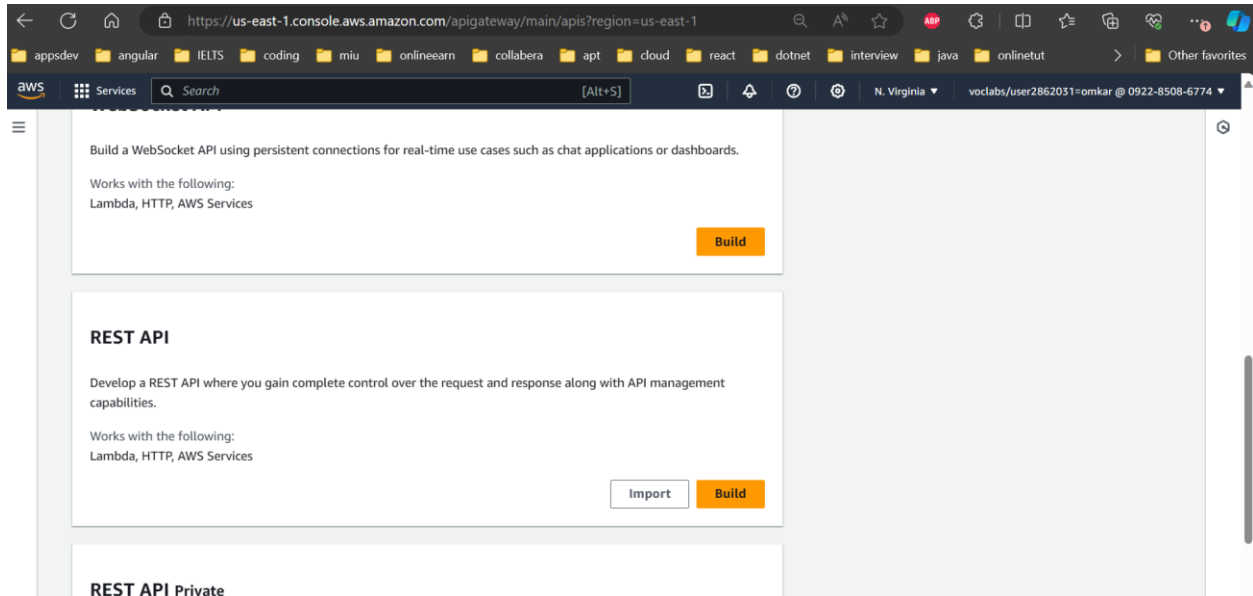


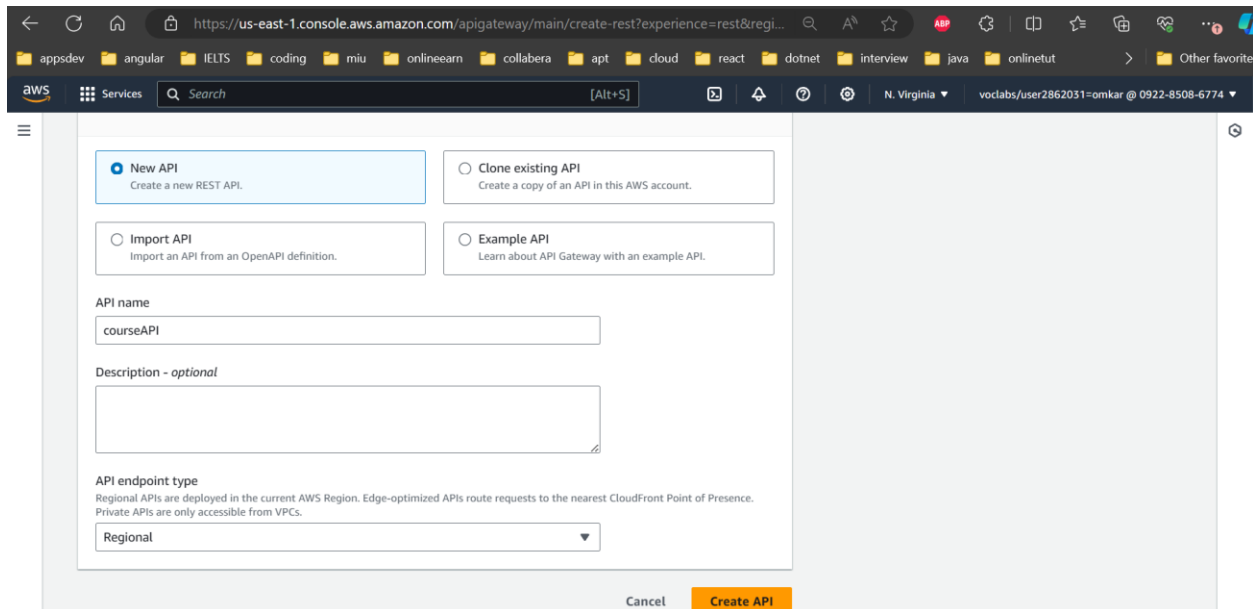
Lab 9

PART I – Lambda and DynamoDB [is already done in the assignment 7]

