Spring boot API deployment via pipeline in ECS

Local setup

- Created spring boot book project from STS IDE or spring initializer https://start.spring.io/
- Added web, data jpa , h2, open api ui dependency
- Adde get books, get book by id, update book and delete book API and configured h2 in file database
- Run spring boot app and test in local

Git and GitHub repository

Add local repo to github - https://github.com/dnayenshwar-kale/books

```
git init

git add --no-warn-embedded-repo .

git commit -m "first commit"

git branch -M master

git remote add origin https://github.com/dnayenshwar-kale/books.git

git push -u origin master
```

Run spring boot API and test

```
java -jar target/books-0.0.1-SNAPSHOT.jar  or   mvn spring-boot:run
```

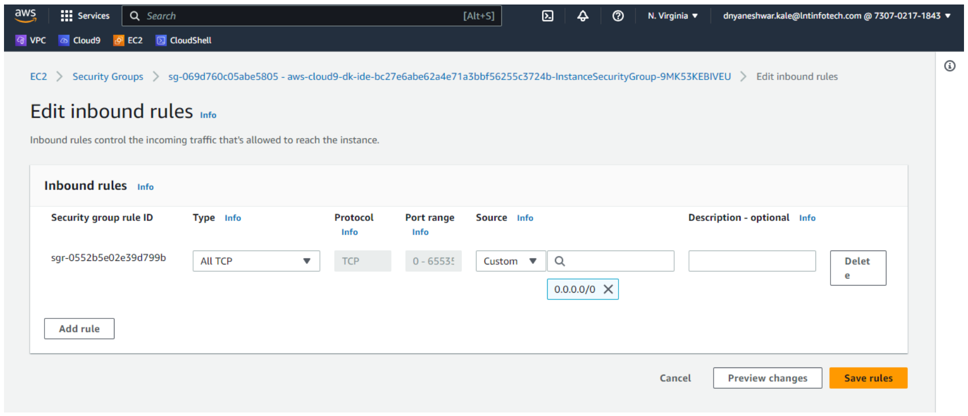
test using swagger ui http://localhost:8080/swagger-ui/index.html

Run app on Cloud9 IDE

Cloud9 setup

Create cloud9 IDE

Go to EC2 and edit inbound rule for SG



EC2 > Security Groups > sg-069d760c05abe5805 - aws-cloud9-dk-ide-bc27e6abe62a4e71a3bbf56255c3724b-InstanceSecurityGroup-9MK53KEBIVEU > Edit inbound rules

Edit inbound rules Info

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules Info

Security group rule ID	Type	Protocol	Port range	Source	Description - optional
sgr-0552b5e02e39d799b	All TCP	TCP	0 - 65535	Custom 0.0.0.0/0	

```
git clone https://github.com/dnayenshwar-kale/books.git
sudo yum install maven
Updated pom.xml to maven compatibility fix with cloud9
mvn clean install
mvn spring-boot:run
#for Created new branch aws_cloud9 https://github.com/dnayenshwar-kale/books/tree/aws_cloud9
git checkout -b aws_cloud9
git add  .
git commit -m "inital commit for aws cloud9 compatible"
git push origin aws_cloud9
```

Run spring boot API and test

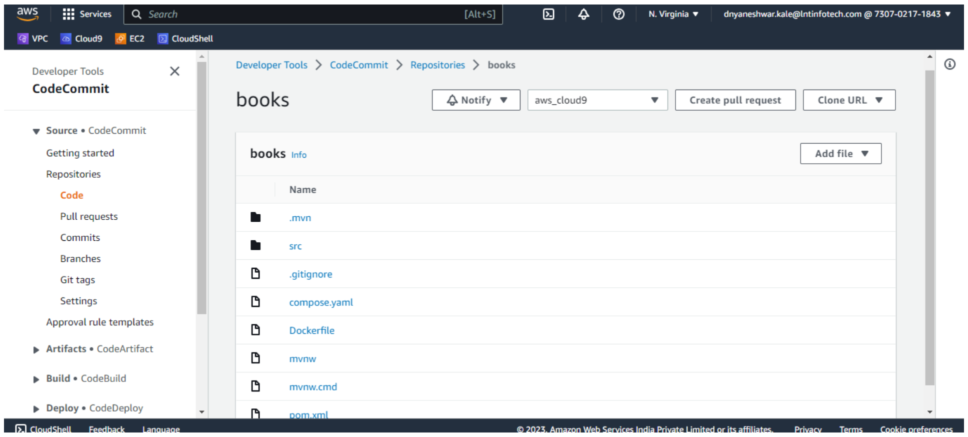
```
java -jar target/books-0.0.1-SNAPSHOT.jar  or   mvn spring-boot:run
```

Test using swagger ui https://bc27e6abe62a4e71a3bbf56255c3724b.vfs.cloud9.us-east-1.amazonaws.com/swagger-ui/index.html

Push to aws code commit

Create repo books git clone https://git-codecommit.us-east-1.amazonaws.com/v1/repos/books

```
git remote set-url origin https://git-codecommit.us-east-1.amazonaws.com/v1/repos/books
git push -u origin  aws_cloud9
```



books

books Info

Name
.mvn
src
.gitignore
compose.yaml
Dockerfile
mvnw
mvnw.cmd
pom.xml

Docker build, run and push to Aws ECR

```
# Build the image with the tag spring-boot-app:latest

docker build -t books.jar:latest  .

#Get list of images for local docker repo

docker image ls

# run a Docker image as a container

docker run books or sudo docker run books.jar -p 8080:80

# to run book.jar image as a container named book, in detached mode, with port 8080 mapped to port 80 on the host, with a volume mounted from /home/user/config on the host to /app/config on the container, and with a restart policy of always

docker run -d --name books -p 8080:80 -v /home/user/config:/app/config --restart=always books.jar

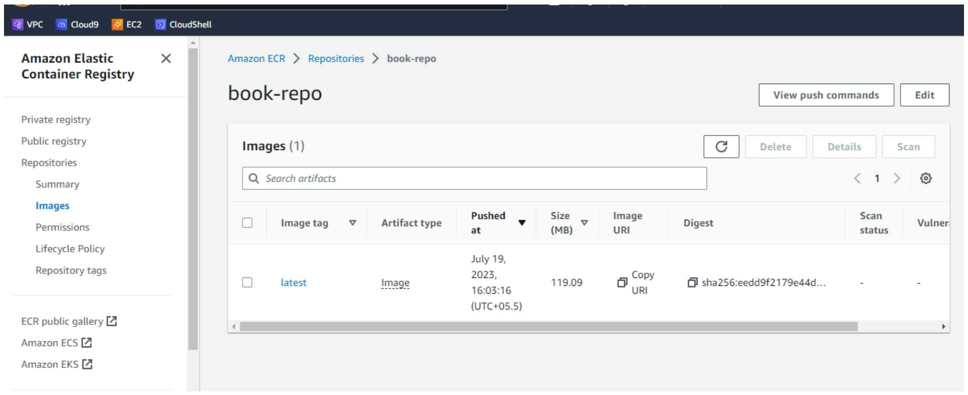
#find and kill running docker
```

```
docker ps

docker kill books



# Create an ECR repository named book-repo
aws ecr create-repository --repository-name book-repo --region us-
east-1
# Get the login password and login to ECR
docker login -u AWS -p $(aws ecr get-login-password --region us-east-
1) 730702171843.dkr.ecr.us-east-1.amazonaws.com
# Tag the image with the ECR repository URI
docker tag books.jar 730702171843.dkr.ecr.us-east-
1.amazonaws.com/book-repo
# Push the image to ECR
docker push 730702171843.dkr.ecr.us-east-1.amazonaws.com/book-repo
#push to docker hub
docker push dpkalehub/books:latest
```



book-repo

Images (1)

	Image tag	Artifact type	Pushed at	Size (MB)	Image URI	Digest	Scan status	Vulner
☐	latest	Image	July 19, 2023, 16:03:16 (UTC+05.5)	119.09	Copy URI	sha256:eedd9f2179e44d...	-	-

Push to aws code commit

Clone repo from git

git clone https://github.com/dnayenshwar-kale/books.git

Cd . .

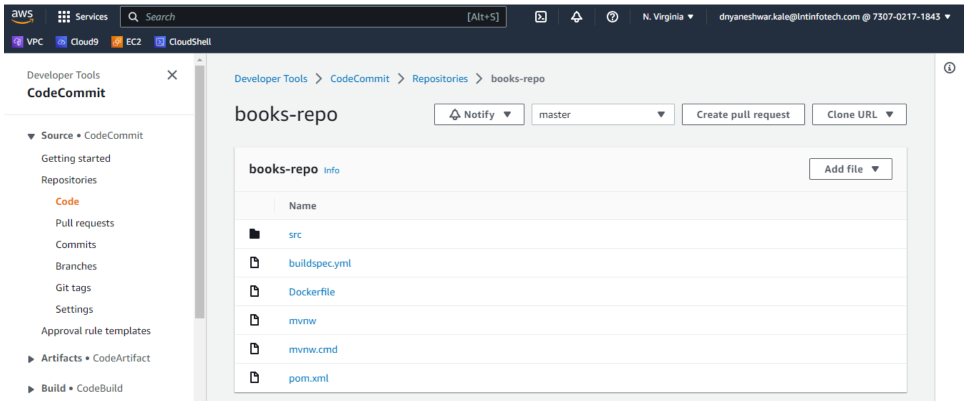
Create repo books and clone it

git clone https://git-codecommit.us-east-1.amazonaws.com/v1/repos/books-repo

Cd books-repo

Git add .

```
git commit -m "init"
git push -u origin  master
```

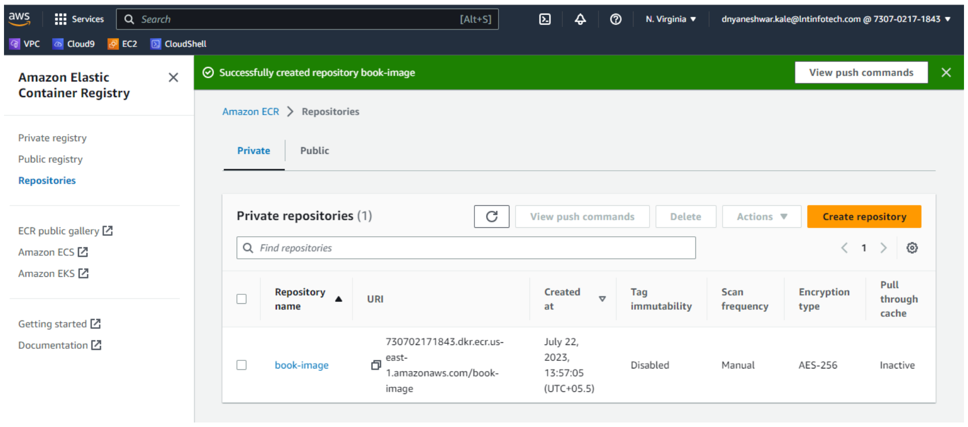


Developer Tools > CodeCommit > Repositories > books-repo

books-repo

Name
src
buildspec.yml
Dockerfile
mvnw
mvnw.cmd
pom.xml

Create ECR repo



Successfully created repository book-image

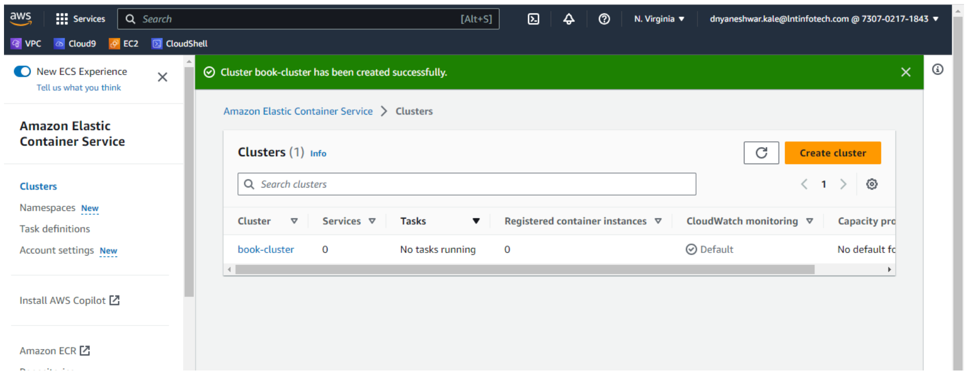
Amazon ECR > Repositories

Private repositories (1)

Repository name	URI	Created at	Tag immutability	Scan frequency	Encryption type	Pull through cache
book-image	730702171843.dkr.ecr.us-east-1.amazonaws.com/book-image	July 22, 2023, 13:57:05 (UTC+05.5)	Disabled	Manual	AES-256	Inactive

Prepare ECS env to deploy via pipeline

Create cluster



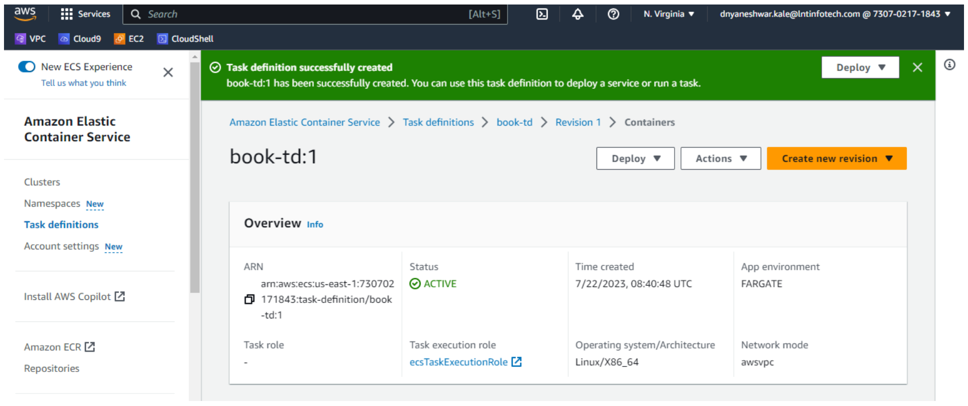
Cluster book-cluster has been created successfully.

Amazon Elastic Container Service > Clusters

Clusters (1)

Cluster	Services	Tasks	Registered container instances	CloudWatch monitoring	Capacity pro
book-cluster	0	No tasks running	0	Default	No default fc

Create task definition



Task definition successfully created
book-td:1 has been successfully created. You can use this task definition to deploy a service or run a task.

Amazon Elastic Container Service > Task definitions > book-td > Revision 1 > Containers

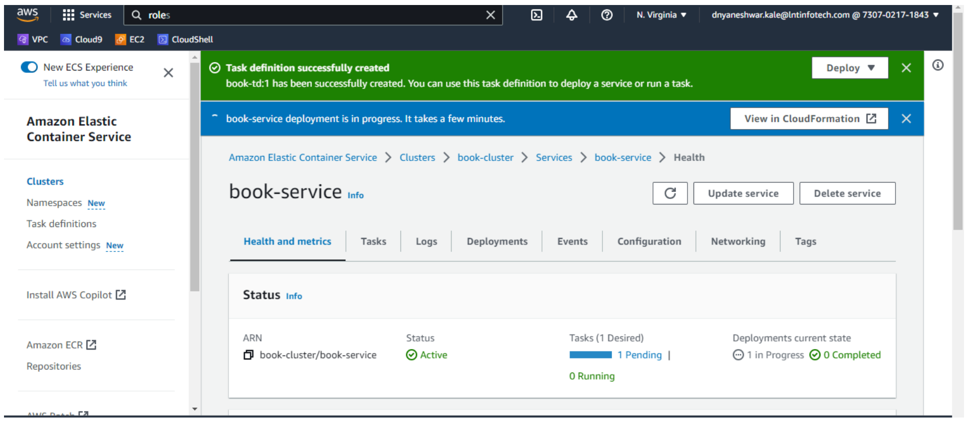
book-td:1

Overview

ARN	Status	Time created	App environment
arn:aws:ecs:us-east-1:730702171843:task-definition/book-td:1	ACTIVE	7/22/2023, 08:40:48 UTC	FARGATE

Task role	Task execution role	Operating system/Architecture	Network mode
-	ecsTaskExecutionRole	Linux/X86_64	awsvpc

Create service



Task definition successfully created
book-td:1 has been successfully created. You can use this task definition to deploy a service or run a task.

book-service deployment is in progress. It takes a few minutes.

