

Module: ST0280 Cloud and Service Computing

Class: DIT/FT/3A/23

Lecturer: Mr Ji Pengxiang

Submission Date: 07/02/2021

Team members:

Li Tianchu (1828568)

Li Zhangyi ()

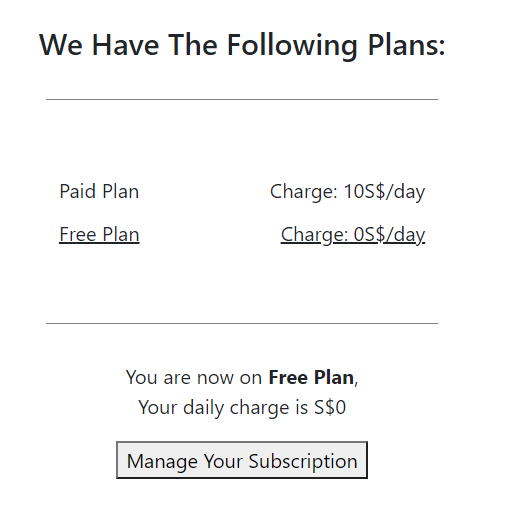
Wong Qing Er ()

Gabriel Chen ()

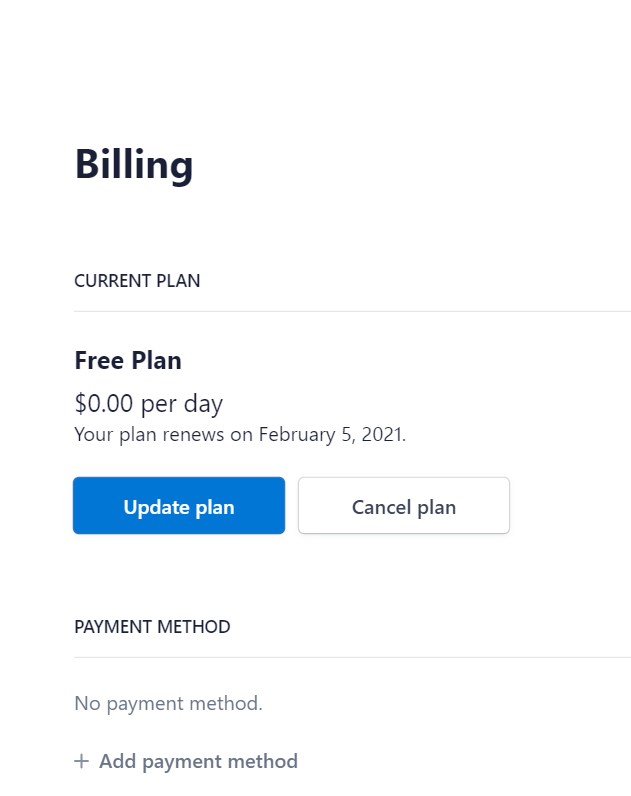
Sun Xiao Tang ()

1. Application Features
   1. Basic Features

* View and change subscription plan

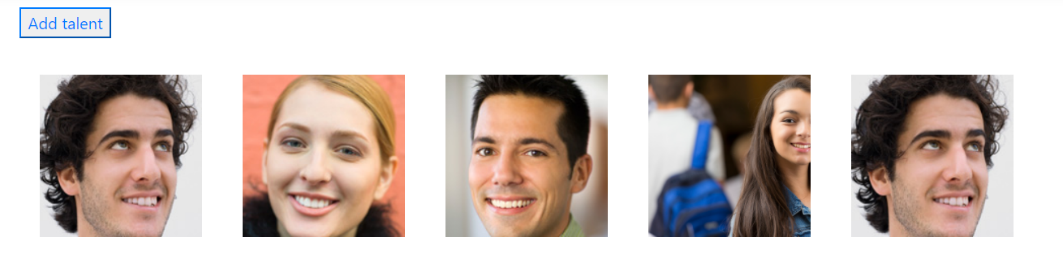


You can see your current plan at the product page

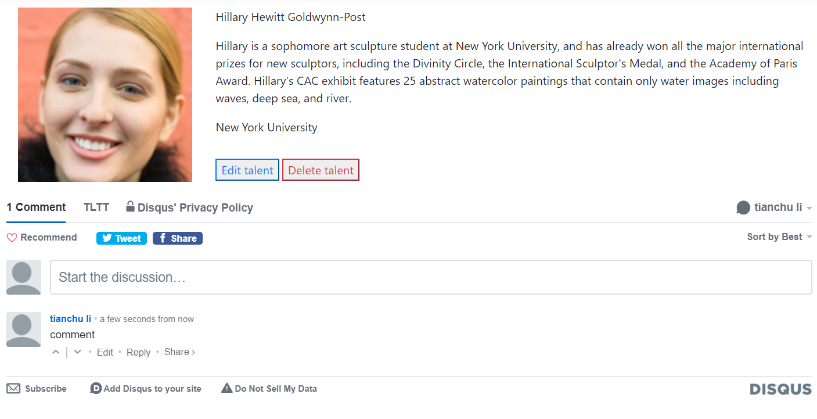


You can change the plan at customer portal, after you click “Manage Your Subscription” button

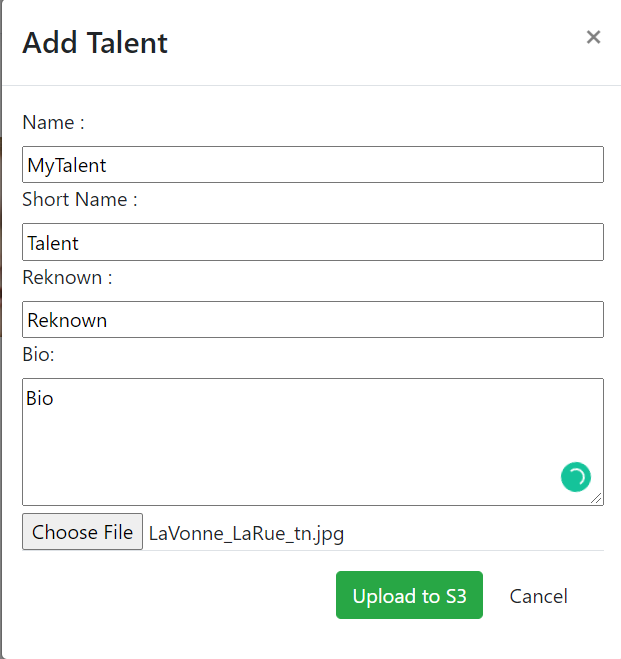
* Perform CRUD operations and comment on Talents