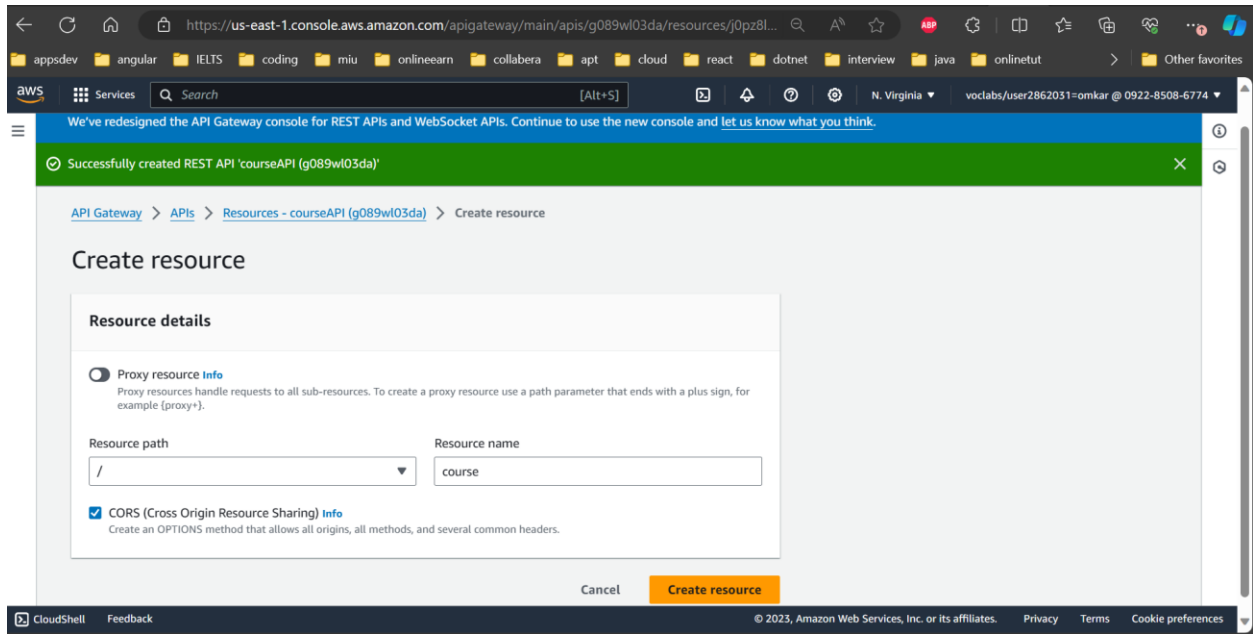
Step1: create API Gateway



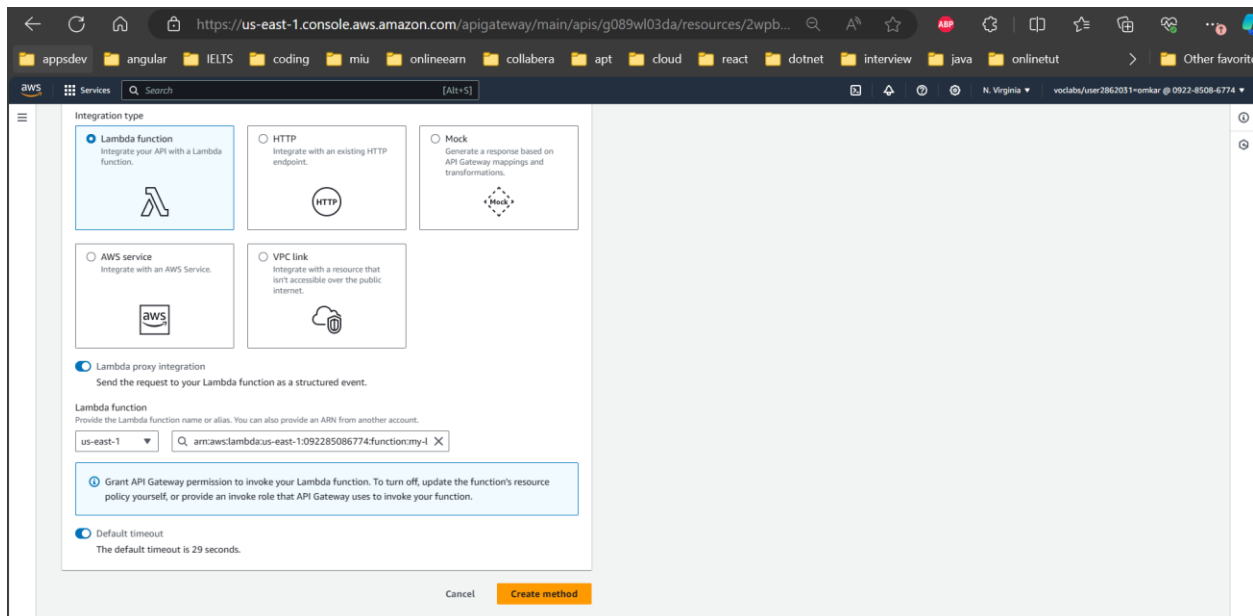