Amazon Elastic Container Service > Clusters > book-cluster > Services > book-service > Health

book-service

Status

ARN	Status	Tasks (1 Desired)	Deployments current state
book-cluster/book-service	Active	1 Pending | 0 Running	1 in Progress 0 Completed

Create build project

1 for Sonar scan integration

https://aws.amazon.com/blogs/devops/integrating-sonarcloud-with-aws-codepipeline-using-aws-codebuild/

Create secrete in aws secret manager,

Sonarqube – secret name - prod/sonar

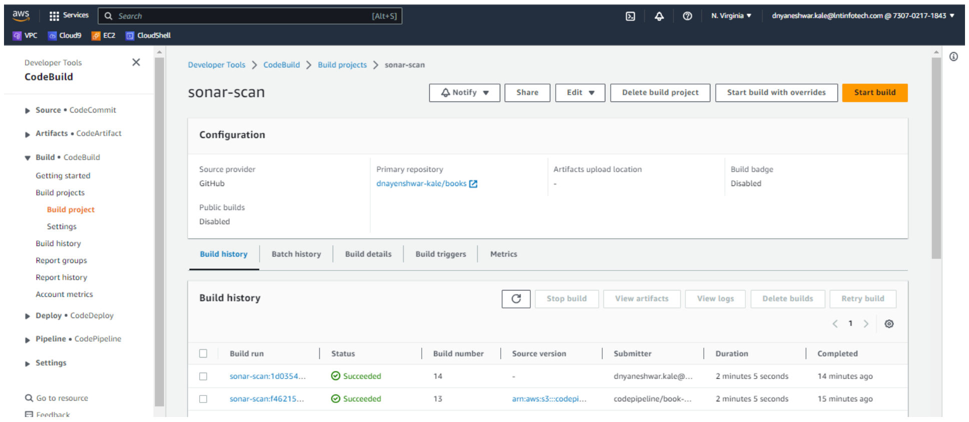
token a192c39382d9f21f8ace68235dea6ea07c0e9070

HOST https://sonarcloud.io

dnayenshwar-kale

dnayenshwar-kale_books

Build project With enable Privileged



Developer Tools > CodeBuild > Build projects > sonar-scan

sonar-scan

Configuration

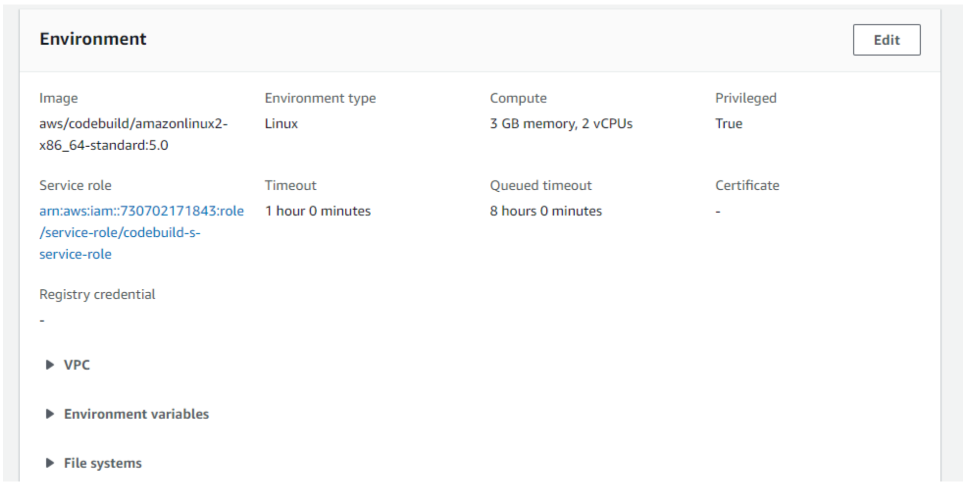
Source provider	Primary repository	Artifacts upload location	Build badge
GitHub	dnayenshwar-kale/books	-	Disabled

Public builds
Disabled

Build history

Build run	Status	Build number	Source version	Submitter	Duration	Completed
sonar-scan:1d0354...	Succeeded	14	-	dnyaneshwar.kale@...	2 minutes 5 seconds	14 minutes ago
sonar-scan:f46215...	Succeeded	13	arn:aws:s3:::codepi...	codepipeline/book-...	2 minutes 5 seconds	15 minutes ago

Go to build project -> sonar scan -> build details, go down in Environment check service role



Environment

Image	Environment type	Compute	Privileged
aws/codebuild/amazonlinux2-x86_64-standard:5.0	Linux	3 GB memory, 2 vCPUs	True

Service role	Timeout	Queued timeout	Certificate
arn:aws:iam::730702171843:role/service-role/codebuild-s-service-role	1 hour 0 minutes	8 hours 0 minutes	-

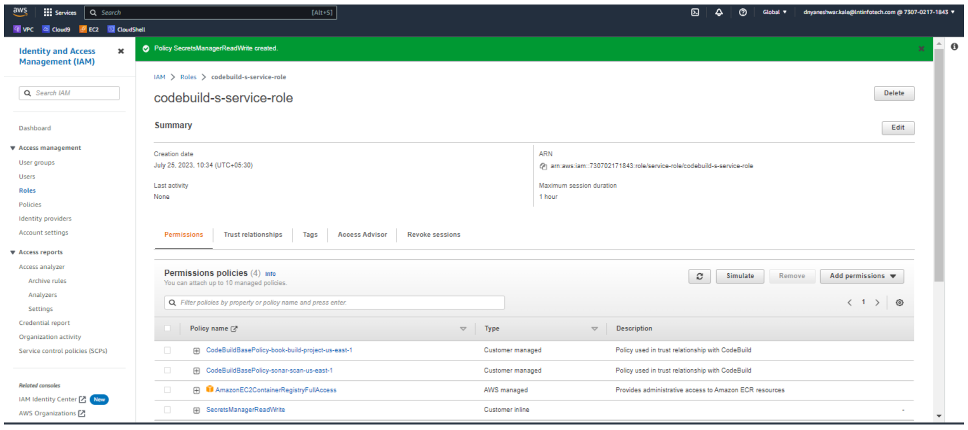
Registry credential
-

Then click on role go to permission -> add permission -> Attach policy to codebuild-n-service-role

Search “SecretsManagerReadWrite”