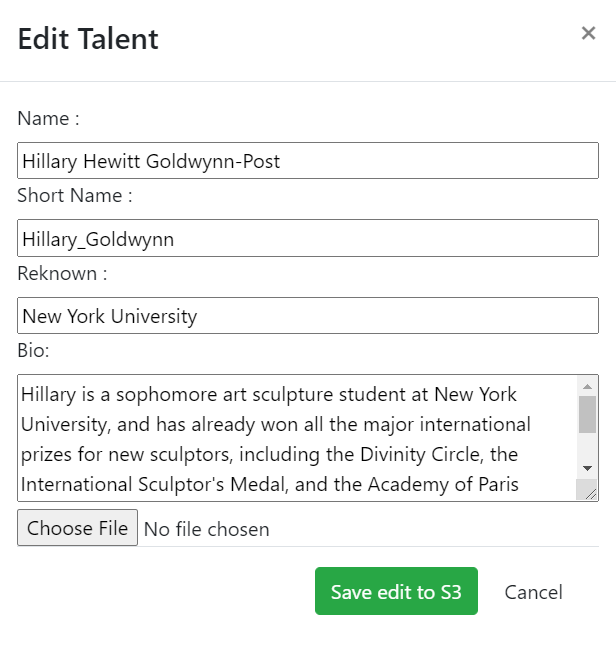


The talent page will list all the talent photos, on this page, you can perform Add operation.

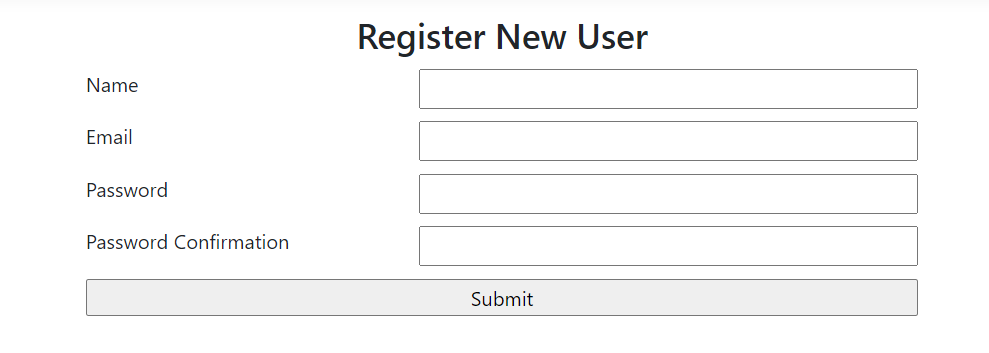


Click one of them, will direct to the page containing the talent details, you view the details, perform edit or delete operation, and comment on the talent profile.

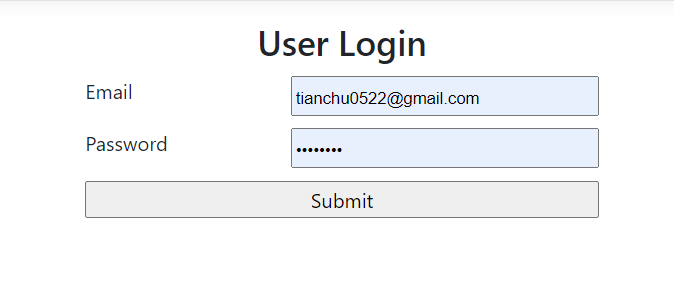




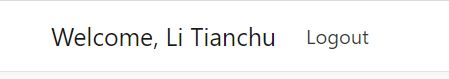
* Image recognition for talent photo
  1. Additional Features
* User Authentication



You can sign up by clicking the register button, the credentials will by stored in the google cloud identity platform.



You can login if you have already created an account.