Step2: create new API and provide courseApi name.



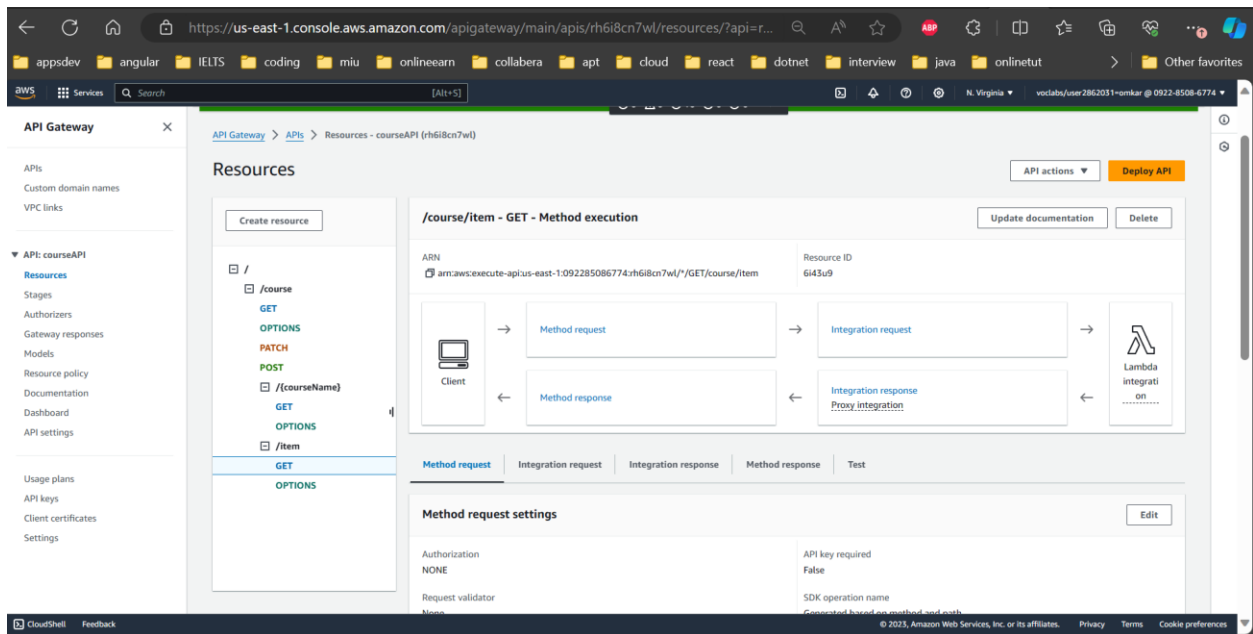
Step3: create resource.