if not here Create new inline policy with name **SecretsManagerReadWrite**

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Action": "secretsmanager:GetSecretValue",
            "Resource": "arn:aws:secretsmanager:us-east-1:730702171843:secret:prod/sonar"
        }
    ]
}
```



Policy SecretsManagerReadWrite created.

codebuild-s-service-role

Summary

Creation date
July 25, 2023, 10:34 (UTC+05:30)

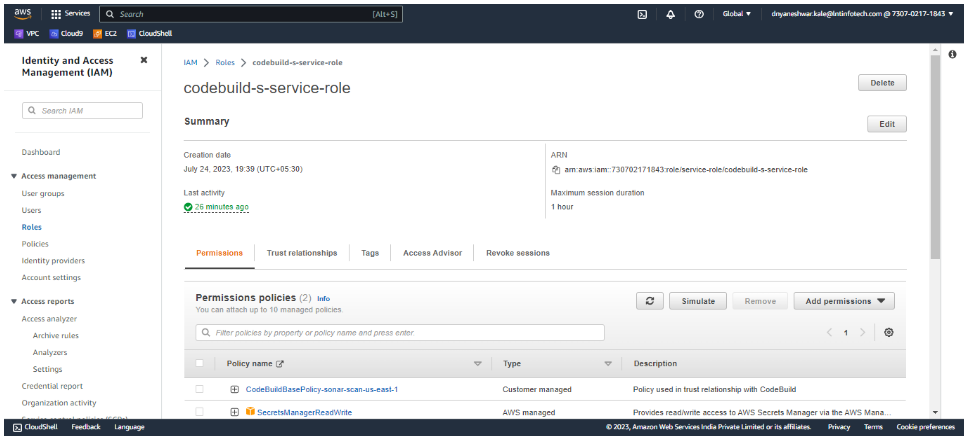
ARN
arn:aws:iam::730702171843:role/service-role/codebuild-s-service-role

Last activity
None

Maximum session duration
1 hour

Permissions policies (4)
You can attach up to 10 managed policies.

Policy name	Type	Description
CodeBuildBasePolicy-book-build-project-us-east-1	Customer managed	Policy used in trust relationship with CodeBuild
CodeBuildBasePolicy-sonar-scan-us-east-1	Customer managed	Policy used in trust relationship with CodeBuild
AmazonEC2ContainerRegistryFullAccess	AWS managed	Provides administrative access to Amazon ECR resources
SecretsManagerReadWrite	Customer inline	-



IAM > Roles > codebuild-s-service-role

codebuild-s-service-role

Summary

Creation date
July 24, 2023, 19:39 (UTC+05:30)

Last activity
26 minutes ago

ARN
arn:aws:iam::730702171843:role/service-role/codebuild-s-service-role

Maximum session duration
1 hour

Permissions policies (2)
You can attach up to 10 managed policies.

Policy name	Type	Description
CodeBuildBasePolicy-sonar-scan-us-east-1	Customer managed	Policy used in trust relationship with CodeBuild
SecretsManagerReadWrite	AWS managed	Provides read/write access to AWS Secrets Manager via the AWS Mana...

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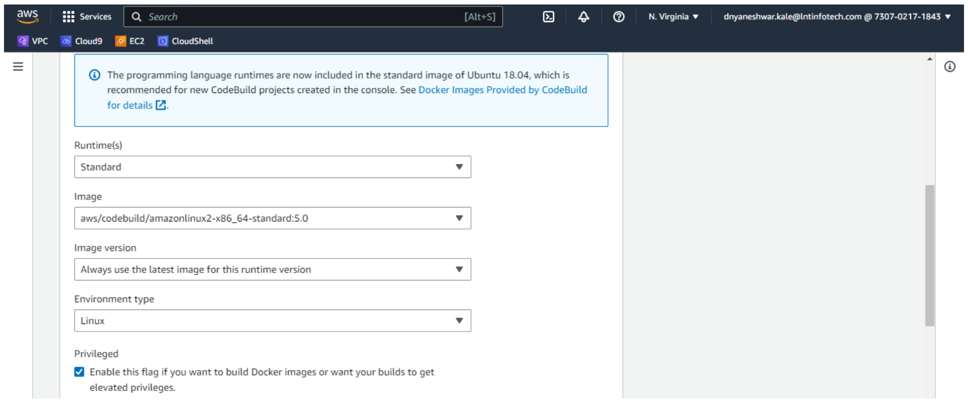
2 for build docker image and push to ECR

With enable Privileged



The programming language runtimes are now included in the standard image of Ubuntu 18.04, which is recommended for new CodeBuild projects created in the console. See Docker Images Provided by CodeBuild for details.

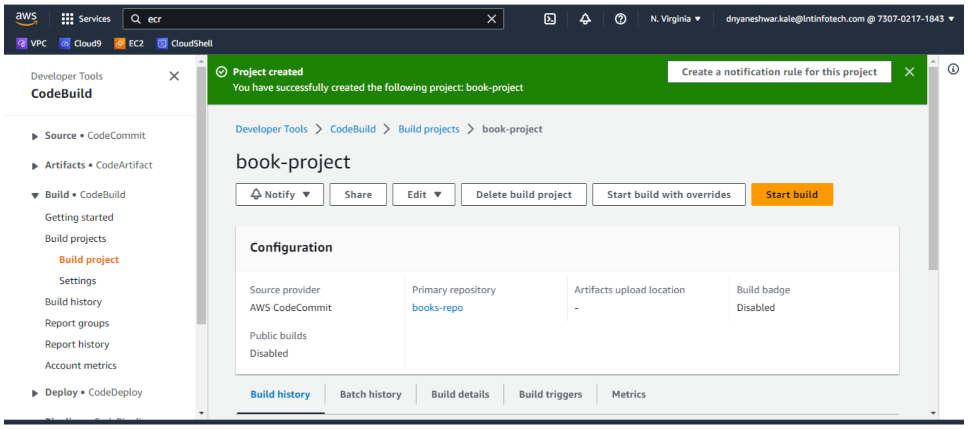
Runtime(s)
Standard

Image
aws/codebuild/amazonlinux2-x86_64-standard:5.0

Image version
Always use the latest image for this runtime version

Environment type
Linux

Privileged
- [x] Enable this flag if you want to build Docker images or want your builds to get elevated privileges.



Project created
You have successfully created the following project: book-project

Developer Tools > CodeBuild > Build projects > book-project

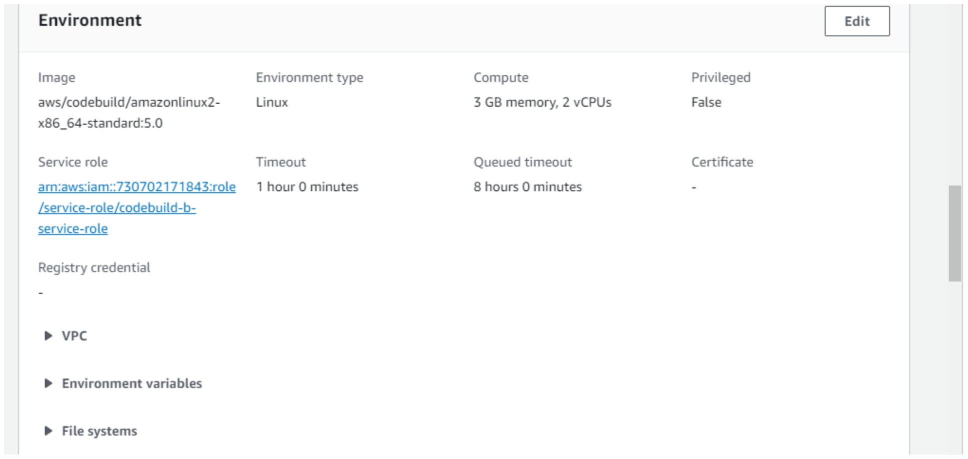
book-project

Configuration

Source provider	Primary repository	Artifacts upload location	Build badge
AWS CodeCommit	books-repo	-	Disabled

Public builds
Disabled

Go to build project -> book-project-> build details, go down in Environment check service role



Environment

Image	Environment type	Compute	Privileged
aws/codebuild/amazonlinux2-x86_64-standard:5.0	Linux	3 GB memory, 2 vCPUs	False

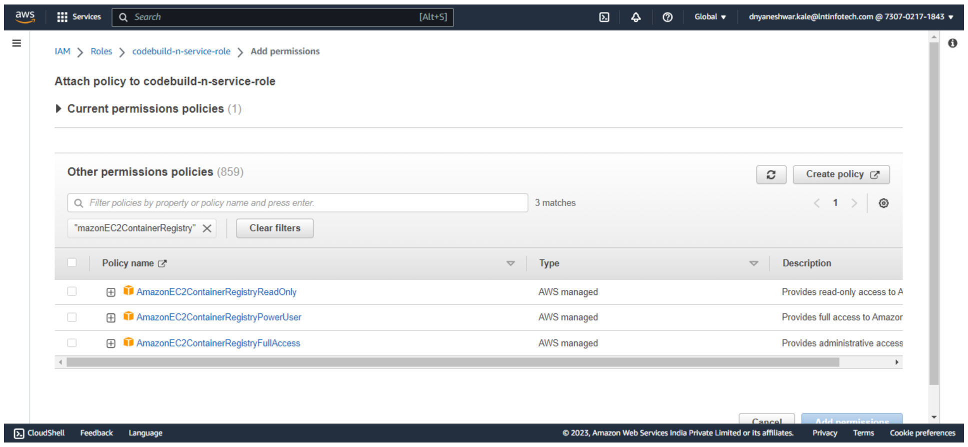
Service role	Timeout	Queued timeout	Certificate
arn:aws:iam::730702171843:role/service-role/codebuild-b-service-role	1 hour 0 minutes	8 hours 0 minutes	-

Registry credential
-

Click on service role

Then go to permission -> add permission -> Attach policy to codebuild-n-service-role

Search “AmazonEC2ContainerRegistry”



IAM > Roles > codebuild-n-service-role > Add permissions

Attach policy to codebuild-n-service-role

Current permissions policies (1)

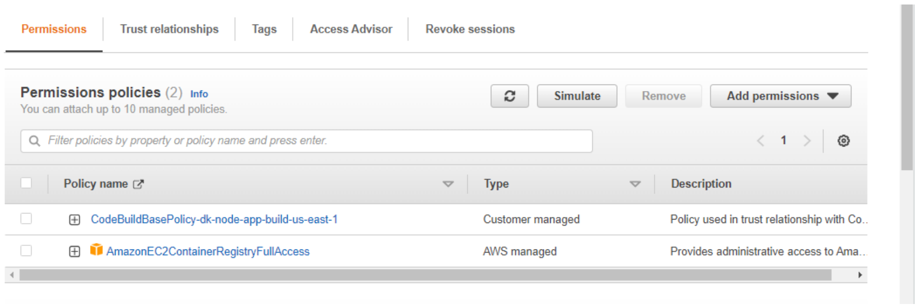
Other permissions policies (859)

Filter policies by property or policy name and press enter. 3 matches

"mazonEC2ContainerRegistry"

Policy name	Type	Description
AmazonEC2ContainerRegistryReadOnly	AWS managed	Provides read-only access to A
AmazonEC2ContainerRegistryPowerUser	AWS managed	Provides full access to Amazor
AmazonEC2ContainerRegistryFullAccess	AWS managed	Provides administrative access

AmazonEC2ContainerRegistryFullAccess



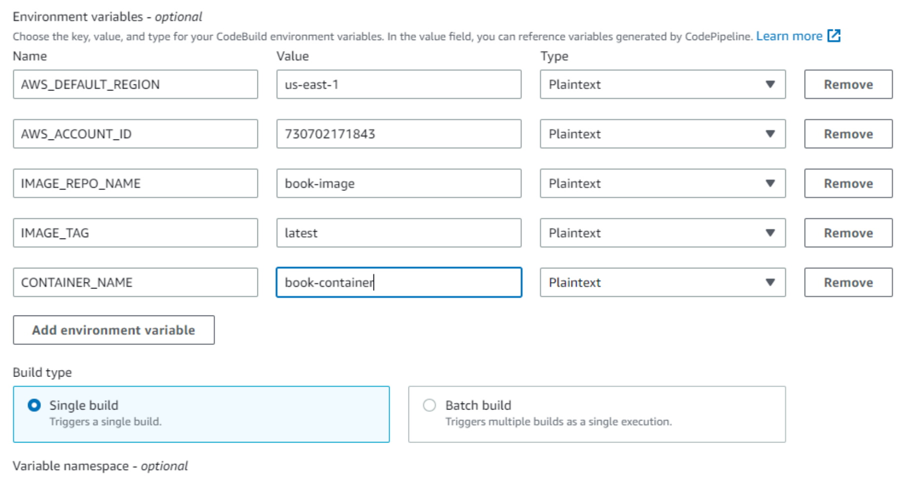
Permissions policies (2) Info
You can attach up to 10 managed policies.

Filter policies by property or policy name and press enter.

Policy name	Type	Description
CodeBuildBasePolicy-dk-node-app-build-us-east-1	Customer managed	Policy used in trust relationship with Co..
AmazonEC2ContainerRegistryFullAccess	AWS managed	Provides administrative access to Ama..

Create pipeline

Add Environment variables



Environment variables - *optional*

Choose the key, value, and type for your CodeBuild environment variables. In the value field, you can reference variables generated by CodePipeline. Learn more

Name	Value	Type	
AWS_DEFAULT_REGION	us-east-1	Plaintext	Remove
AWS_ACCOUNT_ID	730702171843	Plaintext	Remove
IMAGE_REPO_NAME	book-image	Plaintext	Remove
IMAGE_TAG	latest	Plaintext	Remove
CONTAINER_NAME	book-container	Plaintext	Remove

Add environment variable

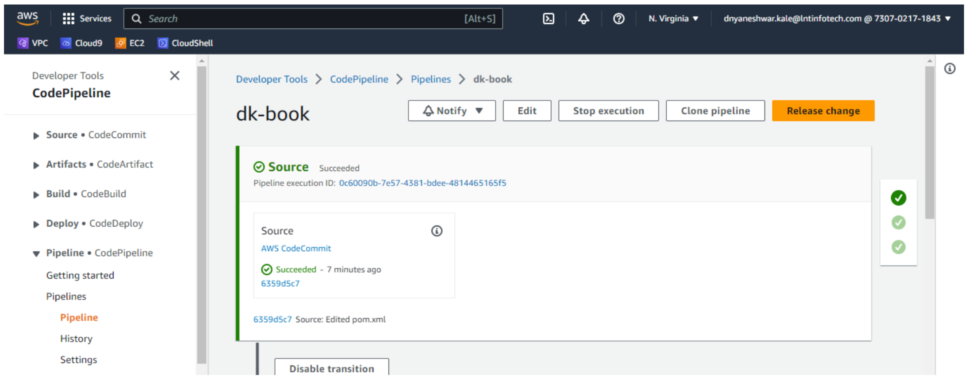
Build type

[✓ Single build] Triggers a single build.

Batch build Triggers multiple builds as a single execution.

Variable namespace - *optional*

Validate build



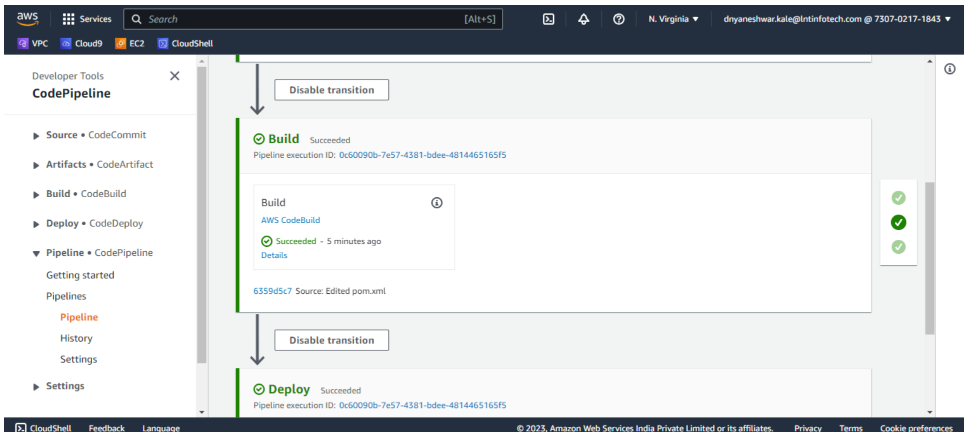
Developer Tools > CodePipeline > Pipelines > dk-book

dk-book

Source Succeeded
Pipeline execution ID: 0c60090b-7e57-4381-bdee-4814465165f5

Source
AWS CodeCommit
Succeeded - 7 minutes ago
6359d5c7

6359d5c7 Source: Edited pom.xml



Build Succeeded
Pipeline execution ID: 0c60090b-7e57-4381-bdee-4814465165f5

Build
AWS CodeBuild
Succeeded - 5 minutes ago
Details

6359d5c7 Source: Edited pom.xml

Deploy Succeeded
Pipeline execution ID: 0c60090b-7e57-4381-bdee-4814465165f5

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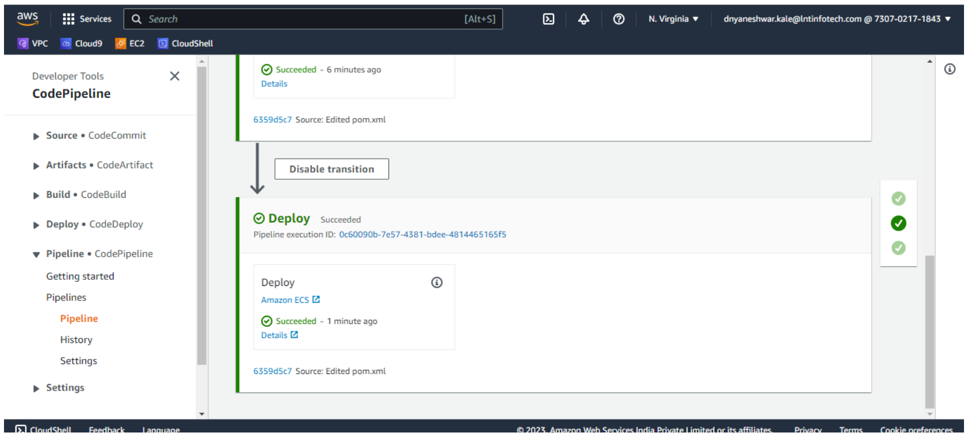


Succeeded - 6 minutes ago
Details

6359d5c7 Source: Edited pom.xml

Deploy Succeeded
Pipeline execution ID: 0c60090b-7e57-4381-bdee-4814465165f5

Deploy
Amazon ECS
Succeeded - 1 minute ago
Details

6359d5c7 Source: Edited pom.xml

If getting error in logs as below ,

Running command docker build -t $REPOSITORY_URI:$IMAGE_TAG . DEPRECATED: The legacy builder is deprecated and will be removed in a future release. Install the buildx component to build images with BuildKit: https://docs.docker.com/go/buildx/ Sending build context to Docker daemon 17.39MB Step 1/7 : FROM node:18 18: Pulling from library/node toomanyrequests: You have reached your pull rate limit. You may increase the limit by authenticating and upgrading: https://www.docker.com/increase-rate-limit [Container] 2023/07/18 11:00:08 Command did not exit successfully docker build -t $REPOSITORY_URI:$IMAGE_TAG . exit status 1 [Container] 2023/07/18 11:00:08 Phase complete: BUILD State: FAILED

To resolve above error below is solution

increase the limit by authenticating and upgrading you aws ECR Repository

To increase your Amazon ECR pull rate limit, you need to authenticate and upgrade your account. You can find more information on how to do this here: https://docs.aws.amazon.com/AmazonECR/latest/userguide/pull-rate-limits.html

Here are the steps you need to follow:

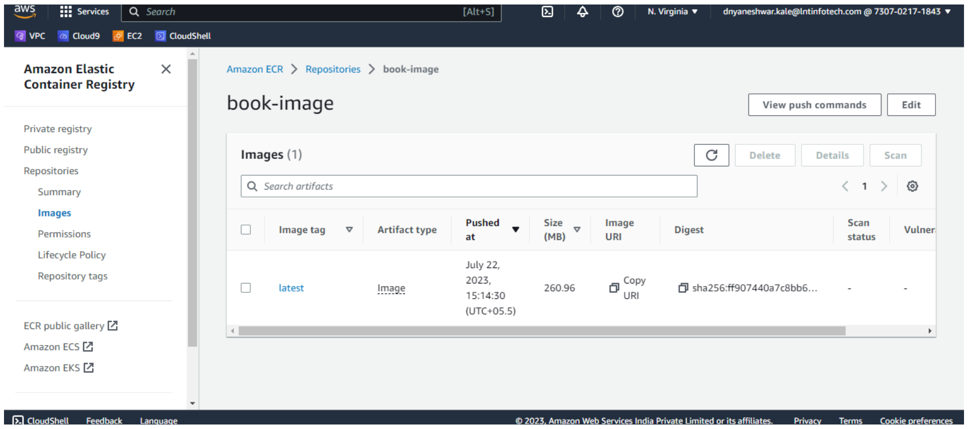
1. Go to the Amazon ECR console at https://console.aws.amazon.com/ecr/repositories.
2. Choose the repository for which you want to increase the pull rate limit.
3. Choose the “Permissions” tab.
4. Choose “Edit policy JSON”.

5. Add the following statement to the policy:

Triger the build again

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Principal": {
        "AWS": "730702171843"
      },
      "Action": [
        "ecr:GetDownloadUrlForLayer",
        "ecr:BatchGetImage",
        "ecr:BatchCheckLayerAvailability"
      ]
    }
  ]
}
```

Verify image in ECR



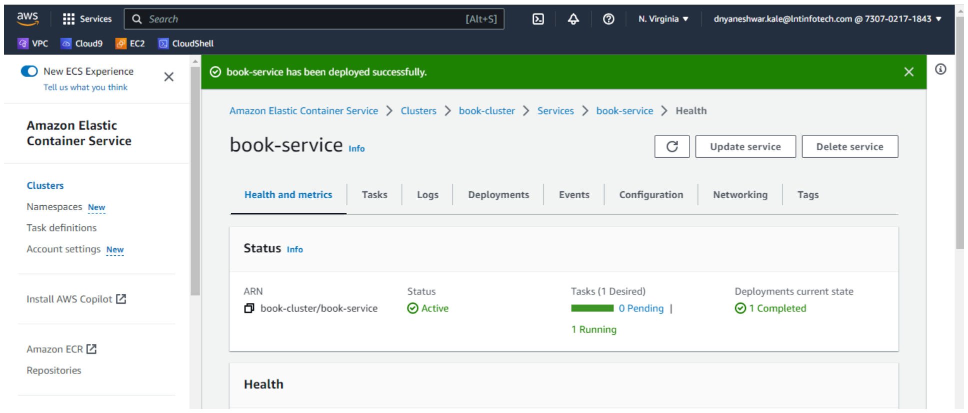
Amazon ECR > Repositories > book-image

book-image

Images (1)

Image tag	Artifact type	Pushed at	Size (MB)	Image URI	Digest	Scan status	Vulner
latest	Image	July 22, 2023, 15:14:30 (UTC+05.5)	260.96	Copy URI	sha256:ff907440a7c8bb6...	-	-

Verify deployment and test in ECS



book-service has been deployed successfully.

Amazon Elastic Container Service > Clusters > book-cluster > Services > book-service > Health

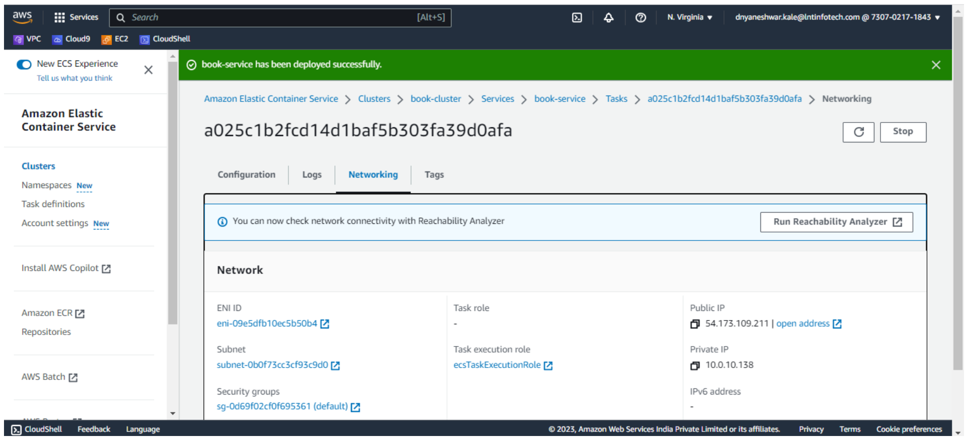
book-service Info

Status Info

ARN	Status	Tasks (1 Desired)	Deployments current state
book-cluster/book-service	Active	0 Pending | 1 Running	1 Completed

Health

Go to service ->task and copy public ip and test api



book-service has been deployed successfully.

Amazon Elastic Container Service > Clusters > book-cluster > Services > book-service > Tasks > a025c1b2fcd14d1baf5b303fa39d0afa > Networking

a025c1b2fcd14d1baf5b303fa39d0afa

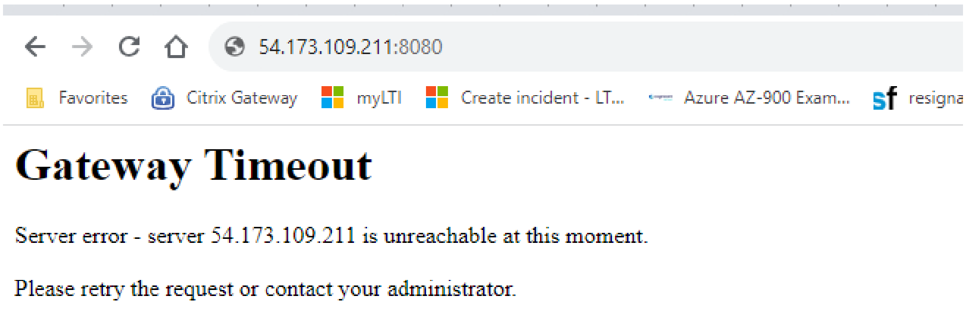
You can now check network connectivity with Reachability Analyzer

Network

ENI ID: eni-09e5dfb10ec5b50b4
Subnet: subnet-0b0f73cc3cf93c9d0
Security groups: sg-0d69f02cf0f695361 (default)
Task role: -
Task execution role: ecsTaskExecutionRole
Public IP: 54.173.109.211 | open address
Private IP: 10.0.10.138
IPv6 address: -

http://54.173.109.211:8080/swagger-ui/index.html#

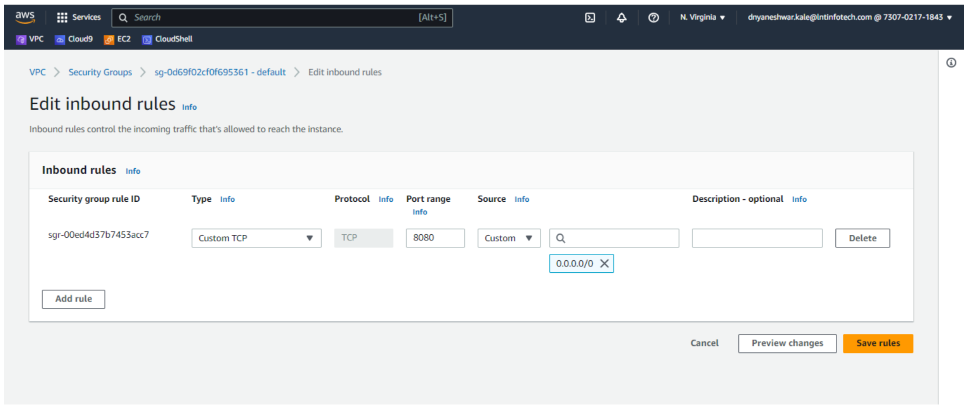
Note if you are not able to access then go to SG of that task and open inbound rule for port 8080


54.173.109.211:8080

Gateway Timeout

Server error - server 54.173.109.211 is unreachable at this moment.