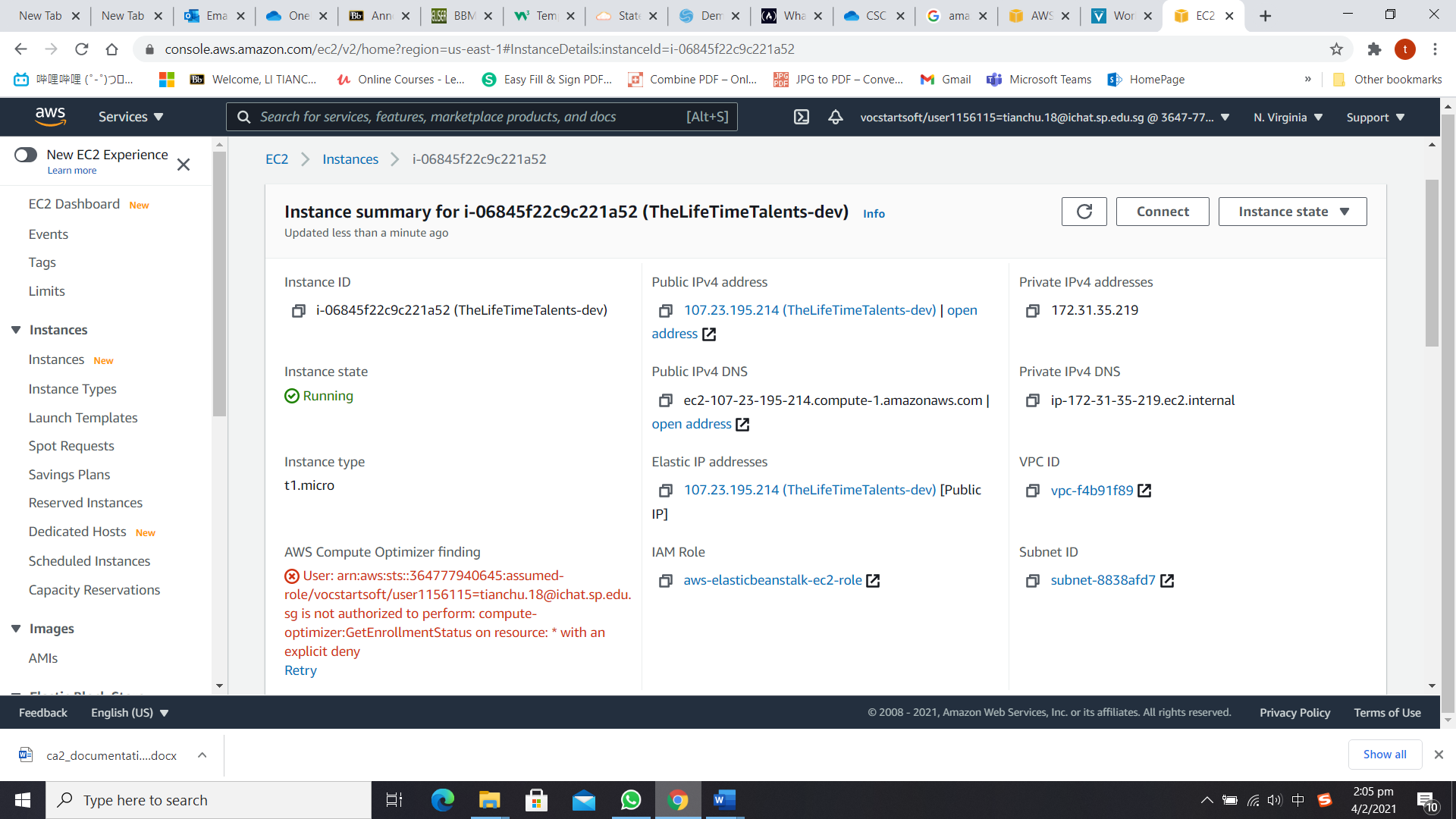


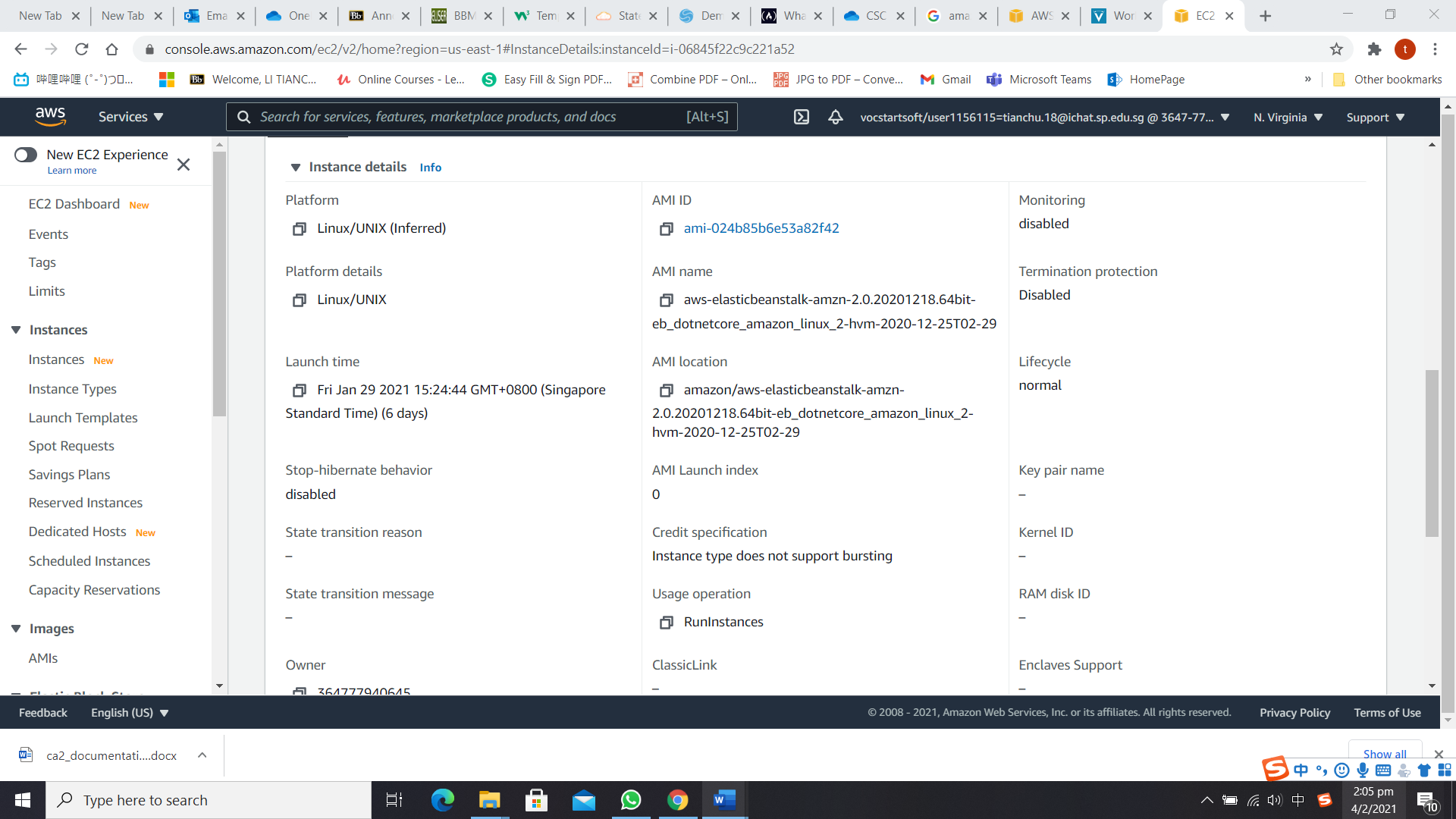
After you have logged in, Your name will be shown on the top bar, and there will be an option for you to log out.

* Recommendation
* Serverless API Architecture with Amazon Lambda and API Gateway

See 2.7 and 2.8

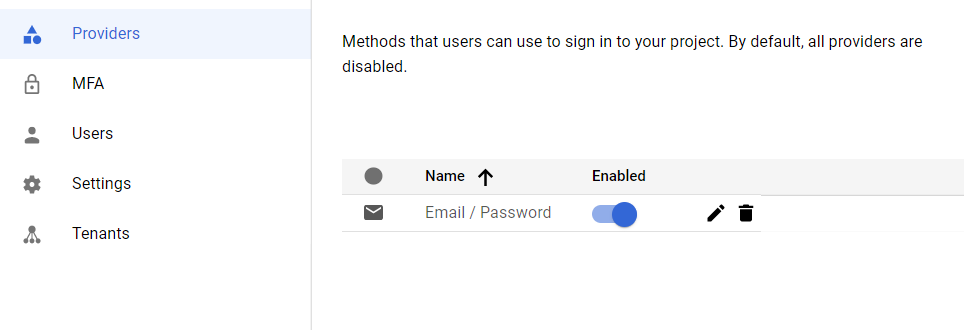
1. Web Services
   1. Amazon EC2 (Client Hosting)



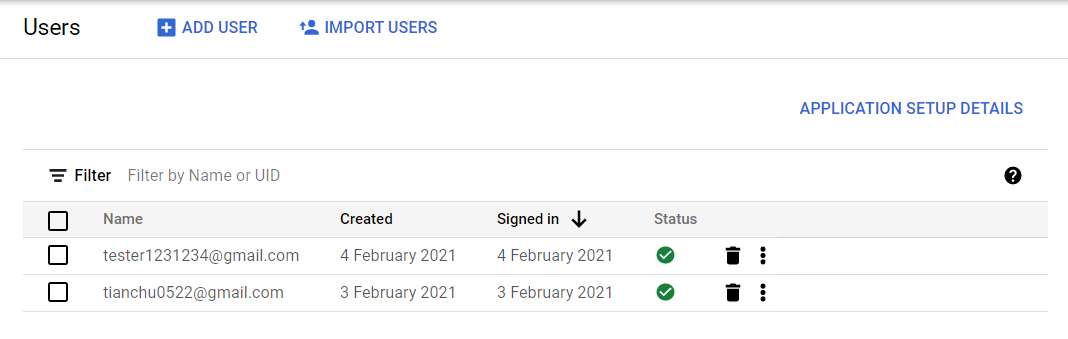


The instance that is running the our website**(url:** [**http://thelifetimetalents-dev.us-east-1.elasticbeanstalk.com/**](http://thelifetimetalents-dev.us-east-1.elasticbeanstalk.com/)**).**