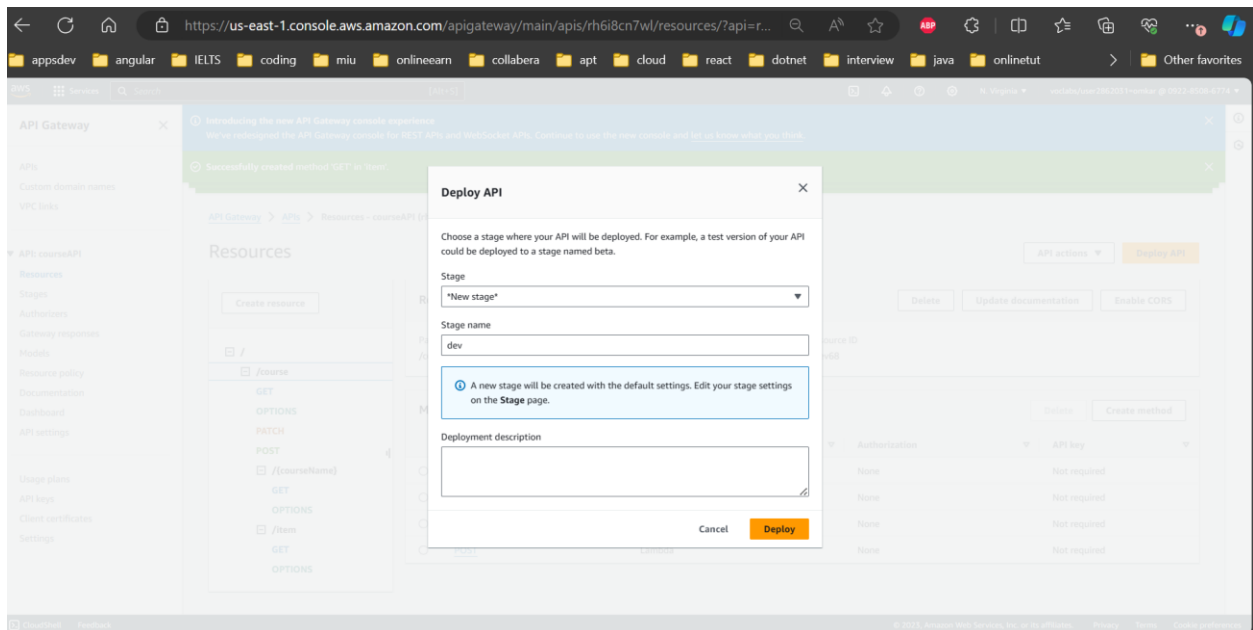
Step4: create method.



Step5: create all resource and method as shown in fig.



Step6: create stage and deploy api.



Step7: Test with postman.

Step 7a. GET request for /course

Home Workspaces API Network Search Postman

Your data from Bot team will soon be available in your personal workspaces. You'll be notified via email once it's ready.

My Workspace New Import Overview GET https://rh6i8cn7wl.execute-api.us-east-1.amazonaws.com/dev/course No Environment

Collections +
Geneee
New Collection
GET New Request

Environments
History

https://rh6i8cn7wl.execute-api.us-east-1.amazonaws.com/dev/course Save

GET https://rh6i8cn7wl.execute-api.us-east-1.amazonaws.com/dev/course Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Query Params

Key	Value	Description	Bulk Edit
Key	Value	Description	

Body Cookies Headers (7) Test Results 200 OK 2.88 s 666 B Save as example

Pretty Raw Preview Visualize JSON

```
1 [{"response":{"$metadata":{"statusCode":200,"requestId":"2039AJG020E55H8F3HG48663VV4KQNS05AEMVJF6609ASUAAJG","attempts":1,"totalRetryDelay":0},"Count":1,"Items":[{"month":{"N":"10"},"teacherName":{"S":"Unubold"},"year":{"N":"2023"},"courseCode":{"S":"CS101"},"students":{"SS":["Alice","Bob"]},"courseName":{"S":"Cloud Computing"}},{"ScannedCount":1}]}
```

Online Find and replace Console Postbot Runner Start Proxy Cookies Trash

Step 7a. GET request for /course/item

Home Workspaces API Network Search Postman

Your data from Bot team will soon be available in your personal workspaces. You'll be notified via email once it's ready.