Please retry the request or contact your administrator.


VPC > Security Groups > sg-0d69f02cf0f695361 - default > Edit inbound rules

Edit inbound rules

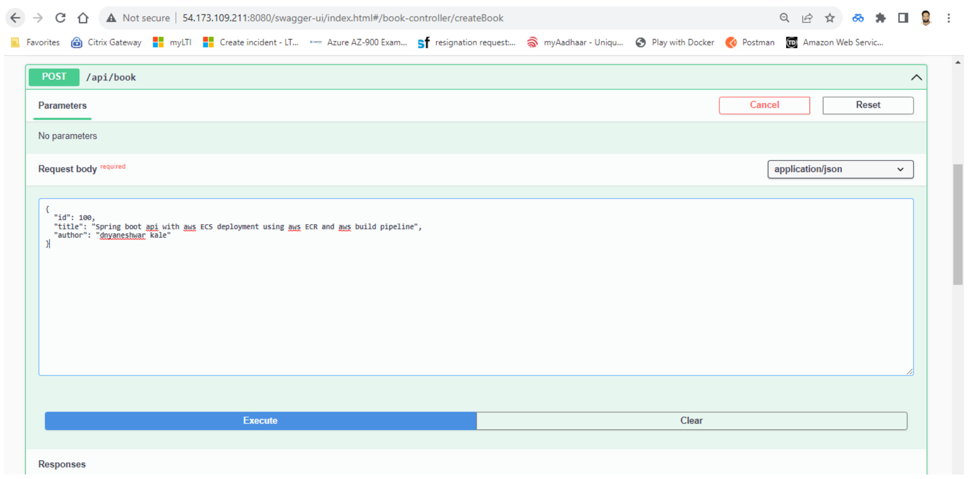
Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules

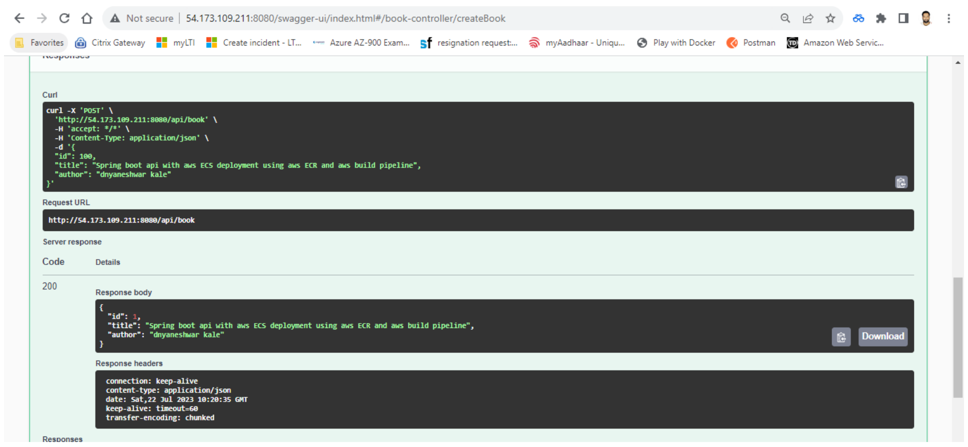
Security group rule ID	Type	Protocol	Port range	Source		Description - optional
sgr-00ed4d37b7453acc7	Custom TCP	TCP	8080	Custom	0.0.0.0/0	

Test API

http://54.173.109.211:8080/swagger-ui/index.html#



```
{
  "id": 100,
  "title": "Spring boot api with aws ECS deployment using aws ECR and aws build pipeline",
  "author": "dnyaneshwar kale"
}
```



```
curl -X 'POST' \
  'http://54.173.109.211:8080/api/book' \
  -H 'accept: */*' \
  -H 'Content-Type: application/json' \
  -d '{
  "id": 100,
  "title": "Spring boot api with aws ECS deployment using aws ECR and aws build pipeline",
  "author": "dnyaneshwar kale"
}'
```

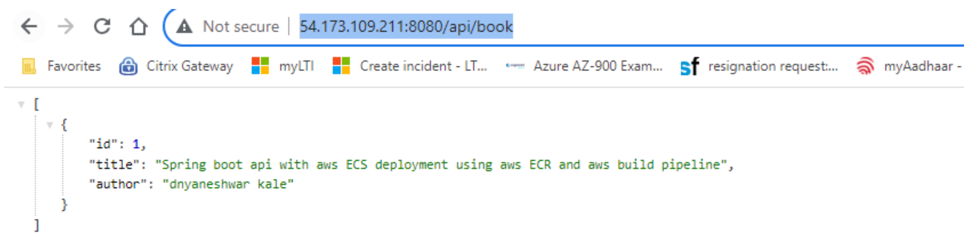
```
http://54.173.109.211:8080/api/book
```

```
{
  "id": 1,
  "title": "Spring boot api with aws ECS deployment using aws ECR and aws build pipeline",
  "author": "dnyaneshwar kale"
}
```

```
connection: keep-alive
content-type: application/json
date: Sat,22 Jul 2023 10:20:35 GMT
keep-alive: timeout=60
transfer-encoding: chunked
```

Get all books

http://54.173.109.211:8080/api/book

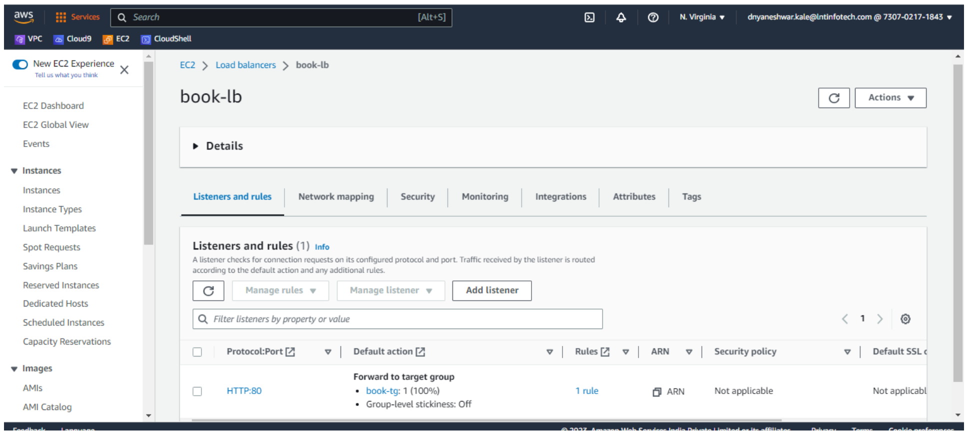


```
[
  {
    "id": 1,
    "title": "Spring boot api with aws ECS deployment using aws ECR and aws build pipeline",
    "author": "dnyaneshwar kale"
  }
]
```

Load balanacer

Accept request on 80 and TG on 8080 so open both inbound port on SG

Create service with application load balancer



EC2 > Load balancers > book-lb

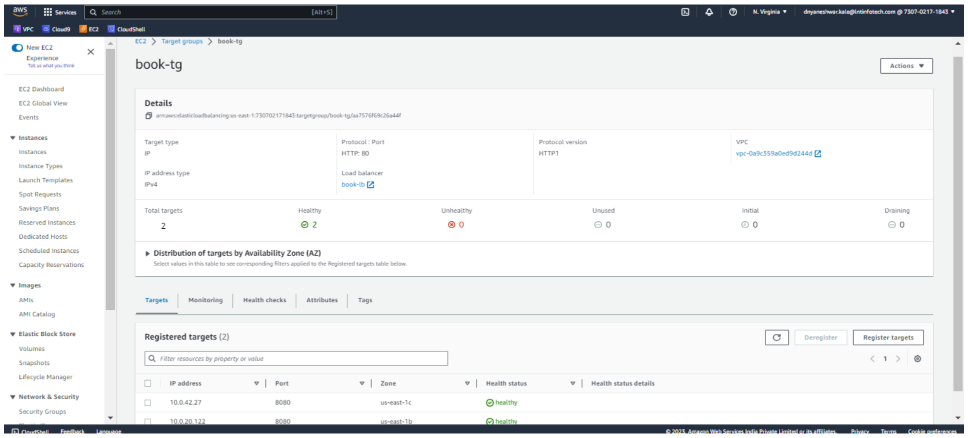
book-lb

Listeners and rules (1) Info

A listener checks for connection requests on its configured protocol and port. Traffic received by the listener is routed according to the default action and any additional rules.

Protocol:Port	Default action	Rules	ARN	Security policy	Default SSL c
HTTP:80	Forward to target group • book-tg: 1 (100%) • Group-level stickiness: Off	1 rule	ARN	Not applicable	Not applicabl

TG health point is - **/actuator/health**



EC2 > Target groups > book-tg

book-tg

Details

arn:aws:elasticloadbalancing:us-east-1:730702171843:targetgroup/book-tg/aa7576f69c26a44f

Target type	Protocol : Port	Protocol version	VPC
IP	HTTP: 80	HTTP1	vpc-0a9c359a0ed9d244d
IP address type	Load balancer		
IPv4	book-lb		

Total targets	Healthy	Unhealthy	Unused	Initial	Draining
2	2	0	0	0	0

Distribution of targets by Availability Zone (AZ)

Select values in this table to see corresponding filters applied to the Registered targets table below.

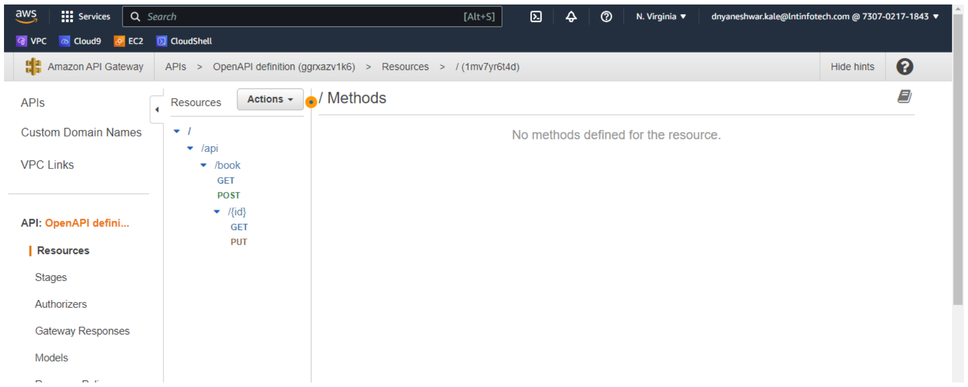
Registered targets (2)

IP address	Port	Zone	Health status	Health status details
10.0.42.27	8080	us-east-1c	healthy	
10.0.20.122	8080	us-east-1b	healthy	

Intergrate API gateway

Copy swagger docs http://book-lb-337877644.us-east-1.elb.amazonaws.com/v3/api-docs

Create rest api in aws api gateway using swagger api as below



Amazon API Gateway > APIs > OpenAPI definition (ggrxazv1k6) > Resources > / (1mv7yr6t4d)

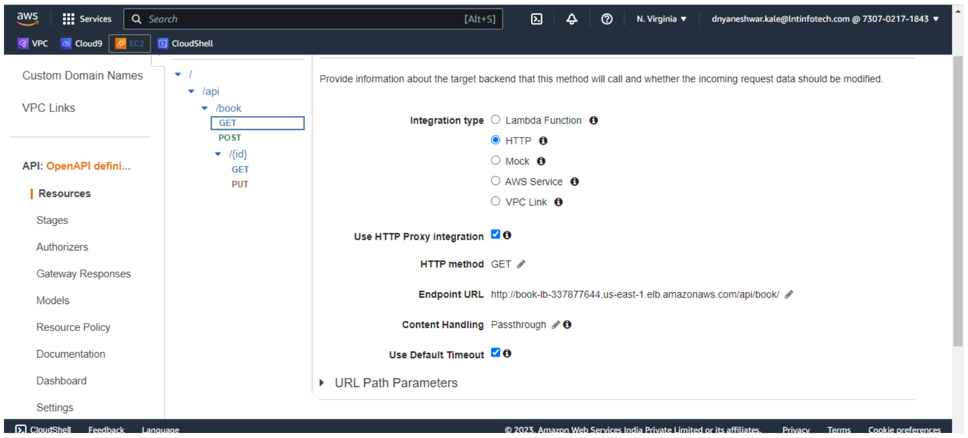
Resources / Methods

/
/api
/book
GET
POST
/{id}
GET
PUT

No methods defined for the resource.

Edit method and integrate with appropriate urls with integration type HTTP as below

GET http://book-lb-337877644.us-east-1.elb.amazonaws.com/api/book/



Provide information about the target backend that this method will call and whether the incoming request data should be modified.

Integration type: Lambda Function [✓ HTTP] Mock AWS Service VPC Link

Use HTTP Proxy integration: ✓

HTTP method: GET

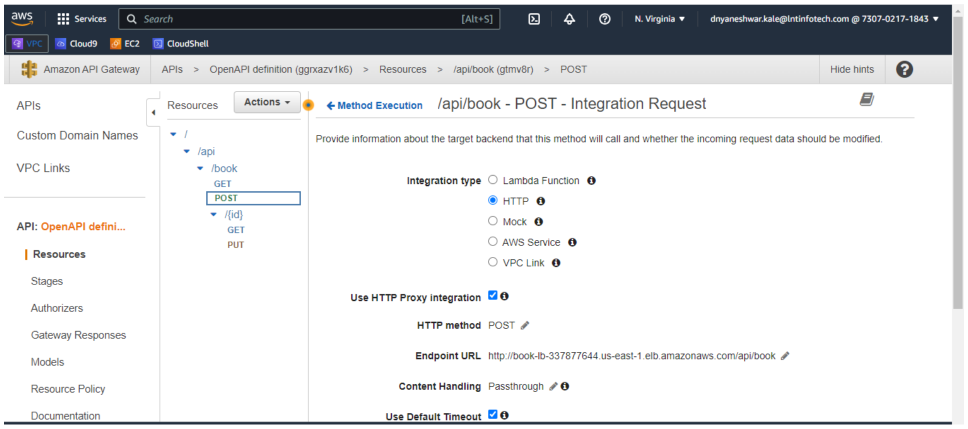
Endpoint URL: http://book-lb-337877644.us-east-1.elb.amazonaws.com/api/book/

Content Handling: Passthrough

Use Default Timeout: ✓

URL Path Parameters

POST http://book-lb-337877644.us-east-1.elb.amazonaws.com/api/book/



Amazon API Gateway > APIs > OpenAPI definition (ggrxazv1k6) > Resources > /api/book (gtmv8r) > POST

Method Execution /api/book - POST - Integration Request

Provide information about the target backend that this method will call and whether the incoming request data should be modified.

Integration type: Lambda Function [✓ HTTP] Mock AWS Service VPC Link

Use HTTP Proxy integration: ✓

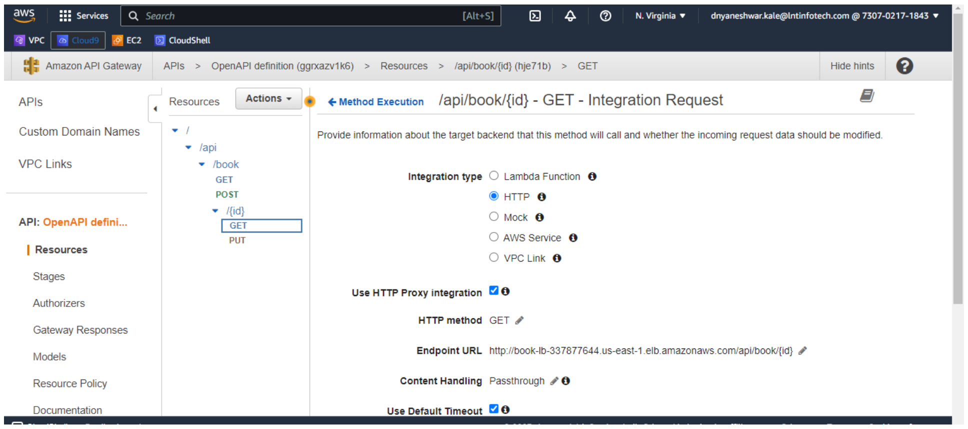
HTTP method: POST

Endpoint URL: http://book-lb-337877644.us-east-1.elb.amazonaws.com/api/book

Content Handling: Passthrough

Use Default Timeout: ✓

GET http://book-lb-337877644.us-east-1.elb.amazonaws.com/api/book/{id}



Amazon API Gateway > APIs > OpenAPI definition (ggrxazv1k6) > Resources > /api/book/{id} (hje71b) > GET

/api/book/{id} - GET - Integration Request

Provide information about the target backend that this method will call and whether the incoming request data should be modified.

