 OK, with a time of 293 ms and a size of 219 B.

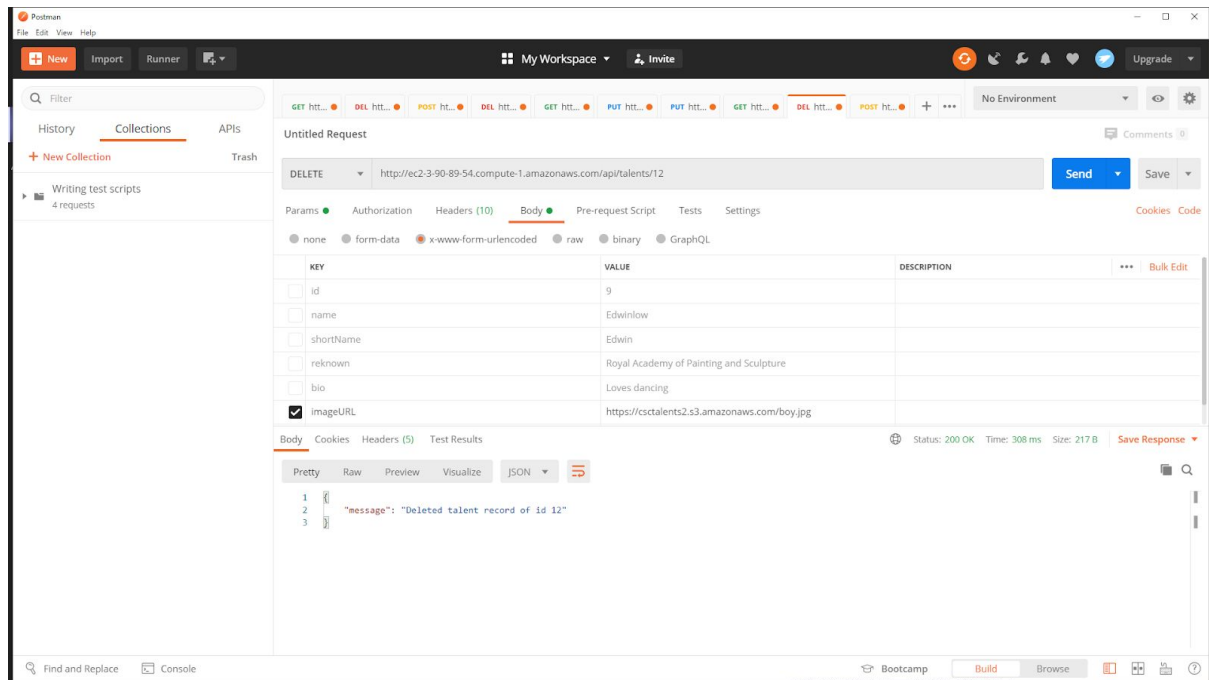
Result

The screenshot shows the Postman application with a GET request configured. The URL is `http://ec2-3-90-89-54.compute-1.amazonaws.com/api/talents/1`. The response is displayed in the bottom panel, showing a JSON object with the following data:

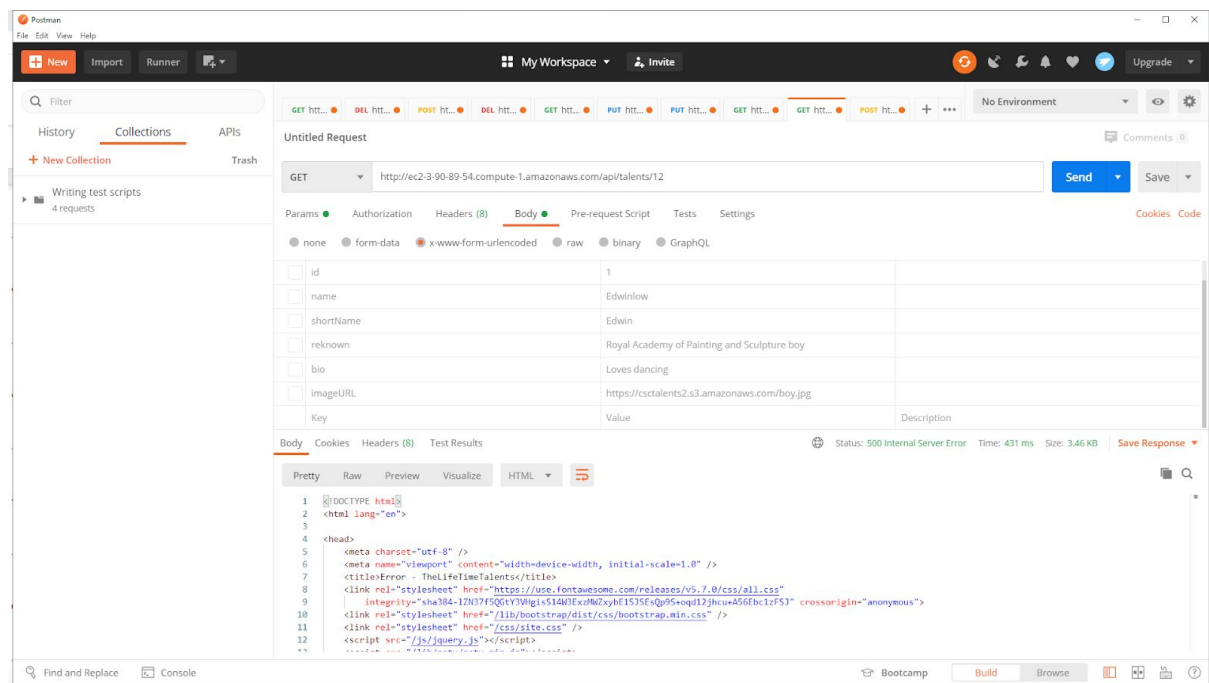
```
1 {
2   "id": 1,
3   "name": "Edwinlow",
4   "shortName": "Edwin",
5   "reknown": "Royal Academy of Painting and Sculpture boy",
6   "bio": "Loves dancing",
7   "imageURL": "https://csctalents2.s3.amazonaws.com/boy.jpg",
8   "createdBy": 1
9 }
```

The status is 200 OK, with a time of 285 ms and a size of 370 B.

Delete Talent Success:



Result:



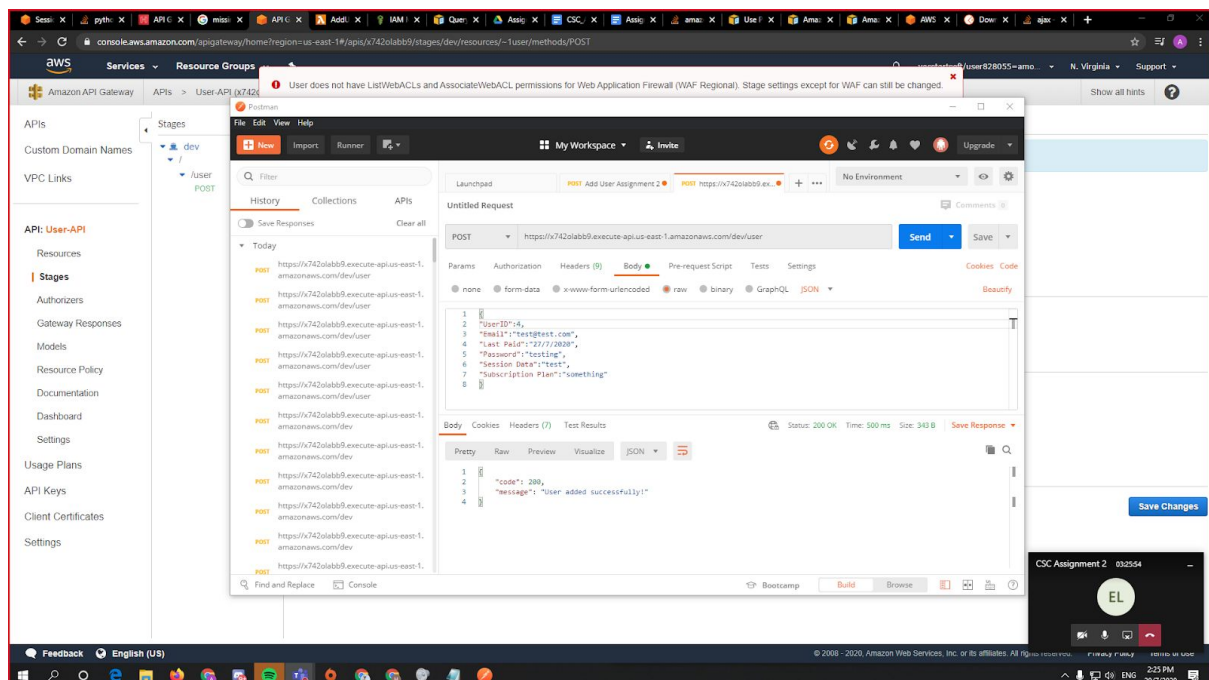
NoSQL Database

Store Users such as subscription plan, last paid, and/or session data

API Documentation

1. Add User
 - a. Adds a user to the database.
 - b. Method: POST
 - c. URL: /dev/user
 - d. Params
 - i. "UserID"
 - ii. "Email"
 - iii. "Last Paid"
 - iv. "Password"
 - v. "Session Data"
 - vi. "Subscription Plan"