My Workspace New Import Overview GET New Request No Environment

Collections +
Geneee
New Collection
GET New Request

Environments
History

New Collection / New Request Save

GET https://rh6i8cn7wl.execute-api.us-east-1.amazonaws.com/dev/course/item?courseCode=CS101&teacherName=Unubold Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Query Params

Key	Value	Description	Bulk Edit
<input checked="" type="checkbox"/> courseCode	CS101		
<input checked="" type="checkbox"/> teacherName	Unubold		
Key	Value	Description	

Body Cookies Headers (7) Test Results 200 OK 433 ms 631 B Save as example

Pretty Raw Preview Visualize JSON

```
10 "month": {  
11   "N": "10"  
12 },  
13 "teacherName": {  
14   "S": "Unubold"  
15 },  
16 "year": {
```

Online Find and replace Console Postbot Runner Start Proxy Cookies Trash

Step 7a. GET request for /course/{courseCode}

① Your data from Bot team will soon be available in your personal workspaces. You'll be notified via email once it's ready.

My Workspace New Import Overview GET New Request + No Environment

Collections + ≡ ...

- Geneee
- New Collection
 - GET New Request

Environments

History

New Collection / New Request Save ✎ 🗨 📄

GET ▼ https://rh6i8cn7wl.execute-api.us-east-1.amazonaws.com/dev/course/CS101 Send ▼

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies </>

Query Params

Key	Value	Description	...	Bulk Edit
Key	Value	Description		

Body Cookies Headers (7) Test Results 📶 200 OK 240 ms 666 B 📄 Save as example ...

Pretty Raw Preview Visualize JSON ▼ ≡

```

9  {
10  "count": 1,
11  "items": [
12    {
13      "month": {
14        "N": "10"
15      },
16      "teacherName": {

```

Online Find and replace Console Postbot Runner Start Proxy Cookies Trash

Step 7a. POST request for /course

① Your data from Bot team will soon be available in your personal workspaces. You'll be notified via email once it's ready.

My Workspace New Import Overview POST New Request + No Environment

Collections + ≡ ...

- Geneee
- New Collection
 - GET New Request

Environments

History

New Collection / New Request Save ✎ 🗨 📄

POST ▼ https://rh6i8cn7wl.execute-api.us-east-1.amazonaws.com/dev/course Send ▼

Params Authorization Headers (9) Body ● Pre-request Script Tests Settings Cookies Beautify </>

● none ● form-data ● x-www-form-urlencoded ● raw ● binary ● GraphQL ▼ JSON ▼

```

1  {
2    "courseCode": "CS102",
3    "courseName": "Advance Java",
4    "teacherName": "Omkar",
5    "students": ["Alice", "Bob"],
6    "month": 10,

```

Body Cookies Headers (7) Test Results 📶 200 OK 232 ms 460 B 📄 Save as example ...