* 1. Google Identity Platform (Identity Management)

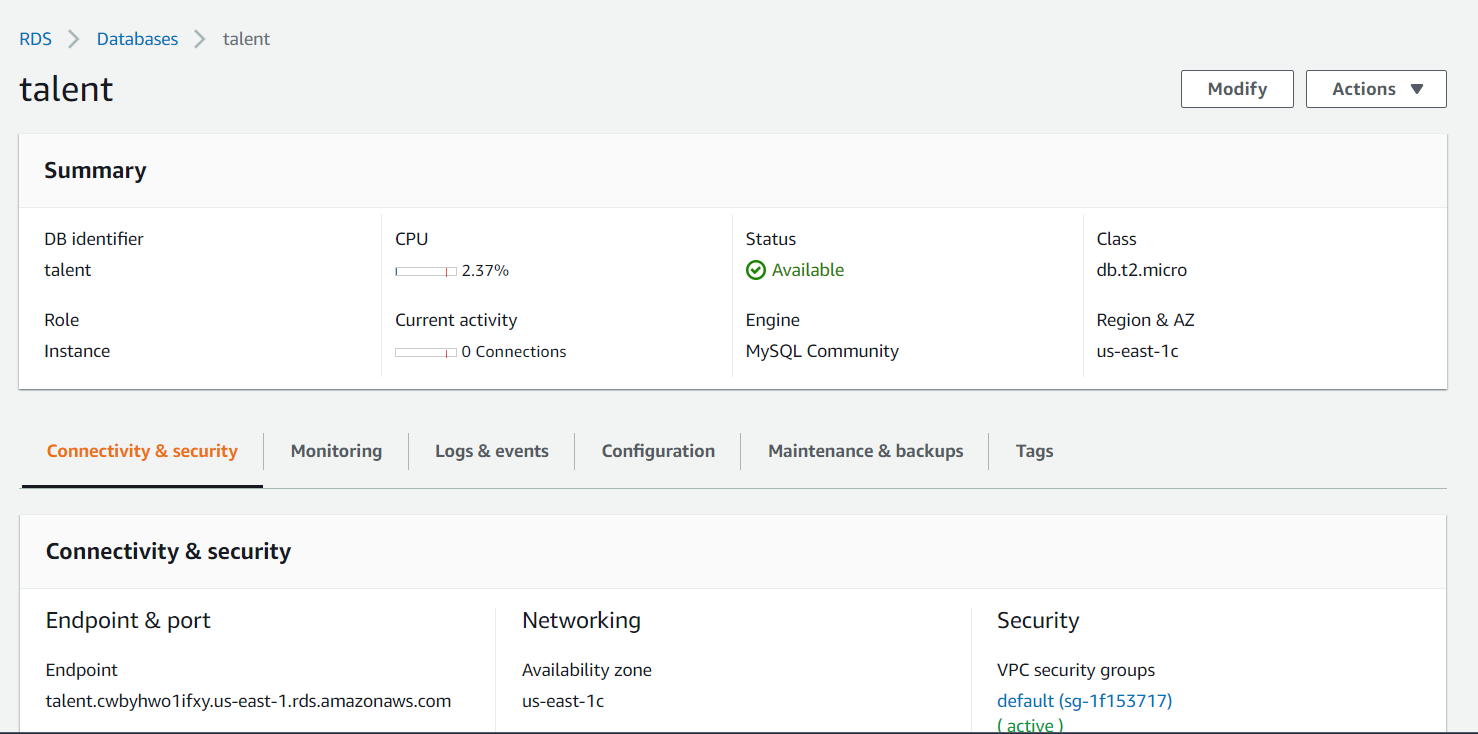


The log in method is set to Email/Password

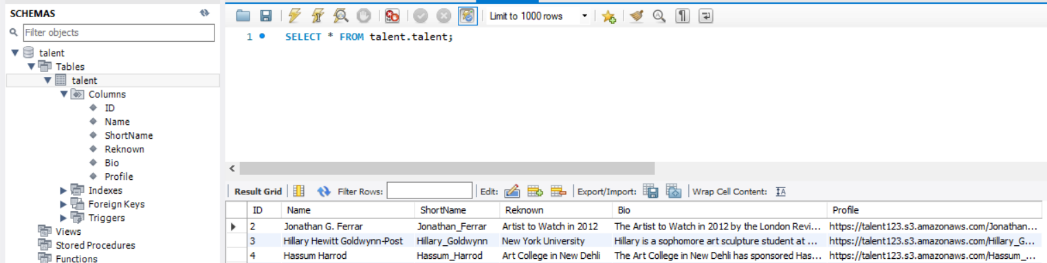


The identities are contained and management inside the platform

* 1. Amazon S3 (Image Storage)
  2. Amazon RDS (SQL Database)

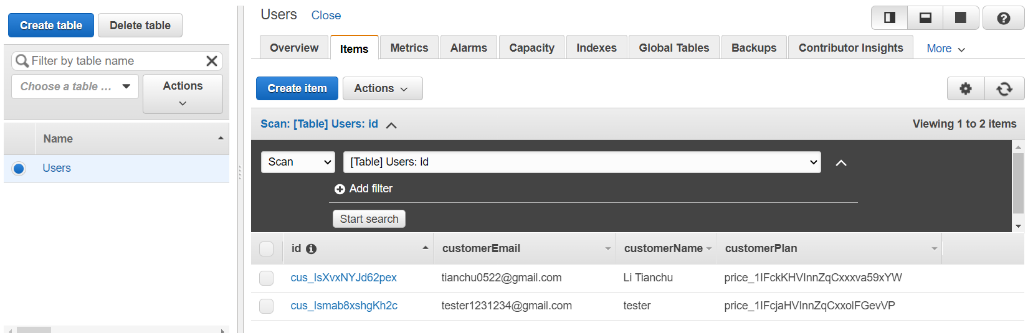


The MySQL database that is running on RDS



The columns in the talent table, it is used to support CRUD operations for the talent