Integration type: ○ Lambda Function ● HTTP ○ Mock ○ AWS Service ○ VPC Link

Use HTTP Proxy integration: ✓

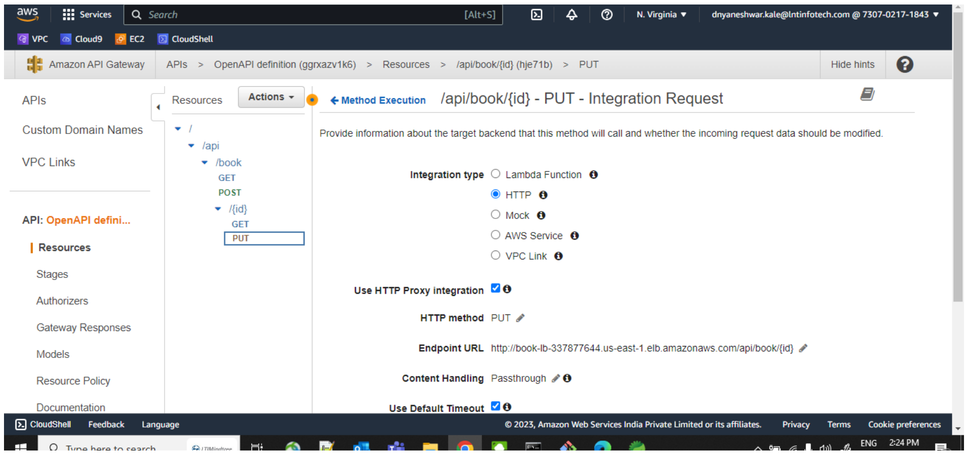
HTTP method: GET

Endpoint URL: http://book-lb-337877644.us-east-1.elb.amazonaws.com/api/book/{id}

Content Handling: Passthrough

Use Default Timeout: ✓

PUT http://book-lb-337877644.us-east-1.elb.amazonaws.com/api/book/{id}



Amazon API Gateway > APIs > OpenAPI definition (ggrxazv1k6) > Resources > /api/book/{id} (hje71b) > PUT

/api/book/{id} - PUT - Integration Request

Provide information about the target backend that this method will call and whether the incoming request data should be modified.

Integration type: ○ Lambda Function ● HTTP ○ Mock ○ AWS Service ○ VPC Link

Use HTTP Proxy integration: ✓

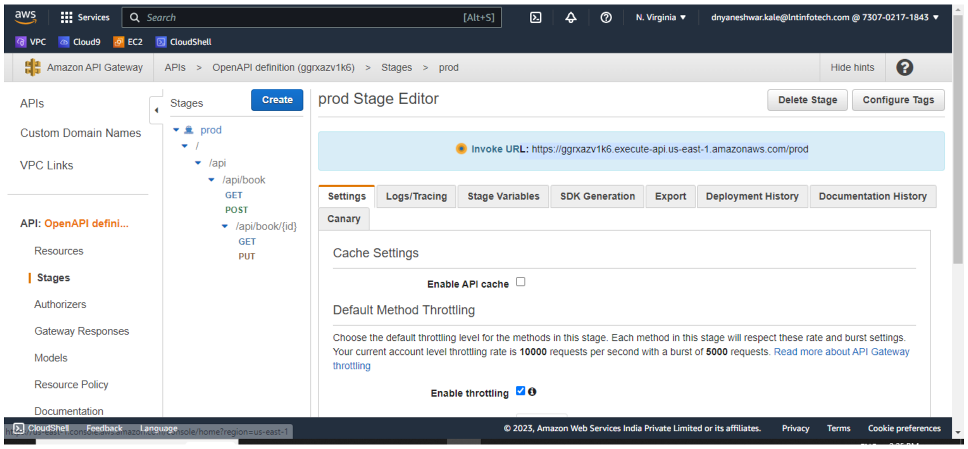
HTTP method: PUT

Endpoint URL: http://book-lb-337877644.us-east-1.elb.amazonaws.com/api/book/{id}

Content Handling: Passthrough

Use Default Timeout: ✓

Deploy api , copy url



Amazon API Gateway > APIs > OpenAPI definition (ggrxazv1k6) > Stages > prod

prod Stage Editor

Invoke URL: https://ggrxazv1k6.execute-api.us-east-1.amazonaws.com/prod

Cache Settings

Enable API cache: ☐

Default Method Throttling

Choose the default throttling level for the methods in this stage. Each method in this stage will respect these rate and burst settings. Your current account level throttling rate is **10000** requests per second with a burst of **5000** requests. Read more about API Gateway throttling

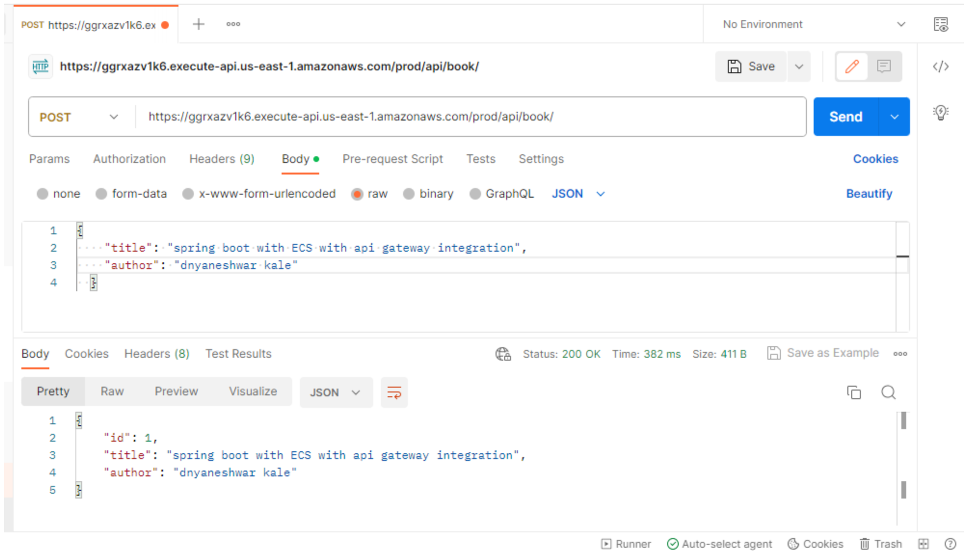
Enable throttling: ✓

https://ggrxazv1k6.execute-api.us-east-1.amazonaws.com/prod

Test via postman by adding below header

Content-Type -> application/json

POST



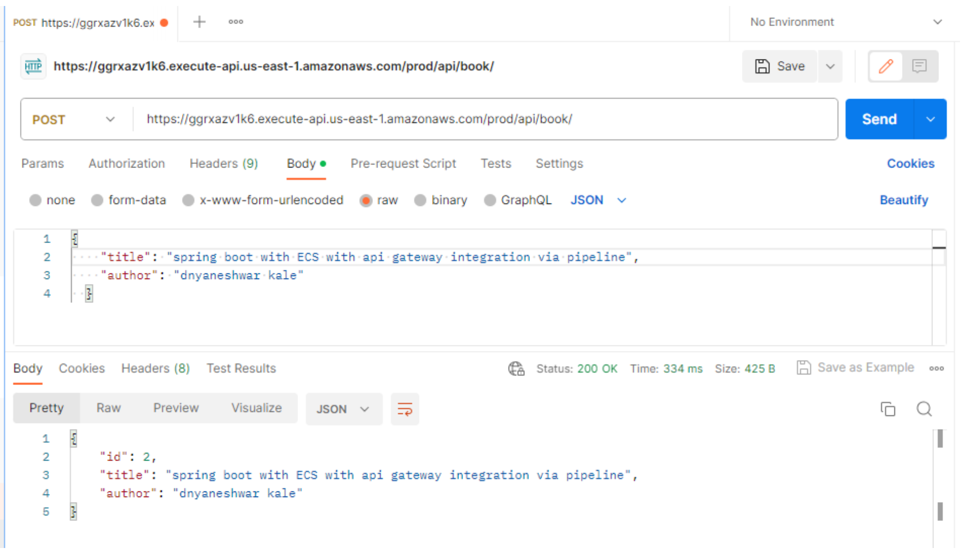
POST https://ggrxazv1k6.execute-api.us-east-1.amazonaws.com/prod/api/book/

Body: raw JSON

```
{
    "title": "spring boot with ECS with api gateway integration",
    "author": "dnyaneshwar kale"
}
```

Status: 200 OK Time: 382 ms Size: 411 B

```
{
    "id": 1,
    "title": "spring boot with ECS with api gateway integration",
    "author": "dnyaneshwar kale"
}
```



POST https://ggrxazv1k6.execute-api.us-east-1.amazonaws.com/prod/api/book/

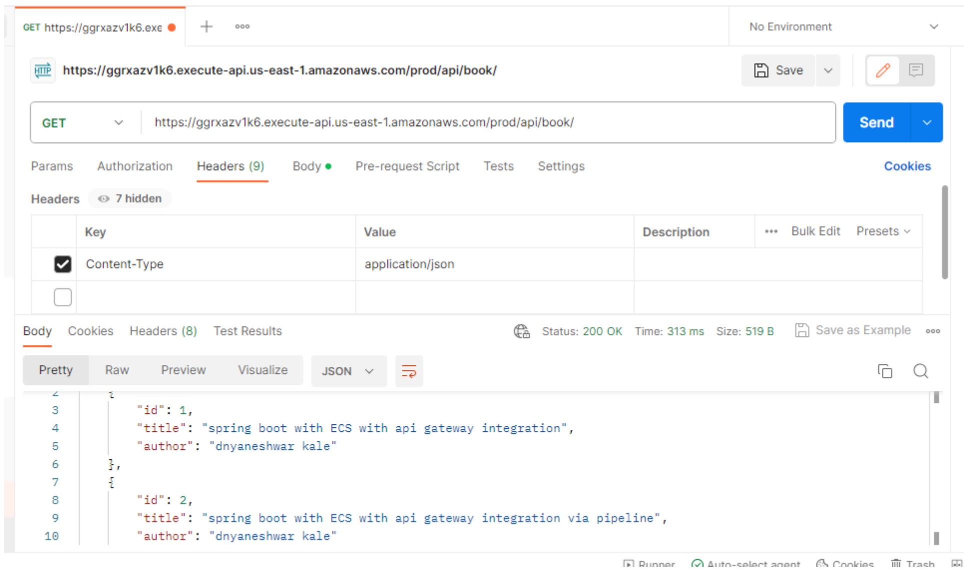
Body: raw JSON

```
{
    "title": "spring boot with ECS with api gateway integration via pipeline",
    "author": "dnyaneshwar kale"
}
```

Status: 200 OK Time: 334 ms Size: 425 B

```
{
    "id": 2,
    "title": "spring boot with ECS with api gateway integration via pipeline",
    "author": "dnyaneshwar kale"
}
```

GET ALL



https://ggrxazv1k6.execute-api.us-east-1.amazonaws.com/prod/api/book/

GET https://ggrxazv1k6.execute-api.us-east-1.amazonaws.com/prod/api/book/ **Send**

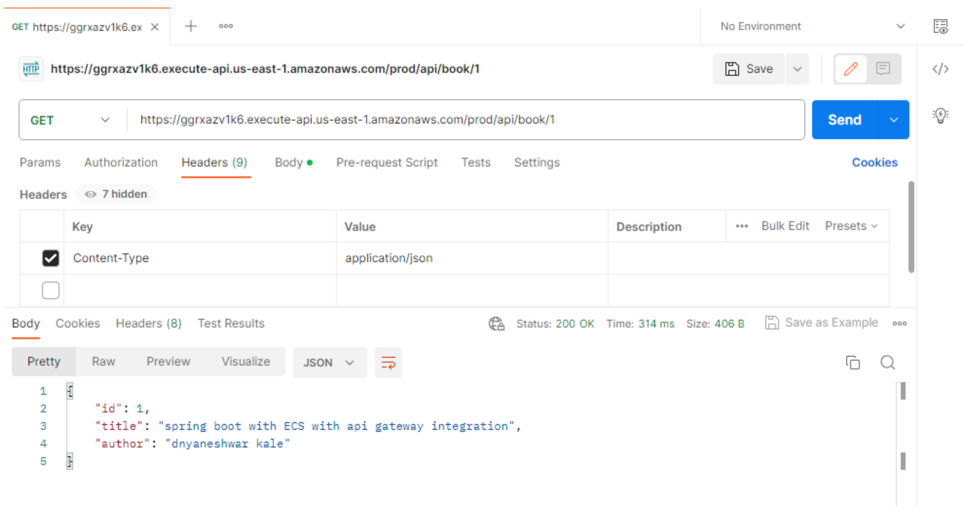
Headers

	Key	Value	Description
✓	Content-Type	application/json	
☐			

Status: 200 OK Time: 313 ms Size: 519 B

```
    {
        "id": 1,
        "title": "spring boot with ECS with api gateway integration",
        "author": "dnyaneshwar kale"
    },
    {
        "id": 2,
        "title": "spring boot with ECS with api gateway integration via pipeline",
        "author": "dnyaneshwar kale"
```

GET by id



https://ggrxazv1k6.execute-api.us-east-1.amazonaws.com/prod/api/book/1

GET https://ggrxazv1k6.execute-api.us-east-1.amazonaws.com/prod/api/book/1 **Send**

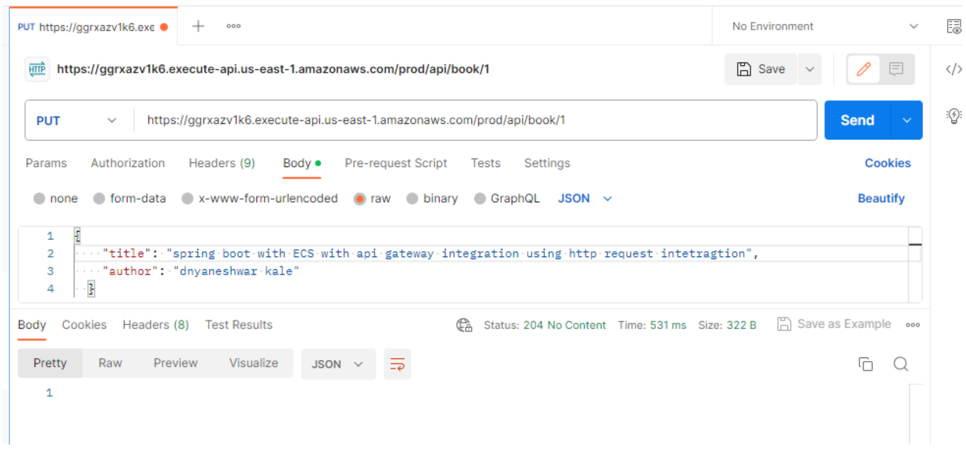
Headers

	Key	Value	Description
✓	Content-Type	application/json	
☐			

Status: 200 OK Time: 314 ms Size: 406 B

```
{
    "id": 1,
    "title": "spring boot with ECS with api gateway integration",
    "author": "dnyaneshwar kale"
}
```

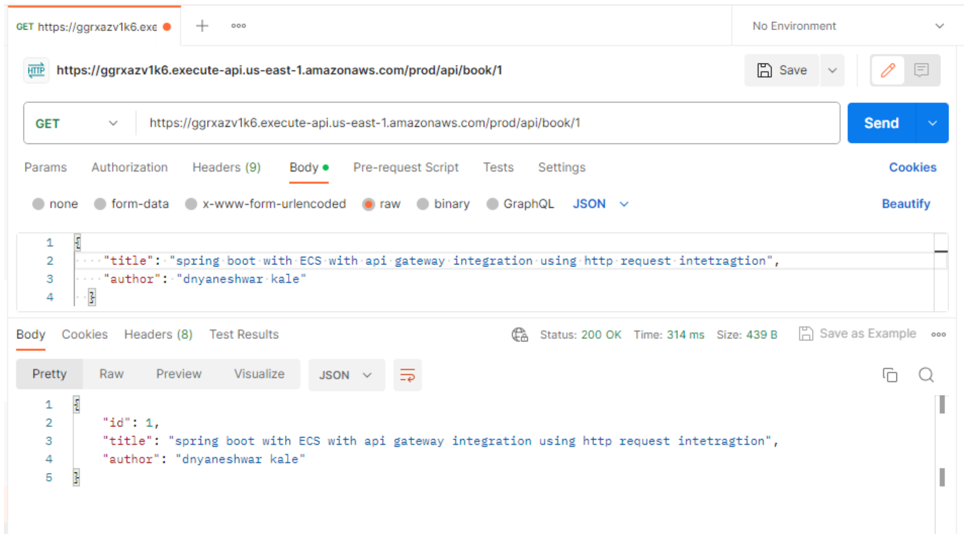
Update by id



PUT https://ggrxazv1k6.execute-api.us-east-1.amazonaws.com/prod/api/book/1

```
{
    "title": "spring boot with ECS with api gateway integration using http request intetragtion",
    "author": "dnyaneshwar kale"
}
```