Pretty Raw Preview Visualize JSON ▼ ≡

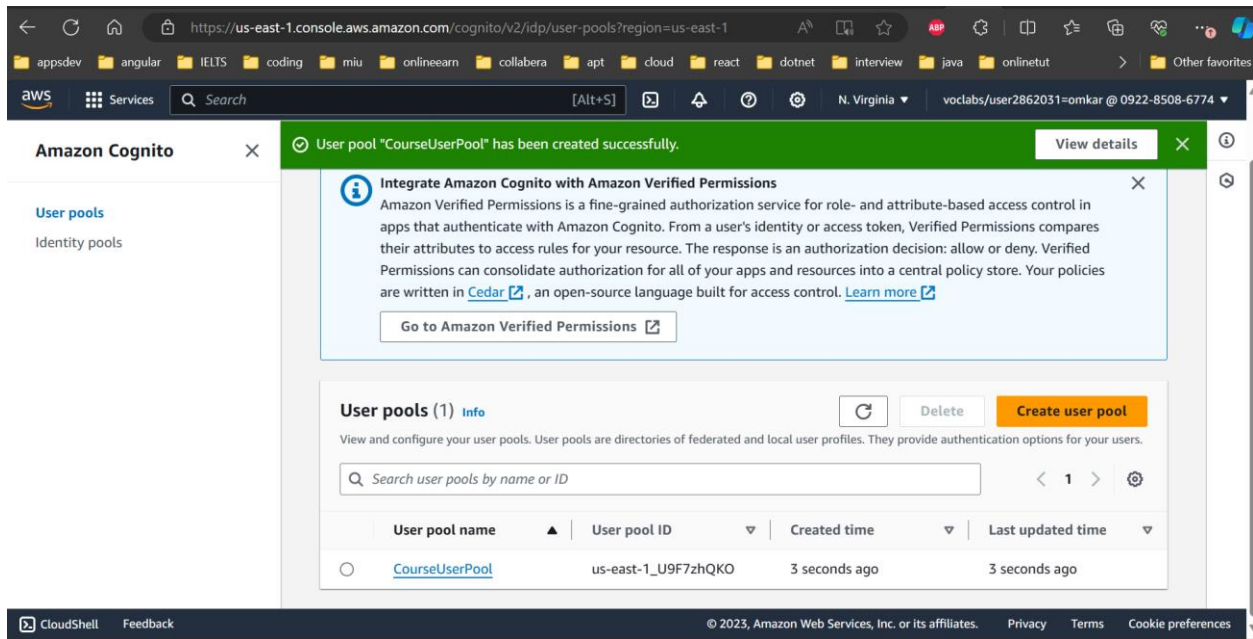
```

1  {
2    "response": {
3      "$metadata": {
4        "statusCode": 200,
5        "requestId": "IM50S0IV14HP9B2J3I1U4FP12RVV4KQNS05AEMV3F66Q9ASUAAJG",
6        "attempts": 1,
7        "totalRetryDelay": 0

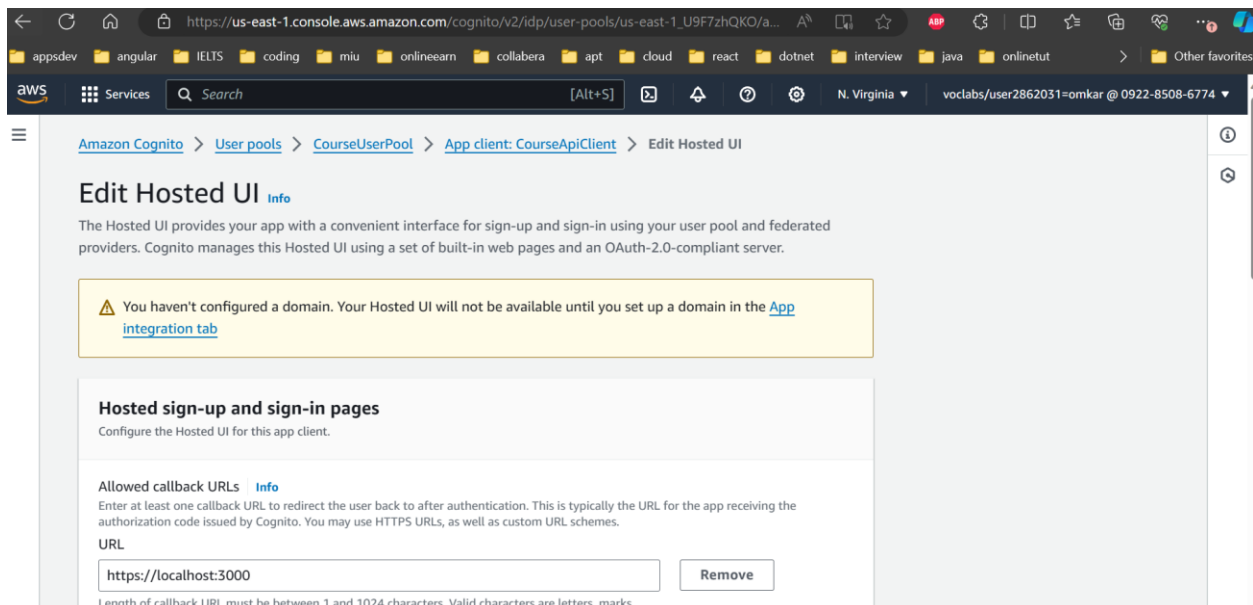
```