Postman Screenshots

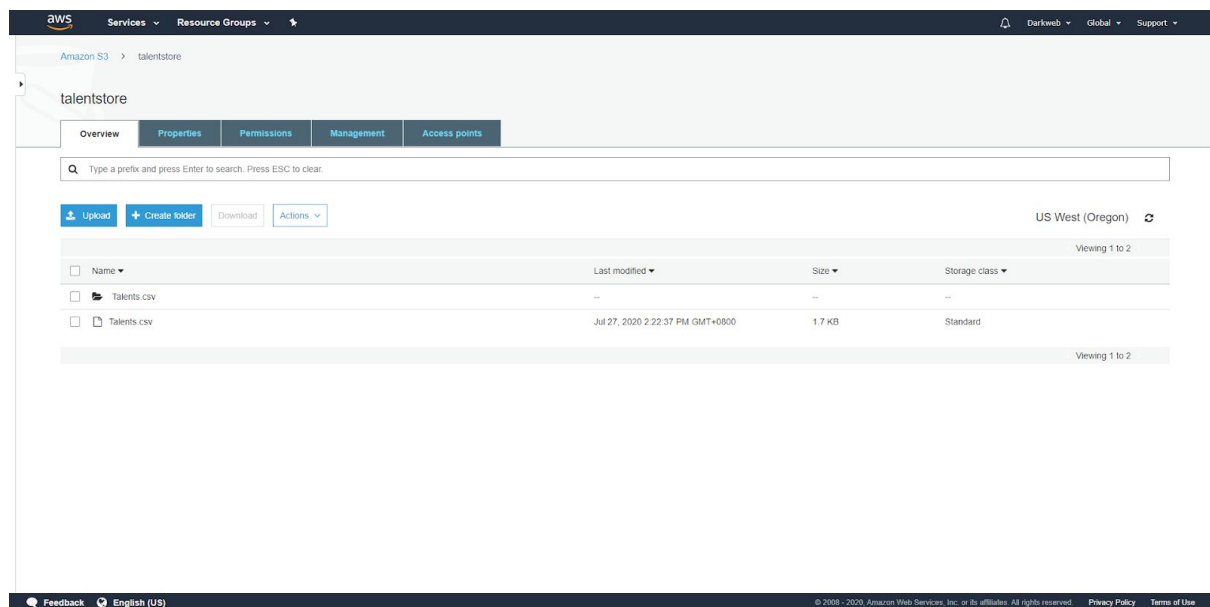


Data Lifecycle Management

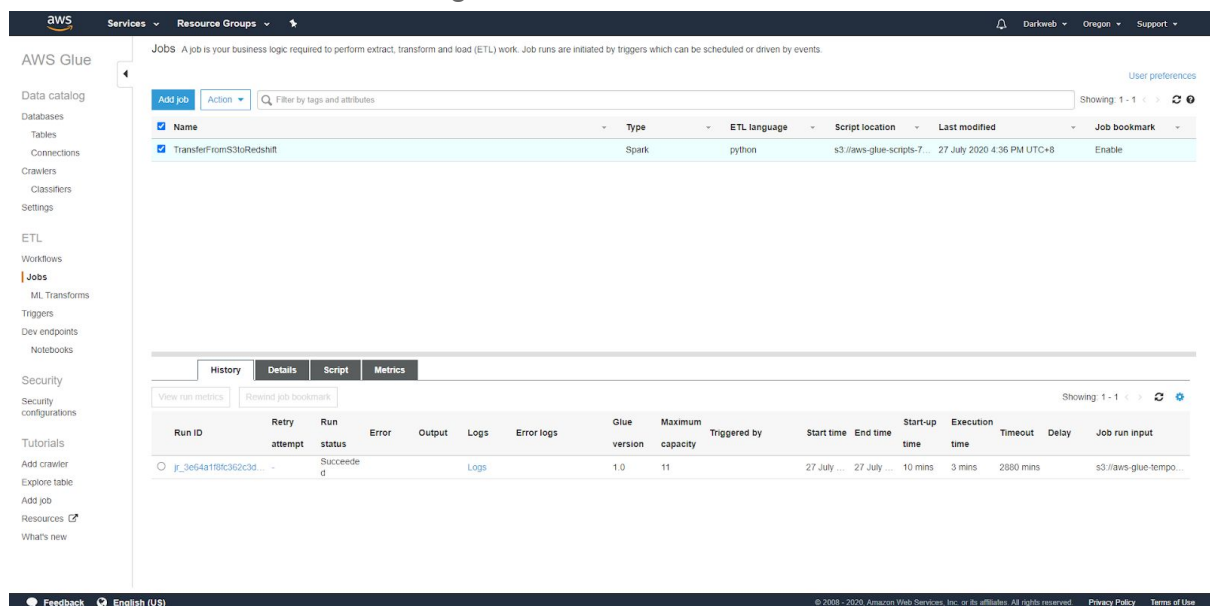
Export **manually** Talents and Users data, import to data warehouse for future Business Intelligence (BI) use

Screenshots

Create Talent.csv in S3 bucket



Link S3 bucket to RedShift using AWS Glue



Export as CSV and put it in Redshift:

The screenshot shows the AWS Data console interface. On the left, the 'Data objects' sidebar lists various services like Amazon S3, Amazon Redshift, and Amazon Athena. The main area is the 'Query editor' for a Redshift cluster named 'talent'. It shows a table named 'talents_csv' with columns: id, name, shortname, reknown, bio, and imageurl. The table contains three rows of data. Below the table, there are tabs for 'Query history', 'Query results', and 'Table details'. The 'Table details' tab is active, showing the table's schema and a 'Preview data' button.

id	name	shortname	reknown	bio	imageurl
1	Barot Bellingham	BarotBellingham	Royal Academy of Painting and Sculpture	Barot edee has just finished his final year at The Royal Academy of Painting and Sculpture, where he excelled in glass etching paintings and portraiture. Hailed as one of the most diverse artists of his generation, Barot is equally as skilled with watercolors as he is with oils, and is just as well-balanced in different subject areas. Barot's collection entitled \"The Un-Collection\" will adorn the walls of Gilbert Hall, depicting his range of skills and sensibilities - all of them, uniquely Barot, yet undeniably different	https://csctalents2.s3.amazonaws.com/Barot_Bellingham_tn.jpg
6	Edwin	Edwr	Student of SP on first sem	I love SP. School is good and also intern \"The Artist to Watch in 2012 by the London Review. Jonathan has already sold one of the highest priced-commissions paid to an art student, ever on record. The piece, entitled Gratitude Resort, a work in oil and mixed media, was sold for \$750,000 and Jonathan donated all the proceeds to Art for Peace, an organization that provides college art scholarships for creative children in developing nations	https://csctalents2.s3.amazonaws.com/LaVonnie_LaRue_tn.jpg
2	Jonathan G. Ferrar II	Jonathan_Ferrar	Artist to Watch in 2012	The Artist to Watch in 2012 by the London Review, Jonathan has already sold one of the highest priced-commissions paid to an art student, ever on record. The piece, entitled Gratitude Resort, a work in oil and mixed media, was sold for \$750,000 and Jonathan donated all the proceeds to Art for Peace, an organization that provides college art scholarships for creative children in developing nations	https://csctalents2.s3.amazonaws.com/Jonathan_Ferrar_tn.jpg