Status: 204 No Content Time: 531 ms Size: 322 B



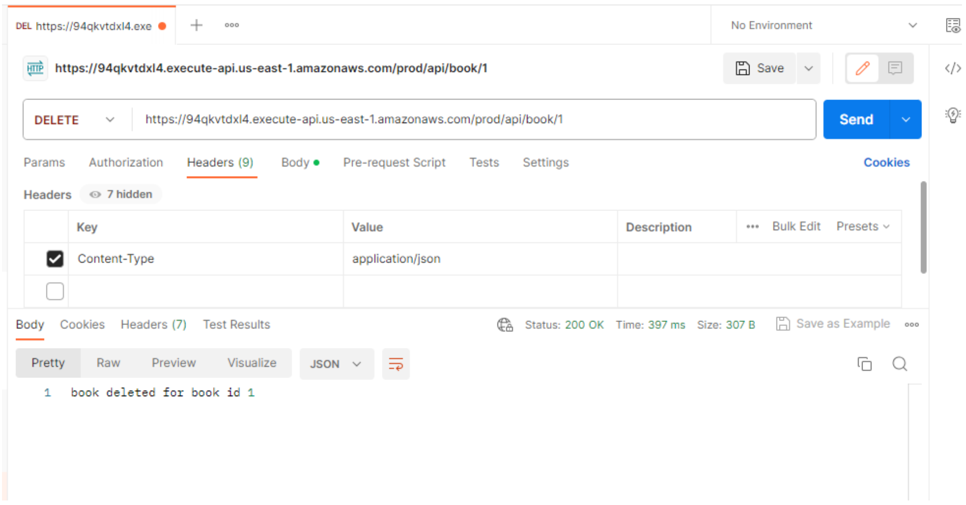
GET https://ggrxazv1k6.execute-api.us-east-1.amazonaws.com/prod/api/book/1

```
{
    "title": "spring boot with ECS with api gateway integration using http request intetragtion",
    "author": "dnyaneshwar kale"
}
```

Status: 200 OK Time: 314 ms Size: 439 B

```
{
    "id": 1,
    "title": "spring boot with ECS with api gateway integration using http request intetragtion",
    "author": "dnyaneshwar kale"
}
```

delete by id

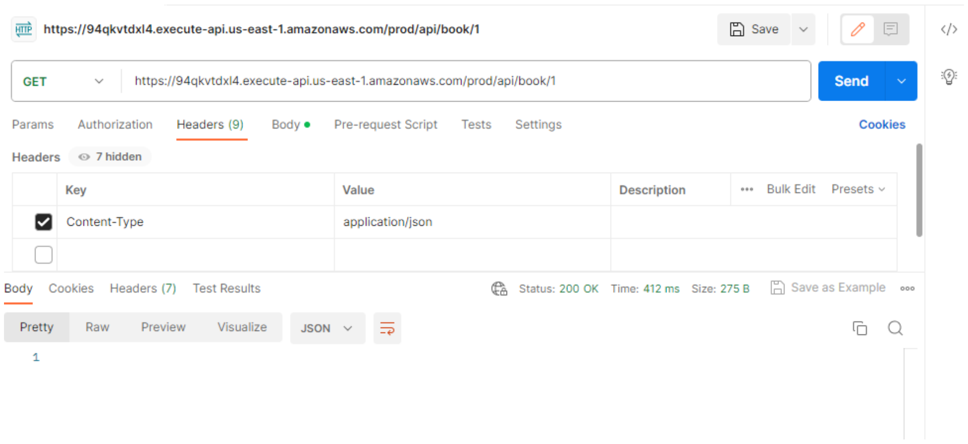


DELETE https://94qkvtdxl4.execute-api.us-east-1.amazonaws.com/prod/api/book/1

	Key	Value	Description
✓	Content-Type	application/json	

Status: 200 OK Time: 397 ms Size: 307 B

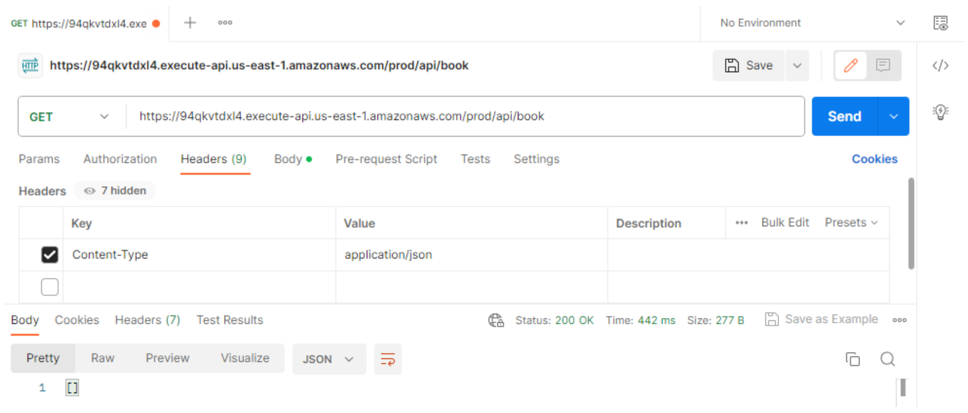
```
book deleted for book id 1
```



GET https://94qkvtdxl4.execute-api.us-east-1.amazonaws.com/prod/api/book/1

	Key	Value	Description
✓	Content-Type	application/json	

Status: 200 OK Time: 412 ms Size: 275 B



GET https://94qkvtdxl4.execute-api.us-east-1.amazonaws.com/prod/api/book

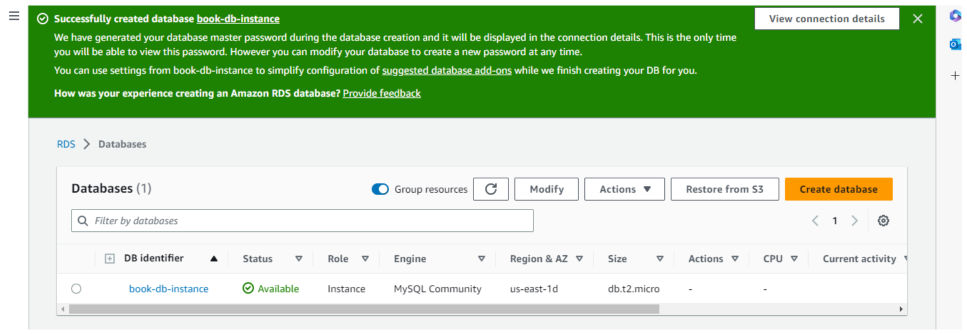
	Key	Value	Description
✓	Content-Type	application/json	

Status: 200 OK Time: 442 ms Size: 277 B

```
[]
```

Create MYSQL RDS

MYSQL DB



Successfully created database book-db-instance

We have generated your database master password during the database creation and it will be displayed in the connection details. This is the only time you will be able to view this password. However you can modify your database to create a new password at any time.

You can use settings from book-db-instance to simplify configuration of suggested database add-ons while we finish creating your DB for you.

How was your experience creating an Amazon RDS database? Provide feedback

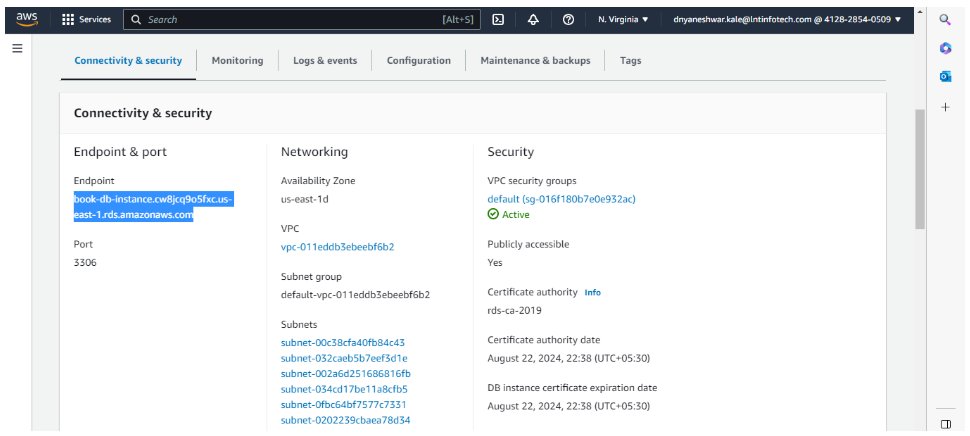
RDS > Databases

Databases (1)

	DB identifier	Status	Role	Engine	Region & AZ	Size	Actions	CPU	Current activity
○	book-db-instance	✓ Available	Instance	MySQL Community	us-east-1d	db.t2.micro	-	-	

Master username admin

Master password Lalp0xddNaVMauRM6qys



Connectivity & security

Endpoint & port

Endpoint
book-db-instance.cw8jcq9o5fxc.us-east-1.rds.amazonaws.com

Port
3306

Networking

Availability Zone
us-east-1d

VPC
vpc-011eddb3ebeebf6b2

Subnet group
default-vpc-011eddb3ebeebf6b2

Subnets
subnet-00c38cfa40fb84c43
subnet-032caeb5b7eef3d1e
subnet-002a6d251686816fb
subnet-034cd17be11a8cfb5
subnet-0fbc64bf7577c7331
subnet-0202239cbaea78d34

Security

VPC security groups
default (sg-016f180b7e0e932ac)
✓ Active

Publicly accessible
Yes

Certificate authority Info
rds-ca-2019

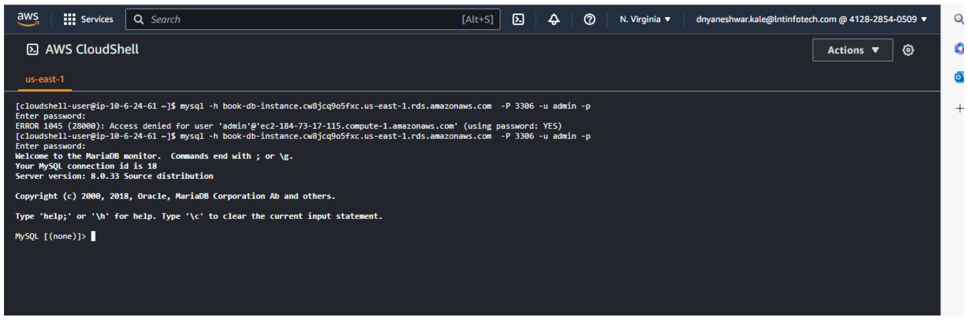
Certificate authority date
August 22, 2024, 22:38 (UTC+05:30)

DB instance certificate expiration date
August 22, 2024, 22:38 (UTC+05:30)

Endpoint - book-db-instance.cw8jcq9o5fxc.us-east-1.rds.amazonaws.com

Connect DB from Cloud shell

```
mysql -h book-db-instance.cw8jcq9o5fxc.us-east-1.rds.amazonaws.com -P 3306  -u admin -p
```



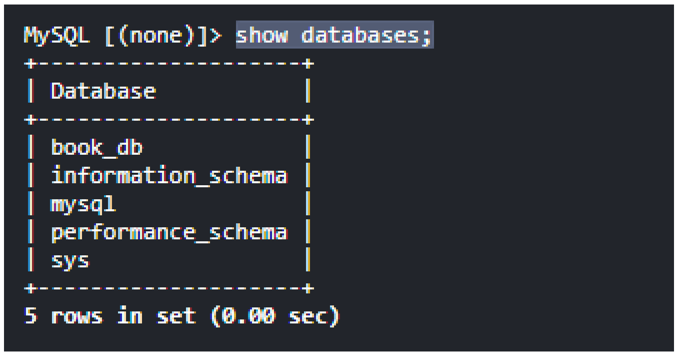
```
[cloudshell-user@ip-10-6-24-61 ~]$ mysql -h book-db-instance.cw8jcq9o5fxc.us-east-1.rds.amazonaws.com  -P 3306 -u admin -p
Enter password:
ERROR 1045 (28000): Access denied for user 'admin'@'ec2-184-73-17-115.compute-1.amazonaws.com' (using password: YES)
[cloudshell-user@ip-10-6-24-61 ~]$ mysql -h book-db-instance.cw8jcq9o5fxc.us-east-1.rds.amazonaws.com  -P 3306 -u admin -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MySQL connection id is 18
Server version: 8.0.33 Source distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

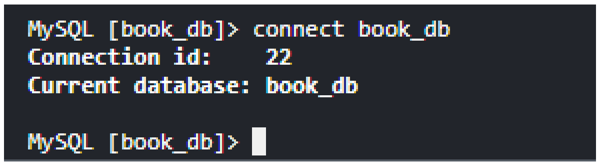
MySQL [(none)]>
```

show databases;



```
MySQL [(none)]> show databases;
+--------------------+
| Database           |
+--------------------+
| book_db            |
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
5 rows in set (0.00 sec)
```

connect book_db ;



```
MySQL [book_db]> connect book_db
Connection id:    22
Current database: book_db

MySQL [book_db]>
```

show tables;

Spring boot integration with RDS

Update pom.xml and application.yml file as per RDS secret

[Integrate AWS Secrets Manager in Spring Boot | Baeldung]()

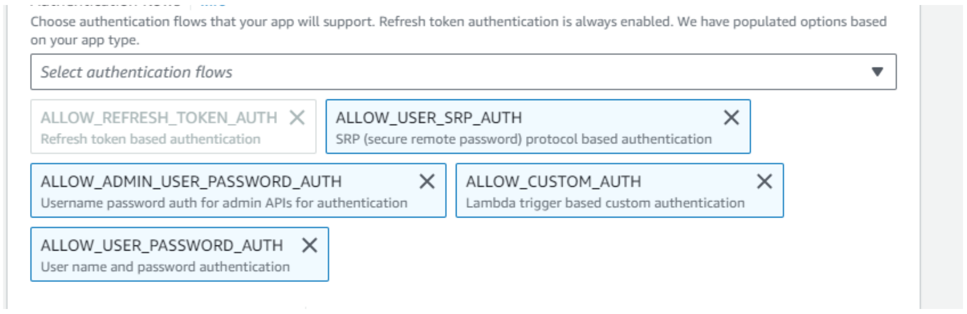
Working soltuion - [Spring Boot CRUD API, Amazon RDS for MySQL, AWS Secrets Manager - example - DEV Community]()

Create aws cognito for authentication

https://mydeveloperplanet.com/2022/01/25/how-to-secure-aws-api-gateway-with-cognito-user-pool/

https://www.youtube.com/watch?v=LI31QxfAgho

Below check box should be checked while creating client app or you can edit later

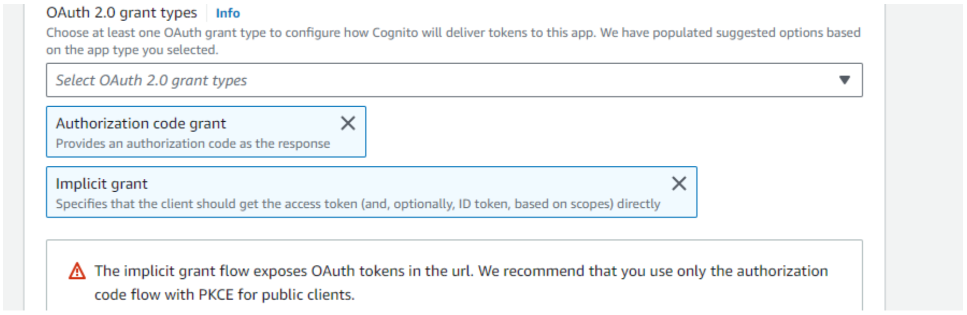


Choose authentication flows that your app will support. Refresh token authentication is always enabled. We have populated options based on your app type.