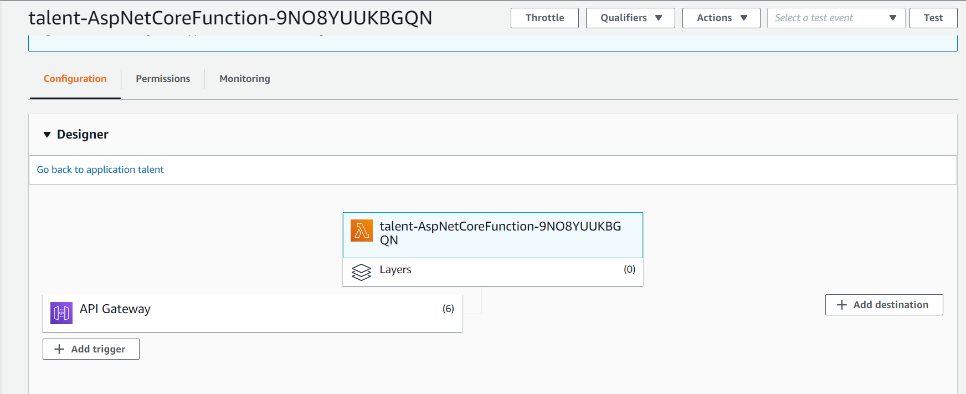
* 1. Amazon DynamoDB (No-SQL Database)



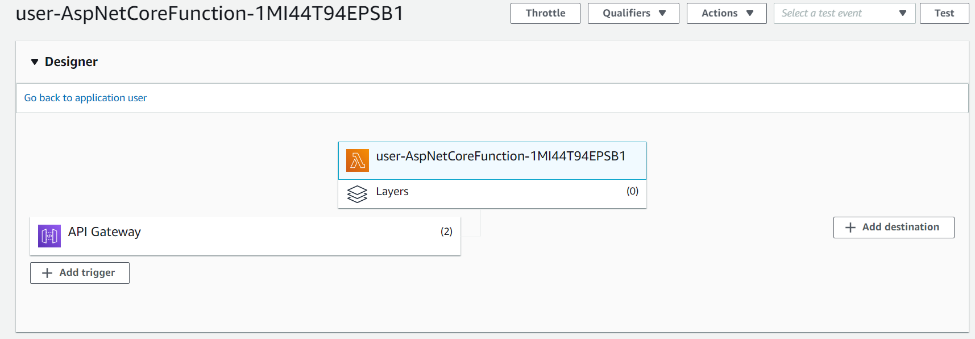
The NO-SQL database that is running on DynamoDB, to store the User related information.

* 1. Amazon Redshift (Data Warehouse)
  2. Amazon Lambda (API Hosting)

For refactoring the application to have serverless architecture

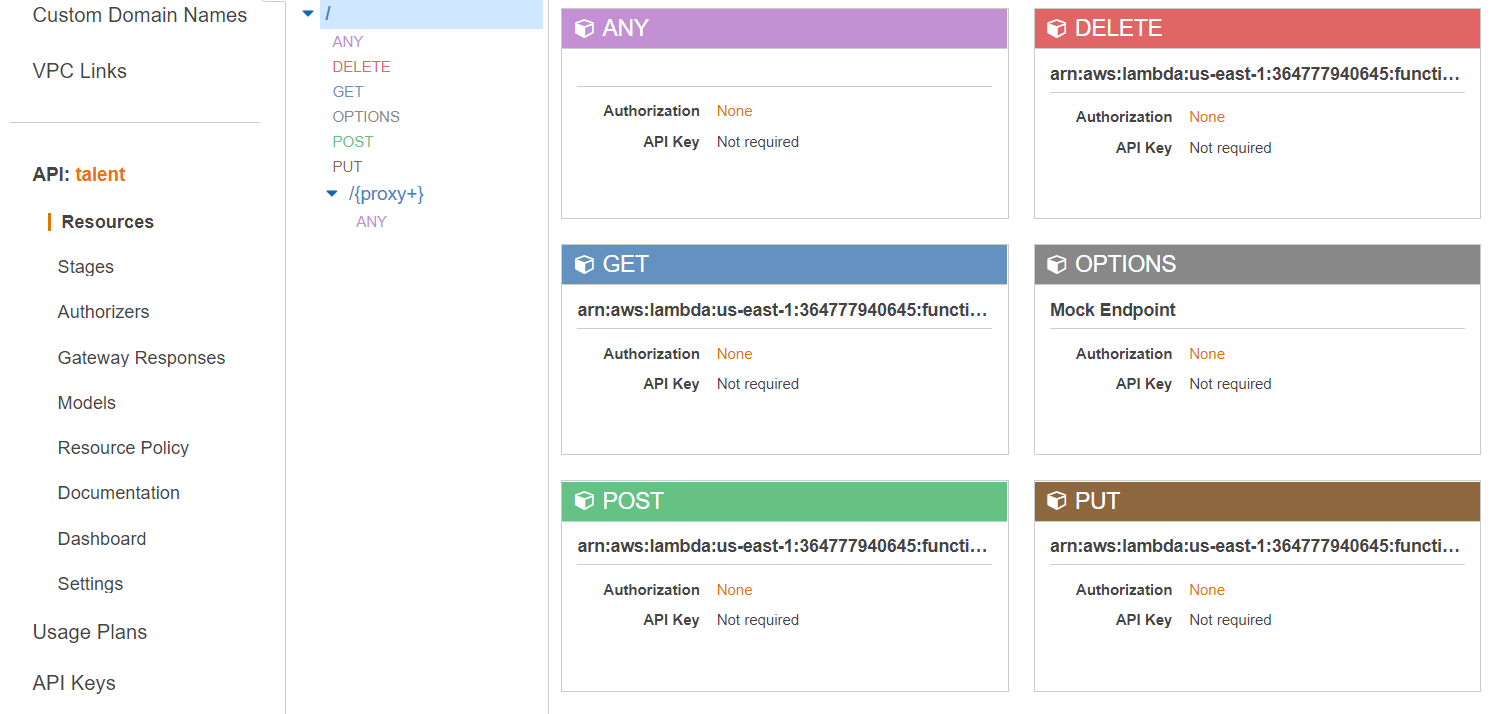


The Talent API endpoint**(url: https://rcfl5otx2c.execute-api.us-east-1.amazonaws.com/Prod)** that is hosted on Lambda