API Management

Publish/Deploy your Talents data REST API

API Documentation

1. GET API
 - a. Get all data.
 - b. Method: Get
 - c. Url: <https://mmmzuqwhp7.execute-api.us-west-2.amazonaws.com/dev/get-talent>
2. POST API
 - a. Add new data.
 - b. Method: Post

- c. Url: <https://mmmzuqwhp7.execute-api.us-west-2.amazonaws.com/dev/add-talent>

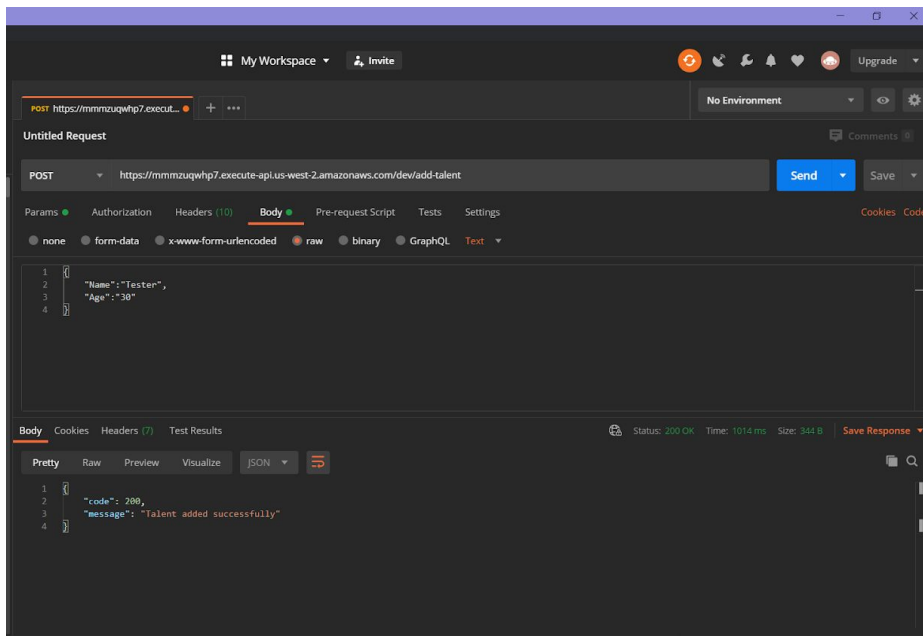
Postman Screenshots

[GET]

https://mmmzuqwhp7.execute-api.us-west-2.amazonaws.com/dev/get-talent

```
[{"Age": "20", "Name": "John"}, {"Age": "29", "Name": "Sam"}, {"Age": "30", "Name": "Tester"}, {"Age": "19", "Name": "Test"}]
```

[POST]