Select authentication flows

ALLOW_REFRESH_TOKEN_AUTH — Refresh token based authentication
ALLOW_USER_SRP_AUTH — SRP (secure remote password) protocol based authentication
ALLOW_ADMIN_USER_PASSWORD_AUTH — Username password auth for admin APIs for authentication
ALLOW_CUSTOM_AUTH — Lambda trigger based custom authentication
ALLOW_USER_PASSWORD_AUTH — User name and password authentication

OAuth 2.0 grant types -> Implicit grant checked for allow idtoken response type from sign in page



OAuth 2.0 grant types

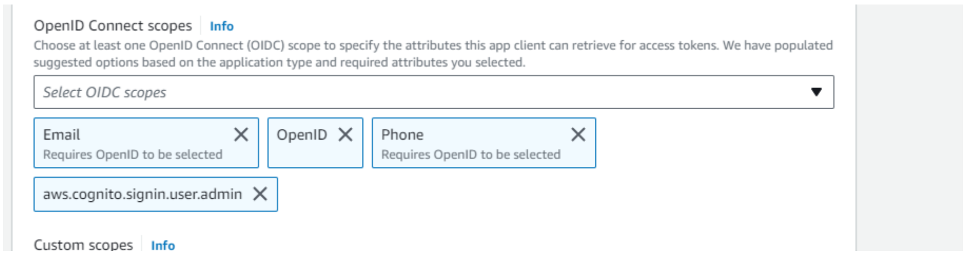
Choose at least one OAuth grant type to configure how Cognito will deliver tokens to this app. We have populated suggested options based on the app type you selected.

Select OAuth 2.0 grant types

Authorization code grant — Provides an authorization code as the response
Implicit grant — Specifies that the client should get the access token (and, optionally, ID token, based on scopes) directly

The implicit grant flow exposes OAuth tokens in the url. We recommend that you use only the authorization code flow with PKCE for public clients.

OpenID Connect scopes -> aws.cognito.signin.user.admin and Profile checked for allow idtoken response type from sign in page



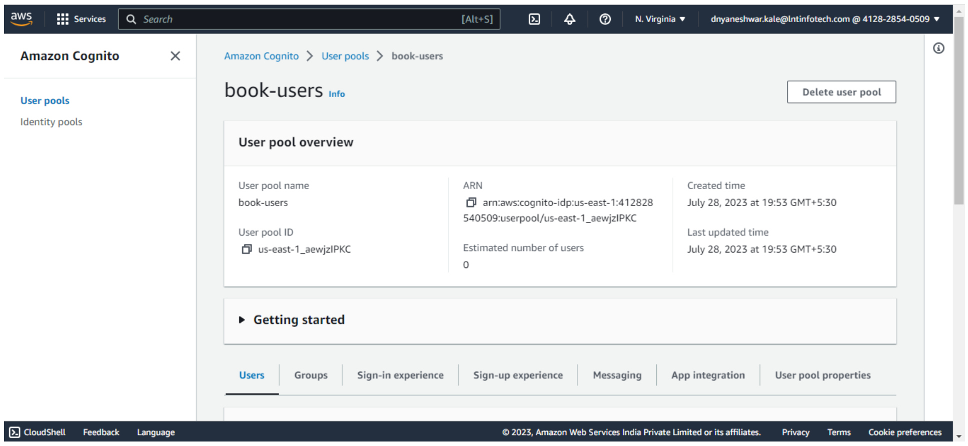
OpenID Connect scopes

Choose at least one OpenID Connect (OIDC) scope to specify the attributes this app client can retrieve for access tokens. We have populated suggested options based on the application type and required attributes you selected.

Select OIDC scopes

Email — Requires OpenID to be selected
OpenID
Phone — Requires OpenID to be selected
aws.cognito.signin.user.admin

Custom scopes



book-users Info

User pool overview

User pool name
book-users

User pool ID
us-east-1_aewjzIPKC

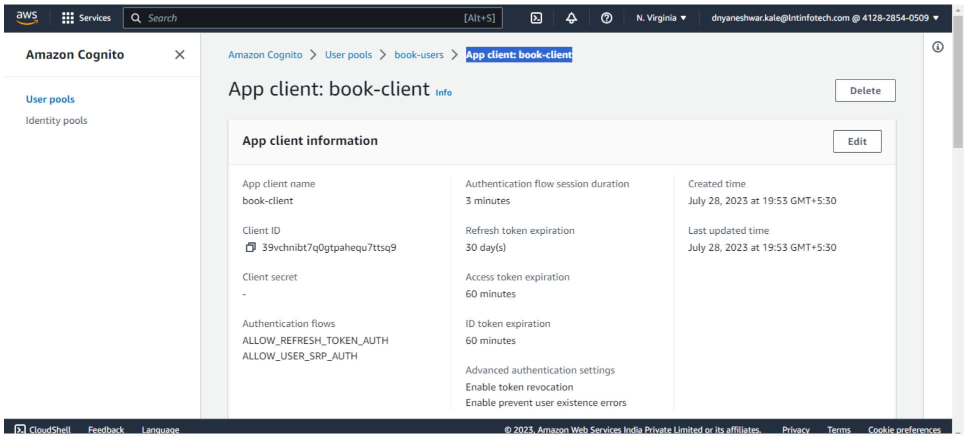
ARN
arn:aws:cognito-idp:us-east-1:412828540509:userpool/us-east-1_aewjzIPKC

Estimated number of users
0

Created time
July 28, 2023 at 19:53 GMT+5:30

Last updated time
July 28, 2023 at 19:53 GMT+5:30

Go to app intergration -> **App client: book-client**


aws
Services
Search
[Alt+S]
N. Virginia
dnyaneshwar.kale@intinfotech.com @ 4128-2854-0509
Amazon Cognito
User pools
Identity pools
Amazon Cognito > User pools > book-users > App client: book-client
Delete
Edit
CloudShell
Feedback
Language
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Privacy
Terms
Cookie preferences

App client: book-client Info

App client information

App client name
book-client

Client ID
39vchnibt7q0gtpahequ7ttsq9

Client secret
-

Authentication flows
ALLOW_REFRESH_TOKEN_AUTH
ALLOW_USER_SRP_AUTH

Authentication flow session duration
3 minutes

Refresh token expiration
30 day(s)

Access token expiration
60 minutes

ID token expiration
60 minutes

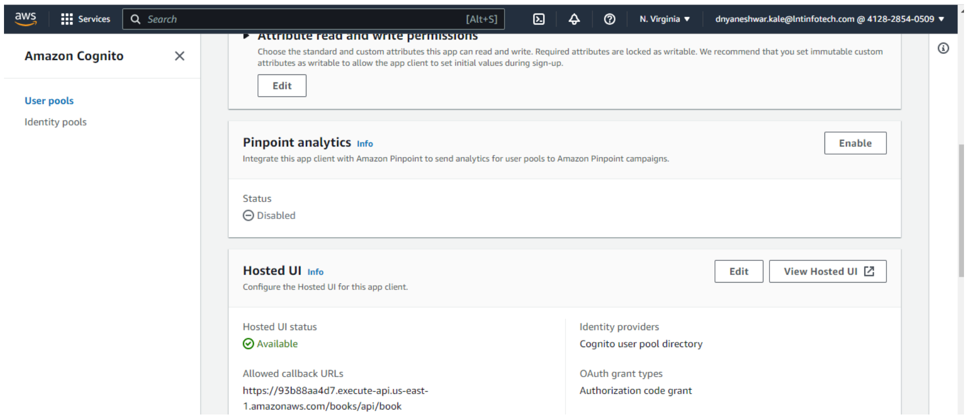
Advanced authentication settings
Enable token revocation
Enable prevent user existence errors

Created time
July 28, 2023 at 19:53 GMT+5:30

Last updated time
July 28, 2023 at 19:53 GMT+5:30

Click on view hosted UI

https://book-demo.auth.us-east-1.amazoncognito.com/login?client_id=39vchnibt7q0gtpahequ7ttsq9&response_type=code&scope=email+openid+phone&redirect_uri=https%3A%2F%2F93b88aa4d7.execute-api.us-east-1.amazonaws.com%2Fbooks%2Fapi%2Fbook



Attribute read and write permissions

Choose the standard and custom attributes this app can read and write. Required attributes are locked as writable. We recommend that you set immutable custom attributes as writable to allow the app client to set initial values during sign-up.

Pinpoint analytics

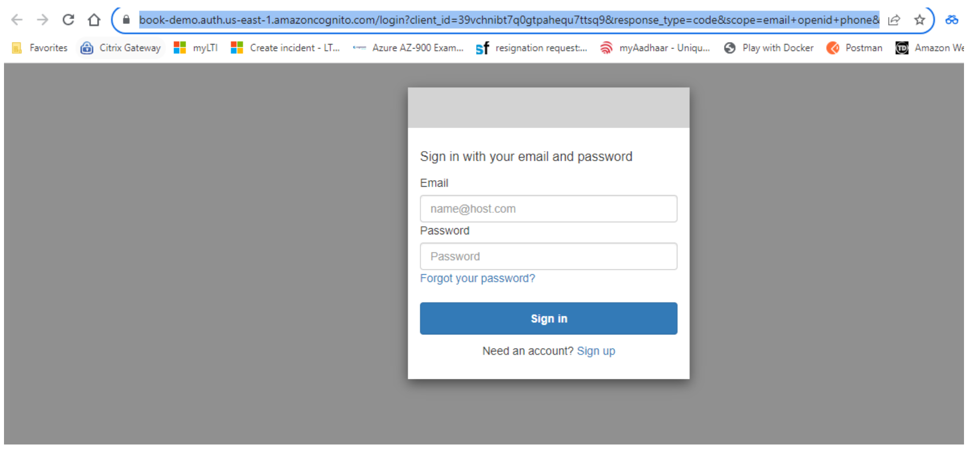
Integrate this app client with Amazon Pinpoint to send analytics for user pools to Amazon Pinpoint campaigns.

Status: Disabled

Hosted UI

Configure the Hosted UI for this app client.

Hosted UI status	Identity providers
Available	Cognito user pool directory
Allowed callback URLs	OAuth grant types
https://93b88aa4d7.execute-api.us-east-1.amazonaws.com/books/api/book	Authorization code grant



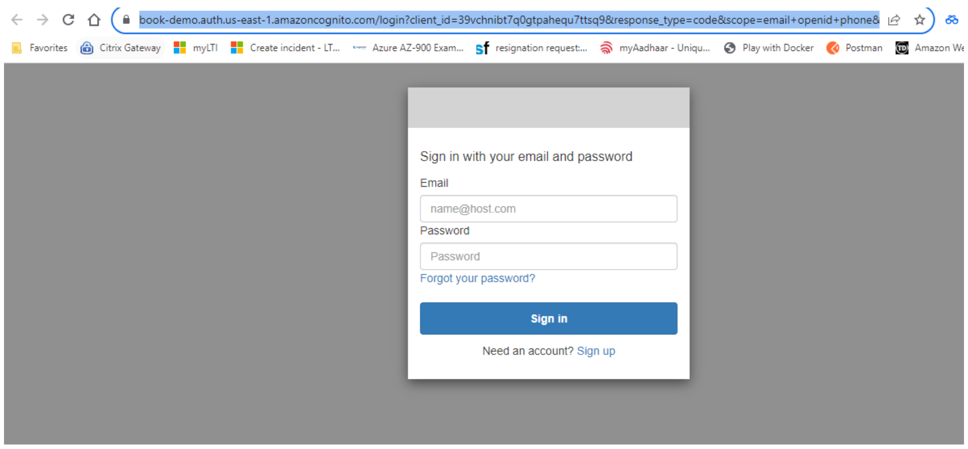
book-demo.auth.us-east-1.amazoncognito.com/login?client_id=39vchnibt7q0gtpahequ7ttsq9&response_type=code&scope=email+openid+phone&

Sign in with your email and password

Email: name@host.com

Password: Password

Sign up



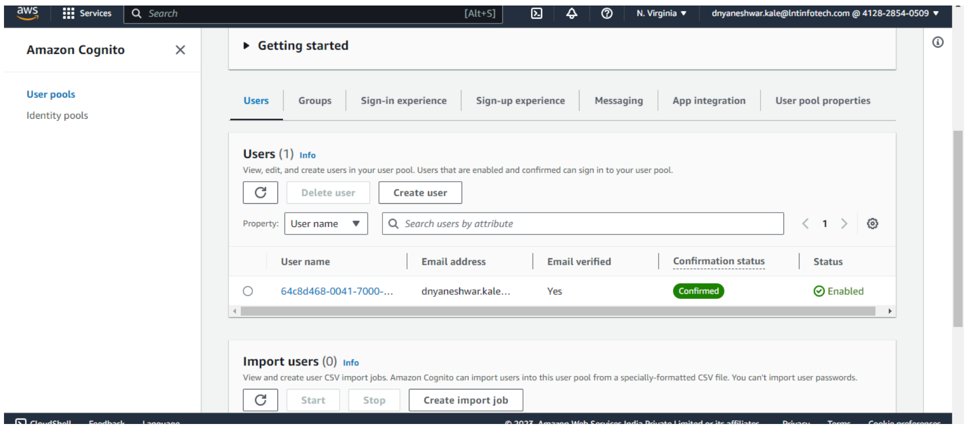
book-demo.auth.us-east-1.amazoncognito.com/login?client_id=39vchnibt7q0gtpahequ7ttsq9&response_type=code&scope=email+openid+phone&

Sign in with your email and password

Email: name@host.com

Password: Password

User is added and able to redirect on api gateway



Users (1) Info

View, edit, and create users in your user pool. Users that are enabled and confirmed can sign in to your user pool.

Delete user | Create user

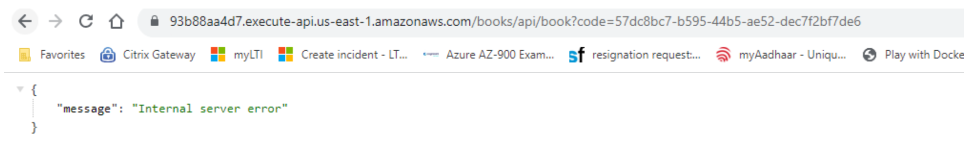
Property: User name | Search users by attribute

User name	Email address	Email verified	Confirmation status	Status
64c8d468-0041-7000-...	dnyaneshwar.kale...	Yes	Confirmed	Enabled

Import users (0) Info

View and create user CSV import jobs. Amazon Cognito can import users into this user pool from a specially-formatted CSV file. You can't import user passwords.