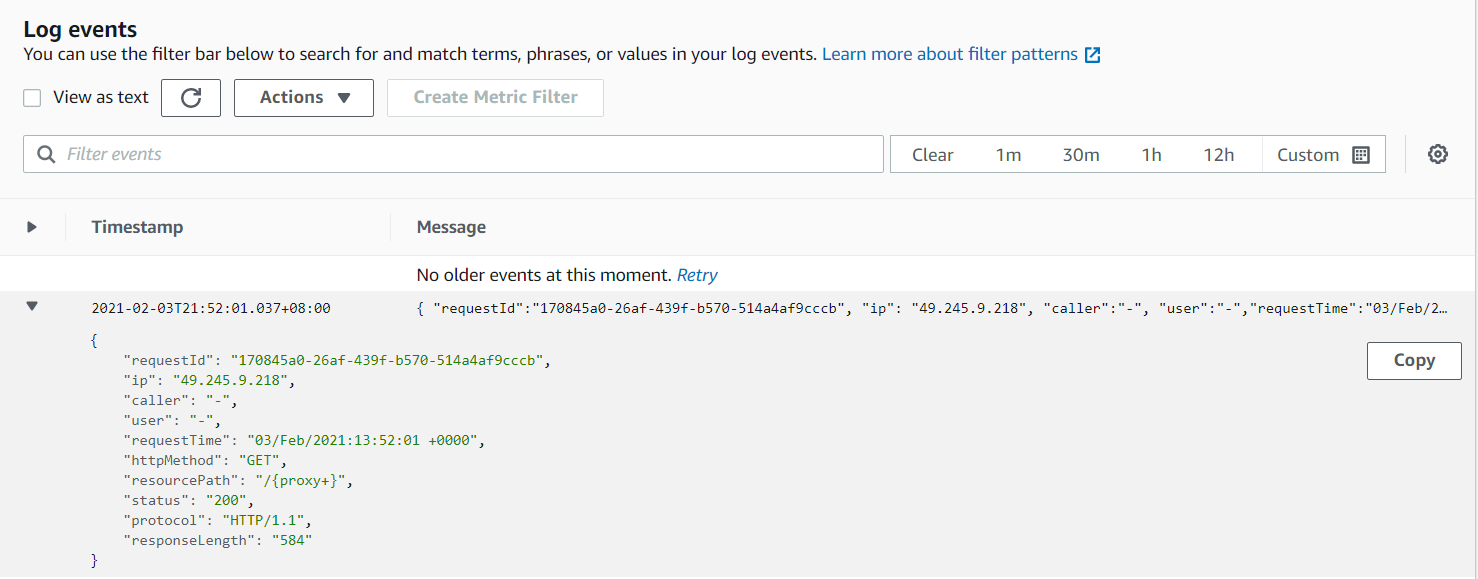


The User API endpoint**(url: https://p6aplnpyw8.execute-api.us-east-1.amazonaws.com/Prod)** that is hosted on Lambda

* 1. Amazon API Gateway & CloudWatch (API Management and Logging)

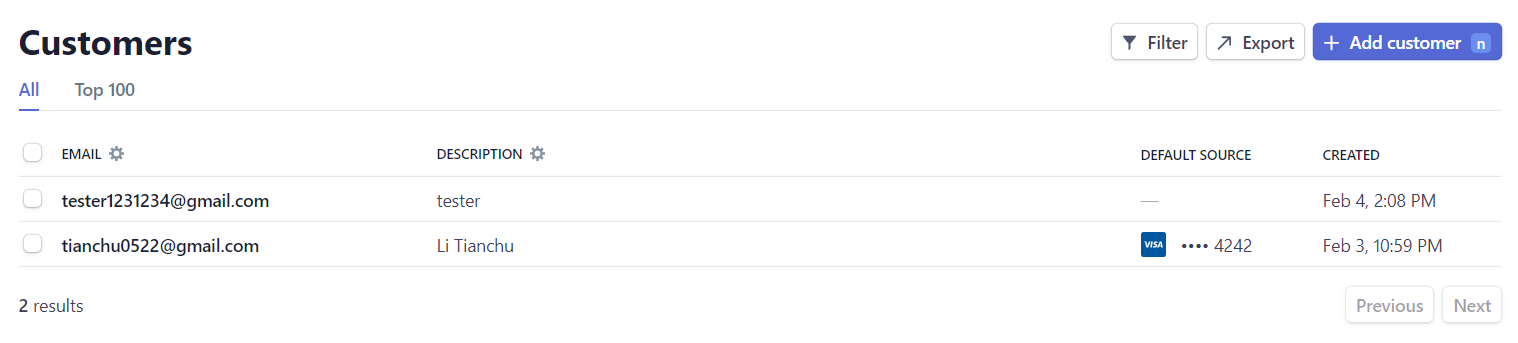


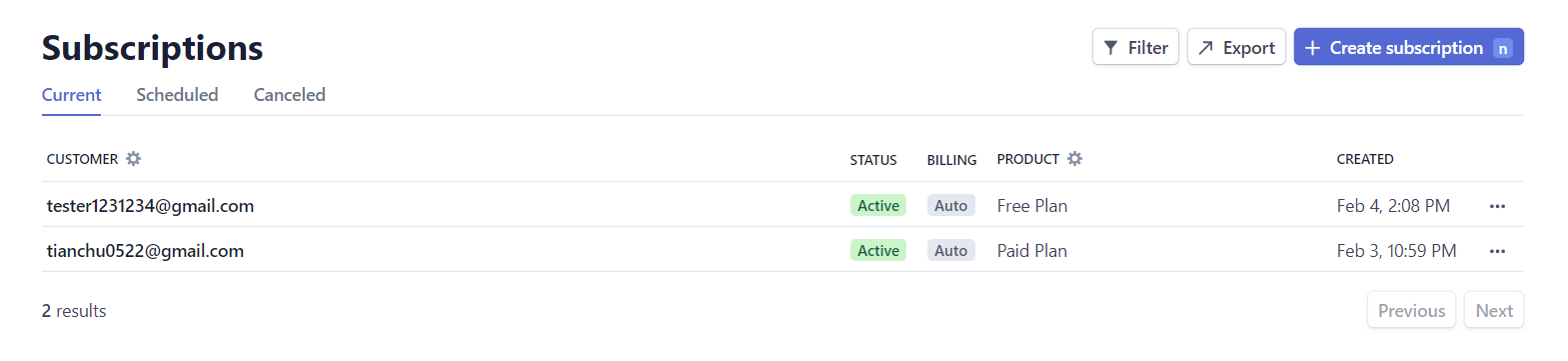
API gateway that monitors the various operations on the Talent API