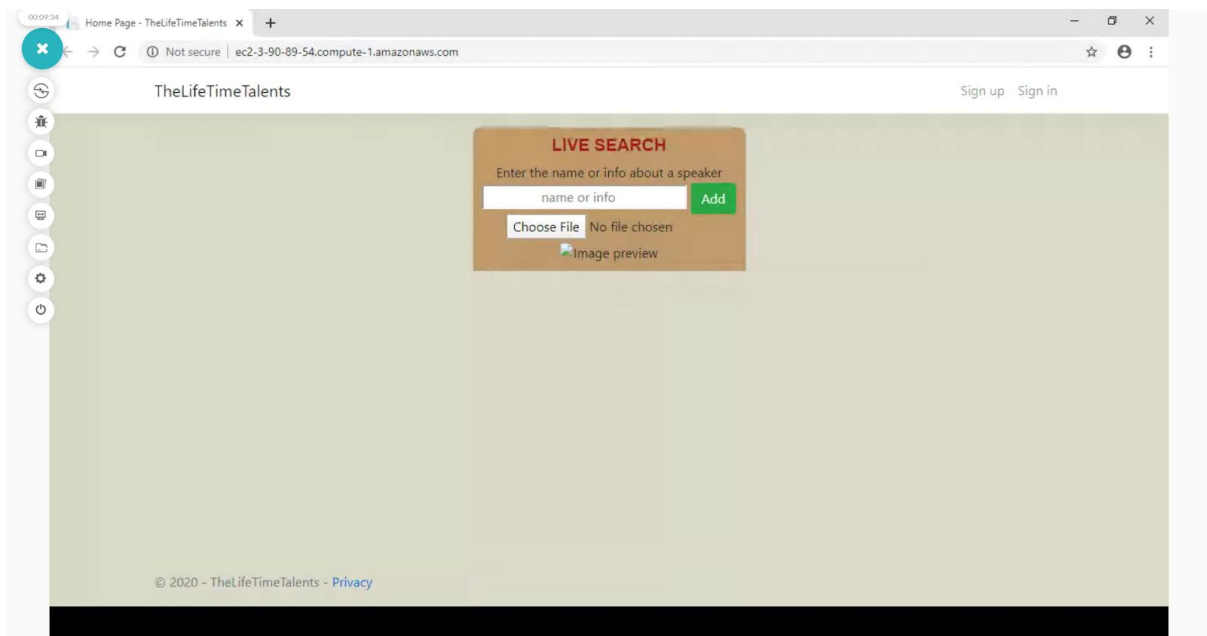


Cross Browser Testing (LambdaTest)

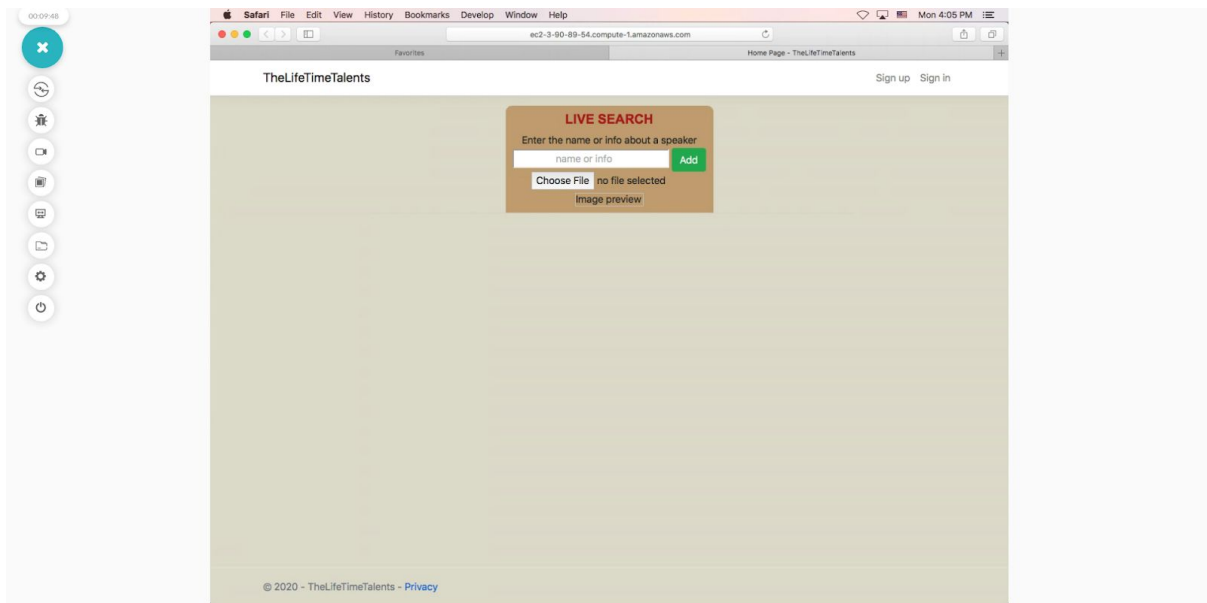
Show ability to use cloud cross browser testing tool to auto test web app and submit screenshots as proof