PART II - API gateway and Cognito

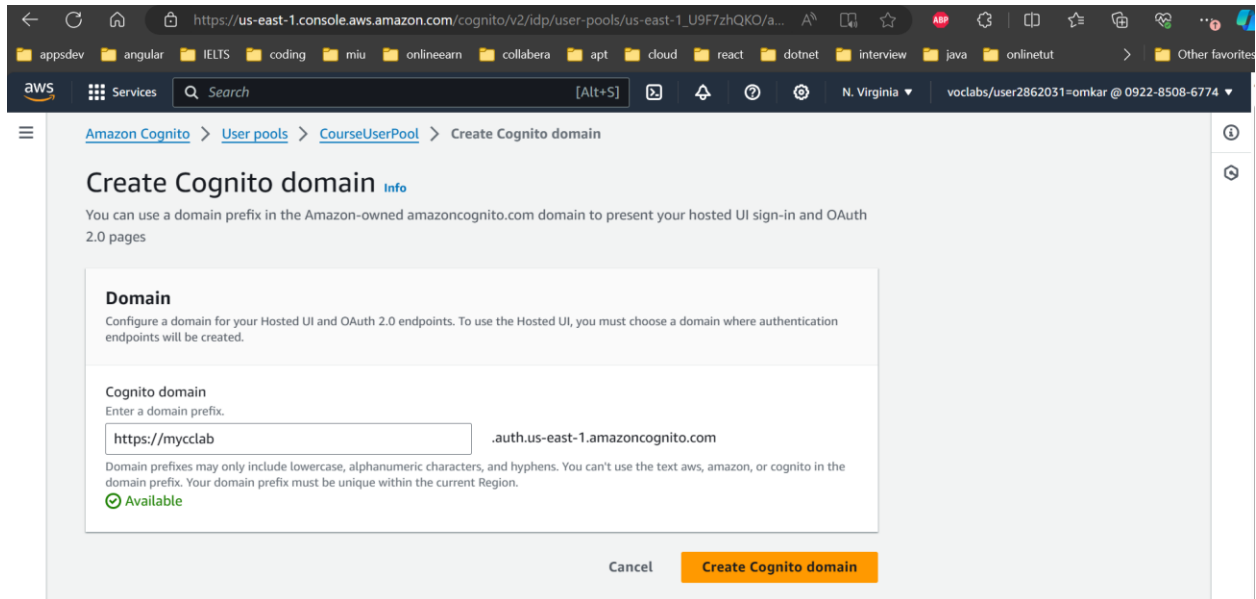
Step1: create User pool



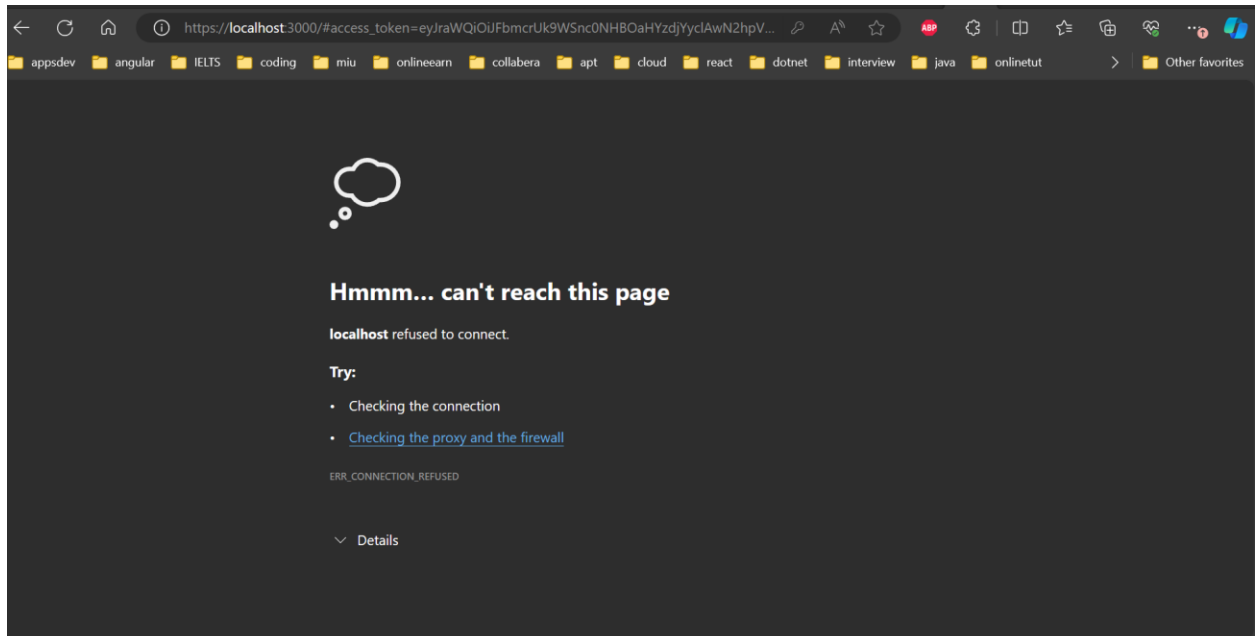
Step2: Configure the Hosted UI, select the implicit grant on auth type and openId and aws.congnito.signin.user.admin