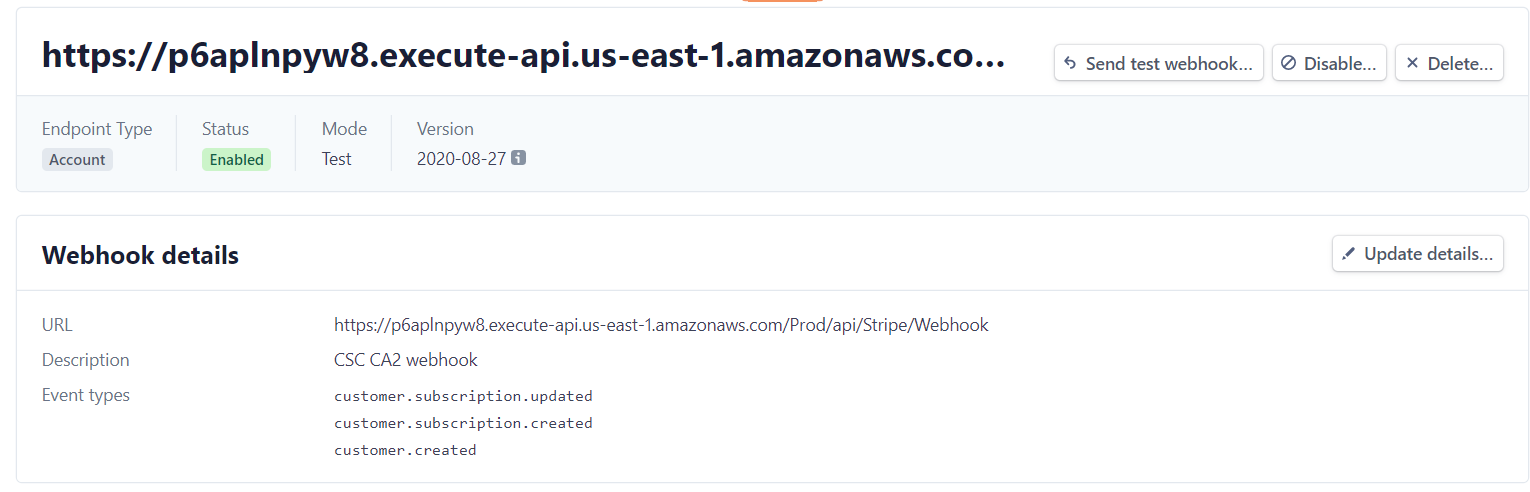
The Source IP, httpMethod, Status code, Response Time, Response Length are monitored and recorded by CloudWatch.

* 1. Clarifai (Image Recognition)
  2. Stripe (Payment Management)

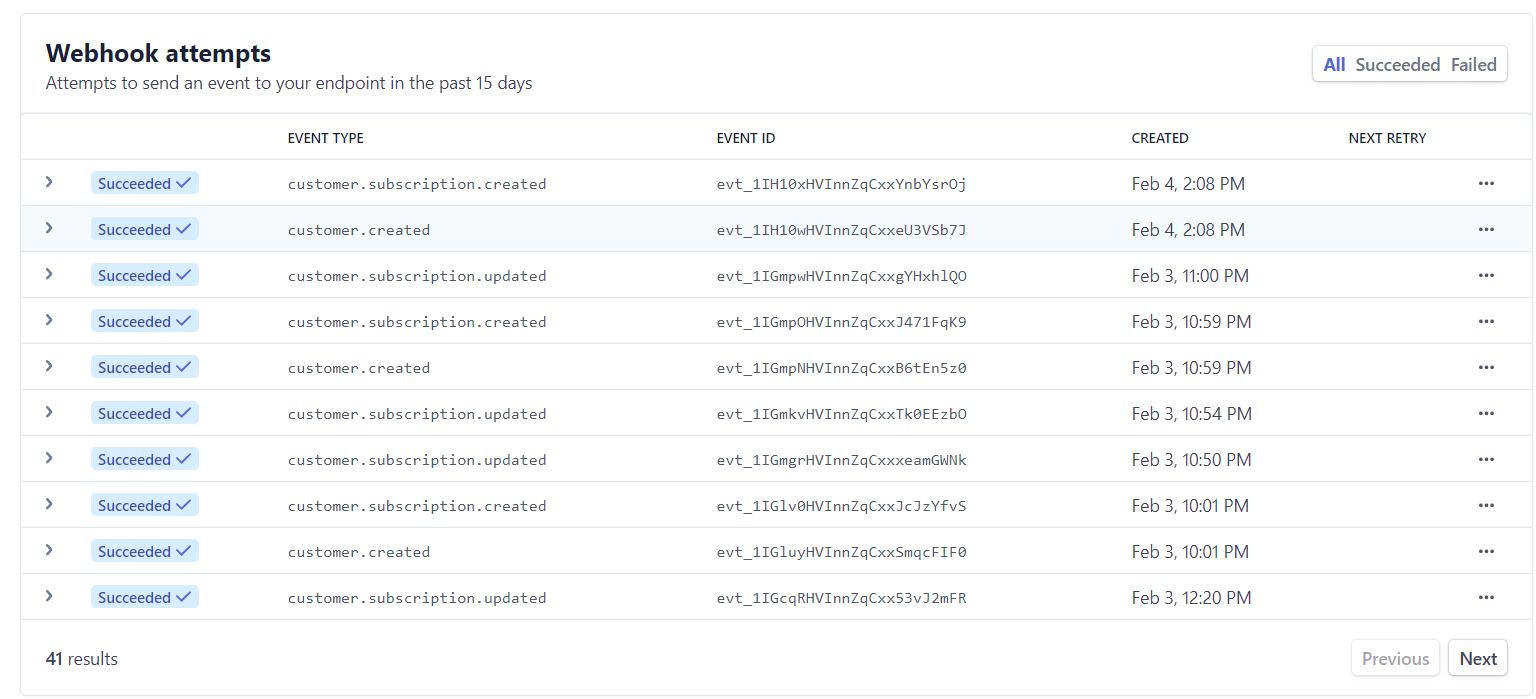




Customers and their subscriptions are managed in the Stripe Dashboard.



The webhook that listens to the webhook endpoint <https://p6aplnpyw8.execute-api.us-east-1.amazonaws.com/Prod/api/Stripe/Webhook>



The events that are recorded including: customer.created, customer.subscription.created, customer.subscription.updated

* 1. Disqus (Discussion Management)
  2. Recombee (Recommendation)

1. Cross Browser Testing
2. API Documentation
   1. GetAllTalent

|  |  |
| --- | --- |
| API | GetAllTalent |
| Endpoint | https://rcfl5otx2c.execute-api.us-east-1.amazonaws.com/Prod |
| URL | /api/Talent/GetAllTalent |
| Method | GET |
| Query Params | / |
| Body(Type:Json) | / |
| Success Status Code | 200 |
| Response Json Sample | [      {          "id": 2,          "name": "Jonathan G. Ferrar",          "shortName": "Jonathan\_Ferrar",          "profile": "https://talent123.s3.amazonaws.com/Jonathan\_Ferrar\_tn.jpg",          "bio": "The Artist to Watch in 2012 by the London Review, Johnathan 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",          "reknown": "Artist to Watch in 2012"      },      {          "id": 3,          "name": "Hillary Hewitt Goldwynn-Post",          "shortName": "Hillary\_Goldwynn",          "profile": "https://talent123.s3.amazonaws.com/Hillary\_Goldwynn\_tn.jpg",          "bio": "Hillary is a sophomore art sculpture student at New York University, and has already won all the major international prizes for new sculptors, including the Divinity Circle, the International Sculptor's Medal, and the Academy of Paris Award. Hillary's CAC exhibit features 25 abstract watercolor paintings that contain only water images including waves, deep sea, and river.",          "reknown": "New York University"      },  ] |
| Screen Shot |  |