Screenshots

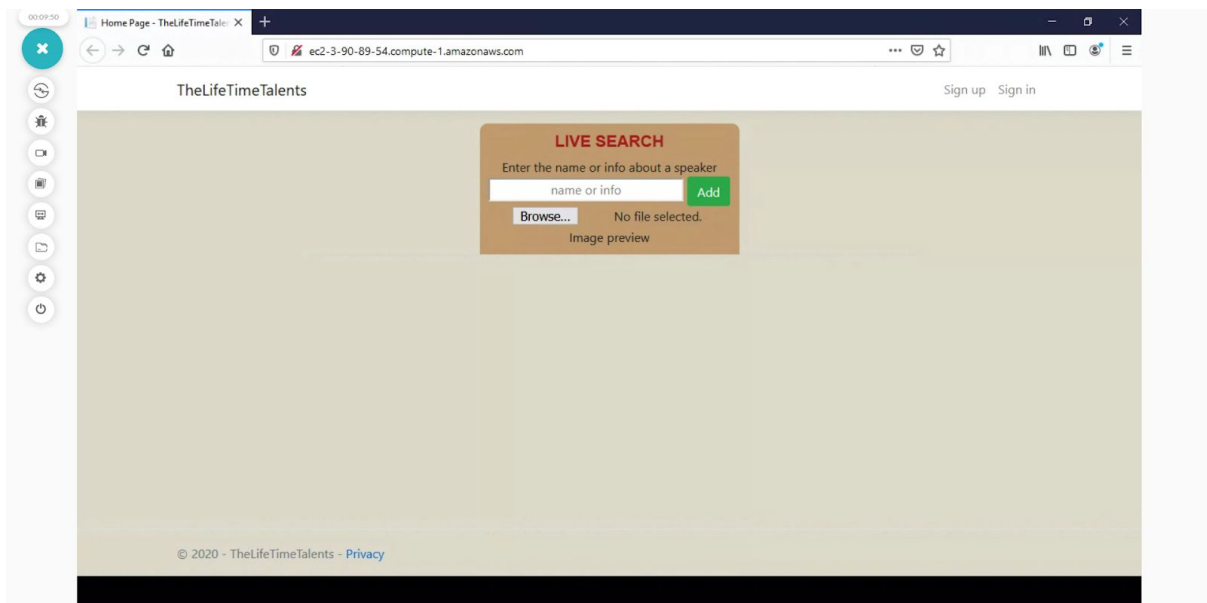
Chrome:



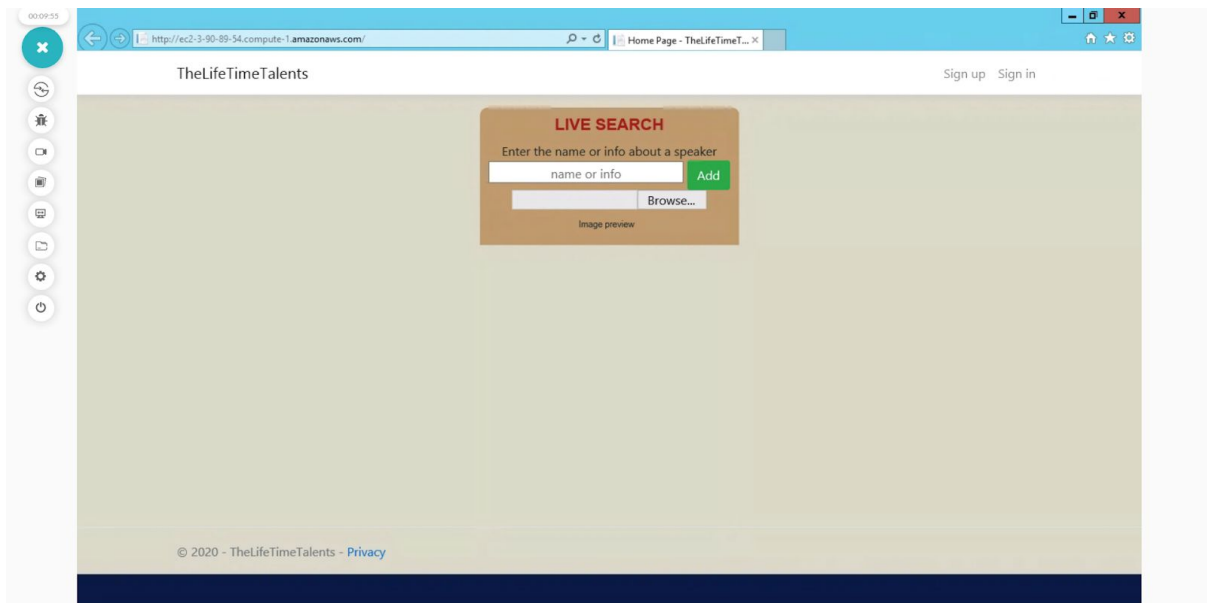
Safari:



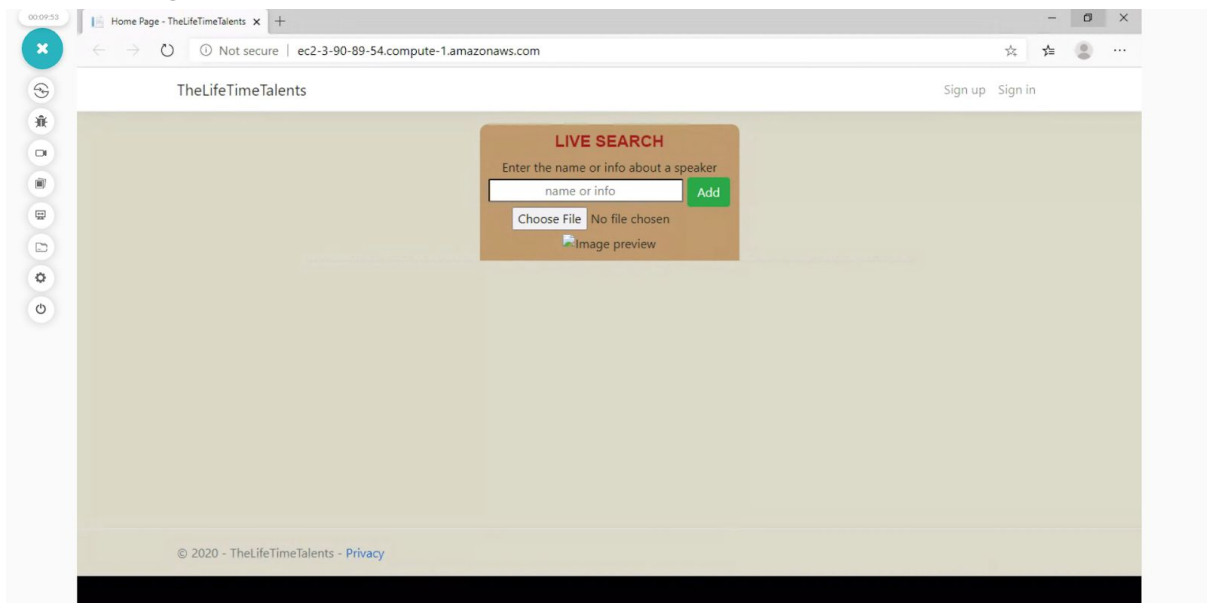
Firefox:



Internet Explorer:



Microsoft Edge:



System Diagram

Draw a detailed architecture system diagram to illustrate your SaaS App