Step3: create Cognito domain



Step4: Launch the hosted UI , signup and sign in to get the id_token and access_token in callback url.



Step5: Create Authorizer

Authorizer details

Authorizer name
CourseAuthorizer

Authorizer type [Info](#)
Choose to authorize your API calls using one of your Lambda functions or a Cognito User Pool.

☐ Lambda
☒ Cognito

Cognito user pool
Select the Cognito user pool that will authenticate requests to your API.

us-east-1

Token source
Enter the header that contains the authorization token.
Authorization

Token validation - optional
Enter a regular expression to validate tokens.

Cancel Create authorizer

Step6: adding authorizer to the method.

API Gateway > APIs > Resources - courseAPI (rh6i8cn7wl) > Edit method request

Edit method request

Method request settings

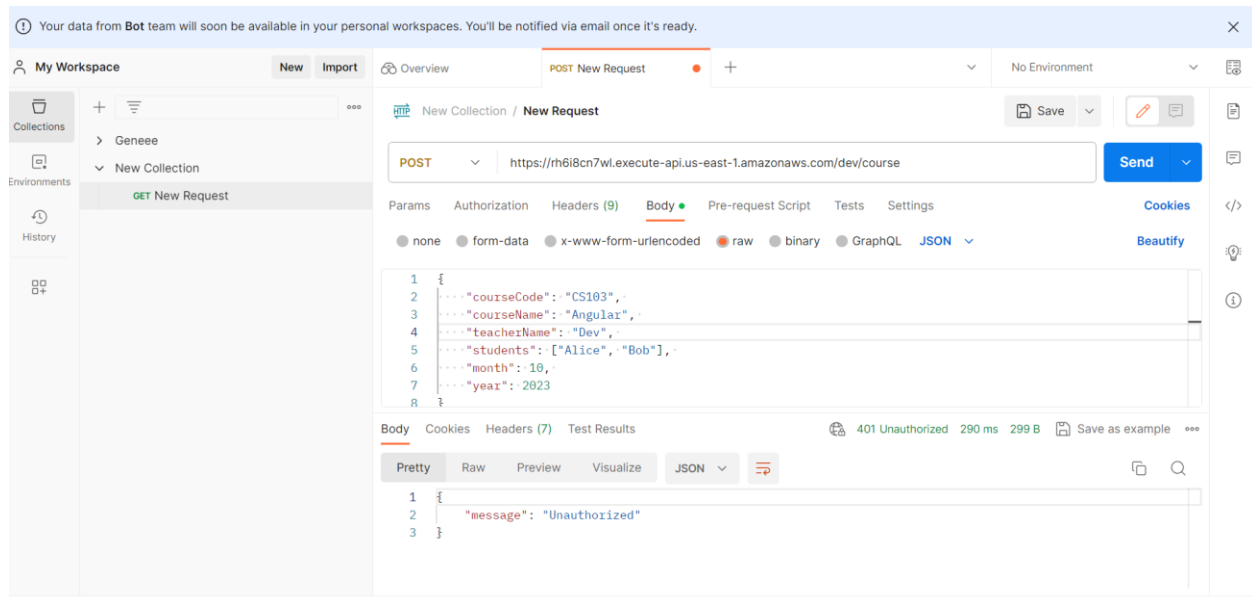
Authorization
CourseAuthorizer

Authorization Scopes
 Add

Request validator
None

☐ API key required

Step7: Test for Unauthorized



Step5: after authorize(id_token)