* 1. GetTalentById

|  |  |
| --- | --- |
| API | GetTalentById |
| EndPoint | https://rcfl5otx2c.execute-api.us-east-1.amazonaws.com/Prod |
| URL | /api/Talent/GetTalentById/{id:int} |
| Method | GET |
| Query Params | / |
| Body(Type:Json) | / |
| Success Status Code | 200 |
| Response Json Sample | {      "id": 2,      "name": "Jonathan G. Ferrar",      "shortName": "Jonathan\_Ferrar",      "profile": "https://talent123.s3.amazonaws.com/Jonathan\_Ferrar\_tn.jpg",      "bio": "The Artist to Watch in 2012 by the London Review, Johnathan 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",      "reknown": "Artist to Watch in 2012"  } |
| Screen Shot |  |

* 1. PostTalent

|  |  |
| --- | --- |
| API | PostTalent |
| EndPoint | https://rcfl5otx2c.execute-api.us-east-1.amazonaws.com/Prod |
| URL | /api/Talent/PostTalent |
| Method | POST |
| Query Params | / |
| Body(Type:Json) | {  “Name”: “Example Name”,  “ShortName”: “Example”,  “Reknown”:”Example Reknown”,  “Bio”:”Example Bio”,  “Profile”:”http://example.com/example.jpg”  } |
| Success Status Code | 200 |
| Response Json Sample | / |
| Screen Shot |  |

* 1. PutTalent

|  |  |
| --- | --- |
| API | PutTalent |
| EndPoint | https://rcfl5otx2c.execute-api.us-east-1.amazonaws.com/Prod |
| URL | /api/Talent/PutTalent/{id:int} |
| Method | PUT |
| Query Params | / |
| Body(Type:Json) | {  “Name”: “Updated Name”,  “ShortName”: “Updated”,  “Reknown”:” Updated Reknown”,  “Bio”:” Updated Bio”,  “Profile”:”http://example.com/updatedexample.jpg”  } |
| Success Status Code | 200 |
| Response Json Sample | / |
| Screen Shot |  |

* 1. DeleteTalent

|  |  |
| --- | --- |
| API | DeleteTalent |
| EndPoint | https://rcfl5otx2c.execute-api.us-east-1.amazonaws.com/Prod |
| URL | /api/Talent/DeleteTalent/{id:int} |
| Method | DELETE |
| Query Params | / |
| Body(Type:Json) | / |
| Success Status Code | 200 |
| Response Json Sample | / |
| Screen Shot |  |

* 1. GetUser

|  |  |
| --- | --- |
| API | GetUser |
| EndPoint | https://p6aplnpyw8.execute-api.us-east-1.amazonaws.com/Prod |
| URL | /api/DynamoDb/GetUser |
| Method | GET |
| Query Params | customerId : string |
| Body(Type:Json) | / |
| Success Status Code | 200 |
| Response Json Sample | {      "users": [          {              "id": "cus\_IsXvxNYJd62pex",              "customerEmail": "tianchu0522@gmail.com",              "customerName": "Li Tianchu",              "plan": "price\_1IFckKHVInnZqCxxxva59xYW"          }      ]  } |
| Screen Shot |  |

* 1. AddUser

|  |  |
| --- | --- |
| API | AddUser |
| EndPoint | https://p6aplnpyw8.execute-api.us-east-1.amazonaws.com/Prod |
| URL | /api/DynamoDb/AddUser |
| Method | POST |
| Query Params | customerId: string  email: string  name: string  plan: string |
| Body(Type:Json) | / |
| Success Status Code | 200 |
| Response Json Sample | / |
| Screen Shot |  |

* 1. UpdateUser

|  |  |
| --- | --- |
| API | UpdateUser |
| EndPoint | https://p6aplnpyw8.execute-api.us-east-1.amazonaws.com/Prod |
| URL | /api/DynamoDb/UpdateUser |
| Method | PUT |
| Query Params | customerId: string  plan: string |
| Body(Type:Json) | / |
| Success Status Code | 200 |
| Response Json Sample | {      "id": "cus\_example",      "customerEmail": **null**,      "customerName": **null**,      "plan": "updatedPlan"  } |
| Screen Shot |  |

* 1. GetAllProducts

|  |  |
| --- | --- |
| API | GetAllProducts |
| EndPoint | http://thelifetimetalents-dev.us-east-1.elasticbeanstalk.com |
| URL | /stripe/GetAllProducts |
| Method | GET |
| Query Params | / |
| Body(Type:Json) | / |
| Success Status Code | 200 |
| Response Json Sample | {      "contentType": **null**,      "serializerSettings": **null**,      "statusCode": **null**,      "value": [          {              "id": "prod\_IrLRYTKAywOcaJ",              "priceId": "price\_1IFckKHVInnZqCxxxva59xYW",              "name": "Paid Plan",              "amount": 10          },          {              "id": "prod\_IrLQrqavLCirBD",              "priceId": "price\_1IFcjaHVInnZqCxxolFGevVP",              "name": "Free Plan",              "amount": 0          }      ]  } |
| Screen Shot |  |

* 1. GetSubscription

|  |  |
| --- | --- |
| API | GetSubscription |
| EndPoint | http://thelifetimetalents-dev.us-east-1.elasticbeanstalk.com/ |
| URL | /stripe/GetSubscription |
| Method | GET |
| Query Params | customerId : string |
| Body(Type:Json) | / |
| Success Status Code | 200 |
| Response Json Sample | {      "contentType": **null**,      "serializerSettings": **null**,      "statusCode": **null**,      "value": [          {              "id": "sub\_IsXvzfDc6kQ0kH",              "prodId": "prod\_IrLRYTKAywOcaJ",              "priceId": "price\_1IFckKHVInnZqCxxxva59xYW"          }      ]  } |
| Screen Shot |  |

* 1. GetCustomer

|  |  |
| --- | --- |
| API | GetCustomer |
| EndPoint | http://thelifetimetalents-dev.us-east-1.elasticbeanstalk.com/ |
| URL | /stripe/GetCustomer |
| Method | GET |
| Query Params | email : string |
| Body(Type:Json) | / |
| Success Status Code | 200 |
| Response Json Sample | {      "contentType": **null**,      "serializerSettings": **null**,      "statusCode": **null**,      "value": [          {              "id": "cus\_IsXvxNYJd62pex",              "name": "Li Tianchu",              "amount": 1000          }      ]  } |
| Screen Shot |  |

* 1. AddCustomer

|  |  |
| --- | --- |
| API | Add Customer |
| EndPoint | http://thelifetimetalents-dev.us-east-1.elasticbeanstalk.com/ |
| URL | /stripe/AddCustomer |
| Method | POST |
| Query Params | email:string  name:string |
| Body(Type:Json) | / |
| Success Status Code | 200 |
| Response Json Sample | / |
| Screen Shot |  |

1. System Diagram