Start | Stop | Create import job



```
{
    "message": "Internal server error"
}
```

Sign in by updating url replace response_type -> code with token to generate idtoken

https://book-app.auth.us-east-1.amazoncognito.com/login?client_id=5i0ql0rglc9ju438m486v3cakk&response_type=token&scope=aws.cognito.signin.user.admin+email+openid+phone+profile&redirect_uri=https%3A%2F%2F93b88aa4d7.execute-api.us-east-1.amazonaws.com%2Fbooks%2Fapi%2Fbook

Copy token from url

https://93b88aa4d7.execute-api.us-east-1.amazonaws.com/books/api/book#id_token=eyJraWQiOiJsWk1ubmZqZFY2YXVkR3RMZVZaRks1K3NVVjVDU1hiUGYyOWRPbitHb2NRPSIsImFsZyI6IlJTMjU2In0.eyJhdF9oYXNoIjoiQVowQ0VUWF80ODBBSWpKRXV3dGI5dyIsInN1YiI6ImM0NDhhNDA4LTQwNTEtNzAzNC1jNDMwLWQ1N2JiMjc4ZmI2MyIsImVtYWlsX3ZlcmlmaWVkIjp0cnVlLCJpc3MiOiJodHRwczpcL1wvY29nbml0by1pZHAudXMtZWFzdC0xLmFtYXpvbmF3cy5jb21cL3VzLWVhc3QtMV9lWlNGbXBNRTIiLCJjb2duaXRvOnVzZXJuYW1lIjoiYzQ0OGE0MDgtNDA1MS03MDM0LWM0MzAtZDU3YmIyNzhmYjYzIiwiYXVkIjoiNWkwcWwwcmdsYzlqdTQzOG00ODZ2M2Nha2siLCJldmVudF9pZCI6IjU2YjFiZjMxLWMwNGMtNGQyNi1iZjE5LTMxZmIyZjBmY2ZlYyIsInRva2VuX3VzZSI6ImlkIiwiYXV0aF90aW1lIjoxNjkwNTY5OTgzLCJleHAiOjE2OTA1NzM1ODMsImlhdCI6MTY5MDU2OTk4MywianRpIjoiODlkMDVkMGYtZmJhMS00MDhhLWExODMtNzE0Y2U1ZmMwNWE2IiwiZW1haWwiOiJkbnlhbmVzaHdhci5rYWxlQGxudGluZm90ZWNoLmNvbSJ9.YW61hIJOEHilPg2_Z7ioj9keAPuIu2ZkcBjAuwchwe1Dd5ZEBWkFoS4xh4DNGPEBs1j19Vv0hgKtO8P5EnuOqgxeqs_U_lNwO2SwP-0wY_KiH4GqPc-8l_oc30NGSt6vTYA2bCy1_ojANHFOHkI9yoYhcRLShhqU77SHRiEFkerZAixr1-Eg-taVAL0jxNWd9Jupog0_jCbc9RNfkBKj5hHpGXz43ahrrYBV-

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OR

Generate token using aws cli

```
aws cognito-idp admin-initiate-auth --user-pool-id us-east-1_eZSFmpME2 --client-id 1cpfhk4mtilmm9eh8nfu0ejbtm --auth-flow ADMIN_NO_SRP_AUTH --auth-parameters USERNAME=dnyaneshwar.kale@lntinfotech.com,PASSWORD=Ltim@123
```

```
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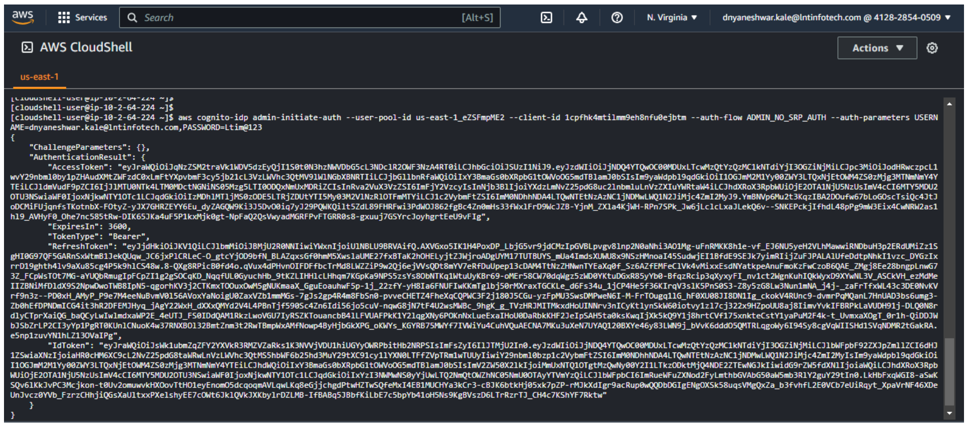
}

}



```
[cloudshell-user@ip-10-2-64-224 ~]$
[cloudshell-user@ip-10-2-64-224 ~]$ aws cognito-idp admin-initiate-auth --user-pool-id us-east-1_eZSFmpME2 --client-id 1cpfhk4mtilmm9eh8nfu0ejbtm --auth-flow ADMIN_NO_SRP_AUTH --auth-parameters USERN
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{
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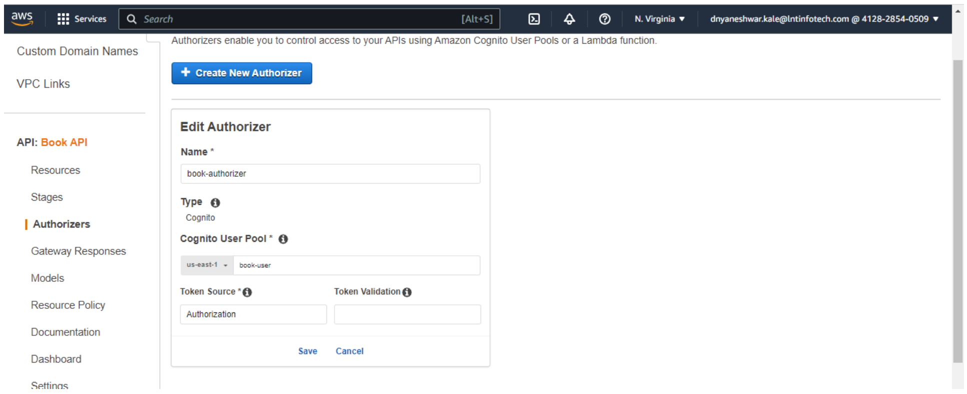
IIZBNiMfD1dX9S2NpwDwoTWB8IpN5-qgorhKV3j2CTKmxTOOuxOwM5gNUKmaaX_GguEoauhwF5p-1j_22zfY-yH8Ia6FNUFIwKKmTglbj50rMXraxTGCKLe_d6Fs34u_1jCP4He5f36KIrqV3s1K5PnS0S3-Z8y5zG8Lw3Nun1mNA_j4j-_zaFrTfxWL43c3DE0NvKV
rf9n3z--PD0xH_AMyP_P9e7M4eeNuBvmV0156AVoxYaNoigU0ZaxVZb1mmMGs-7gJs2gp4R4m8FbSn0-pvveCHETZ4FheXqCQPWC3F2j180J5CGu-yzFpMU3SwsDMPweN6I-M-FrTOugq11G_hF0XU08JI8DN1Ig_ckokV4RUnc9-dvmrPqMQanL7HnUAD3bs6umg3-
Zb0hEfDPNDmICG4it3hR2DFEMJHyq_jAgY22WxH_dXXxQMYd2V4L4PBnTjf590Sc4Zn6Idi56jo5cuV-nqwG8jN7tF4U2wsMWBc_9hgK_g_TVzHRJMITMkxdHoUINNrv3nICyKtlynSkW60iotvy1z17cj322x9HZpoUU8aj8IimvYvkIFBRPkLaVUDH91j-DLQ0N8r
dlyCTprXaiQG_baQCyLwIwlmdxaWP2E_4eUTJ_FS0IDdQAM1RkzLwoVGU7IyRSZKTouancbB41LFVUAFPkK1Y21qgXNy6POKnNxLueExaIHoU0DaRbkKHF2JeIpSAH5ta0ksKwqIjXk5kQ9Y1j8hrtCVf175xnkteCstY1yaPuM2F4k-t_UvmxaXOgT_0r1h-QiDDJW
bJSbZrLP2CI3yYp1PgRT0KUnlCNuoK4w37RNXBOl32BmtZnm3t2RwTBmpWxAMfNowp4ByHjbGkXPG_oKWYs_KGYRB75MWYf7IVWiYu4CuhVQuAECNA7MKu3uXeN7UYAQ120BXYe46y83LWN9j_bVvK6dddO5QMTRLqgoWy6I94Sy8cgVqWIISHd1SVqNDMR2tGakRA.
e5np1zuvYN1hLZ13OVaIPg",
        "IdToken": "eyJraWQiOiJsWk1ubmZqZFY2YXVkR3RMZVZaRks1K3NVVjVDU1hiUGYyOWRPbitHb2NRPSIsImFsZyI6IlJTMjU2In0.eyJzdWIiOiJjNDQ4YTQwOC00MDUxLTcwMzQtYzQzMC1kNTdiYjI3OGZiNjMiLCJlbWFpbF92ZXJpZmllZCI6dHJ
1ZSwiaXNzIjoiaHR0cHM6XC9cL2NvZ25pdG8taWRwLnVzLWVhc3QtMS5hbWF6b25hd3MuY29tXC91cy1lYXN0LTFfZVpTRm1wTUUyIiwiY29nbml0bzp1c2VybmFtZSI6ImM0NDhhNDA4LTQwNTEtNzAzNC1jNDMwLWQ1N2JiMjc4ZmI2MyIsIm9yaWdpbl9qdGkiOi
I1OGJmM2M1Yy00ZWY3LTQxNjEtOWM4ZS0zMjg3MTNmNmY4YTEiLCJhdWQiOiIxY3BmaGs0bXRpbG1tOWVoOG5mdTBlamJ0bSIsImV2ZW50X2lkIjoiMmUxNTQ1OTgtMzQwNy00Y2I1LTkzODktMjQ4NDE2ZTEwNGJkIiwidG9rZW5fdXNlIjoiaWQiLCJhdXRoX3Rpb
WUiOjE2OTA1NjU5NzUsImV4cCI6MTY5MDU2OTU3NSwiaWF0IjoxNjkwNTY1OTc1LCJqdGkiOiIxYzI3NWMwNS0yYjUwLTQ2NmQtOWZhNC05NmU0OTAyYTVmYzQiLCJlbWFpbCI6ImRueWFuZXNod2FyLmthbGVAbG50aW5mb3RlY2guY29tIn0.LkHbFxqWGI8-aSwK
SQv6lKkJvPC3Mcjkon-t0Uv2omuwvkHXOovTtHO1eyEnomO5dcqoqmAVLqwLKq8eGjjchgdPtwHZTwSQfeMxI4EB1MUCHYa3kCr3-cBJK6btkHj05xk7pZP-rMJkXdIgr9acRup0wQQDbDGIgENgOXSk58uqsVMgQxZa_b3fvhfL2E0VCb7eUiRqyt_XpaVrNF46XDe
UnJvcz0YVb_FzrzCHhjiQGsXaUltxxPXelshyEE7cOWt6JklQVkJXKbylrDZLMB-IfBABq5JBbfKiLbE7c5bpYb41oH5Ns9KgBVszD6LTrRzrTJ_CH4c7KShYF7Rktw"
    }
}
```

Go to your api gateway -> Authorizers and create with cognito

When creating client app



Authorizers enable you to control access to your APIs using Amazon Cognito User Pools or a Lambda function.

Edit Authorizer

Name * book-authorizer

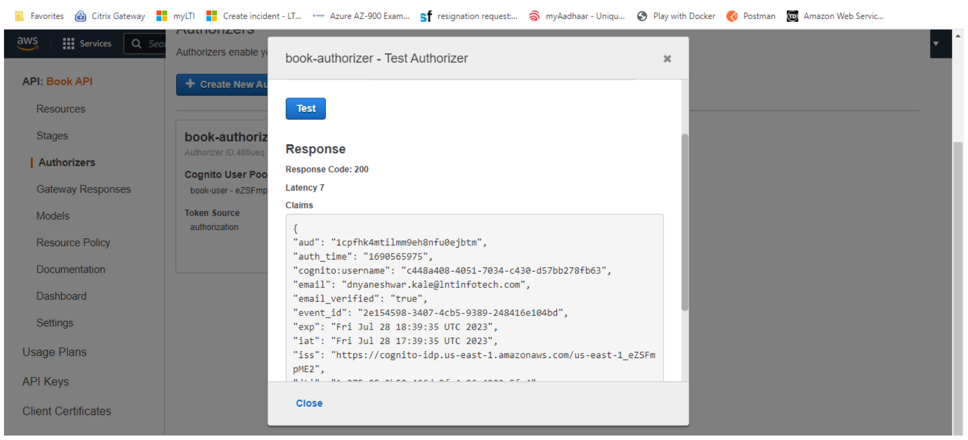
Type Cognito

Cognito User Pool * us-east-1 book-user

Token Source * Authorization

Token Validation

Copy id token and test Authorizer



Response

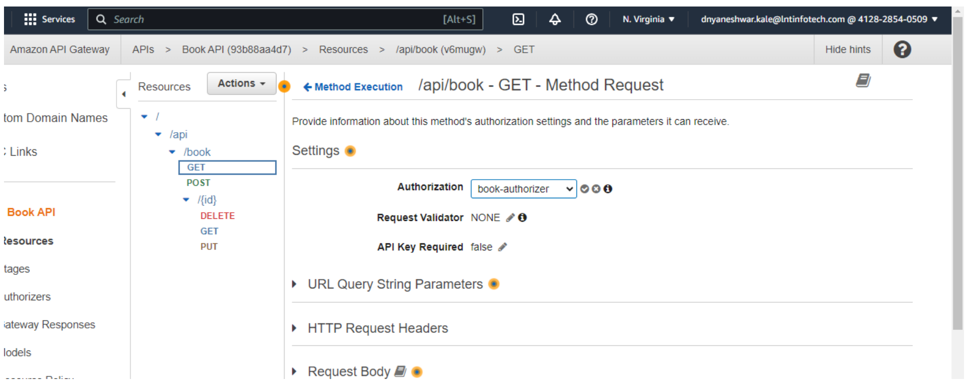
Response Code: 200

Latency 7

Claims

```
{
"aud": "1cpfhk4mtilmm9eh8nfu0ejbtm",
"auth_time": "1690565975",
"cognito:username": "c448a408-4051-7034-c430-d57bb278fb63",
"email": "dnyaneshwar.kale@lntinfotech.com",
"email_verified": "true",
"event_id": "2e154598-3407-4cb5-9389-248416e104bd",
"exp": "Fri Jul 28 18:39:35 UTC 2023",
"iat": "Fri Jul 28 17:39:35 UTC 2023",
"iss": "https://cognito-idp.us-east-1.amazonaws.com/us-east-1_eZSFm
pME2",
```

Add above authorizer in your resource method as below ,


Amazon API Gateway > APIs > Book API (93b88aa4d7) > Resources > /api/book (v6mugw) > GET
Resources
Actions
/
/api
/book
GET
POST
/{id}
DELETE
GET
PUT
Method Execution

/api/book - GET - Method Request

Provide information about this method's authorization settings and the parameters it can receive.

Settings

Authorization: book-authorizer

Request Validator: NONE

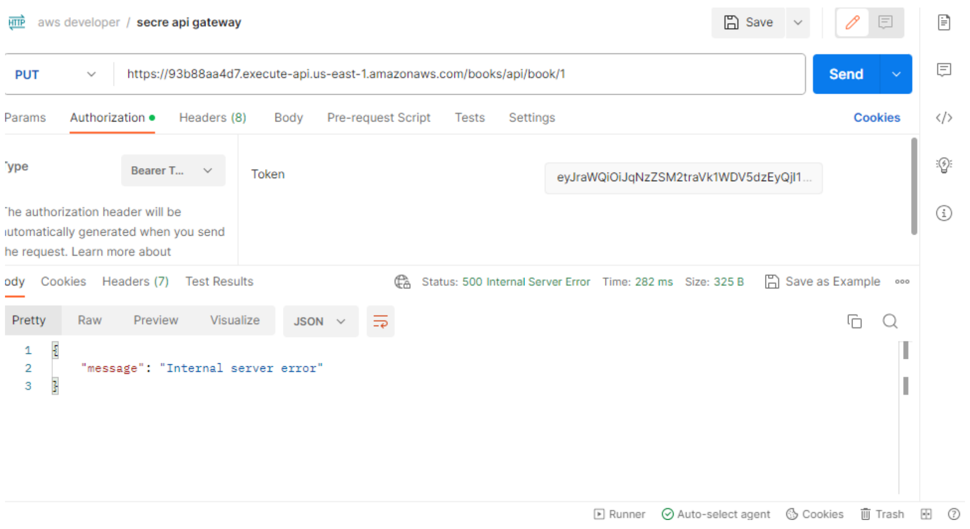
API Key Required: false

URL Query String Parameters

HTTP Request Headers

Request Body

Deploy it and test from postman


aws developer / secre api gateway

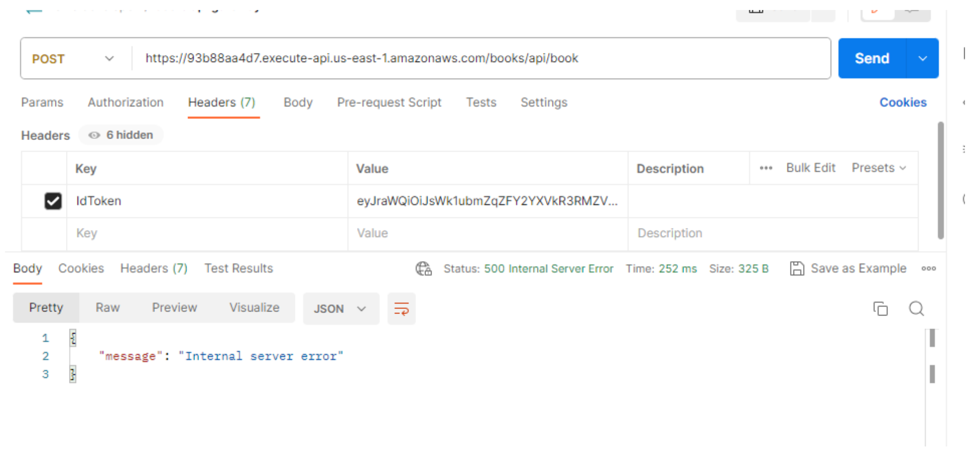
PUT https://93b88aa4d7.execute-api.us-east-1.amazonaws.com/books/api/book/1

Authorization: Type Bearer Token, Token eyJraWQiOiJqNzZSM2traVk1WDV5dzEyQjl1...

Status: 500 Internal Server Error Time: 282 ms Size: 325 B

```
{
    "message": "Internal server error"
}
```

OR


POST https://93b88aa4d7.execute-api.us-east-1.amazonaws.com/books/api/book

Headers (7)

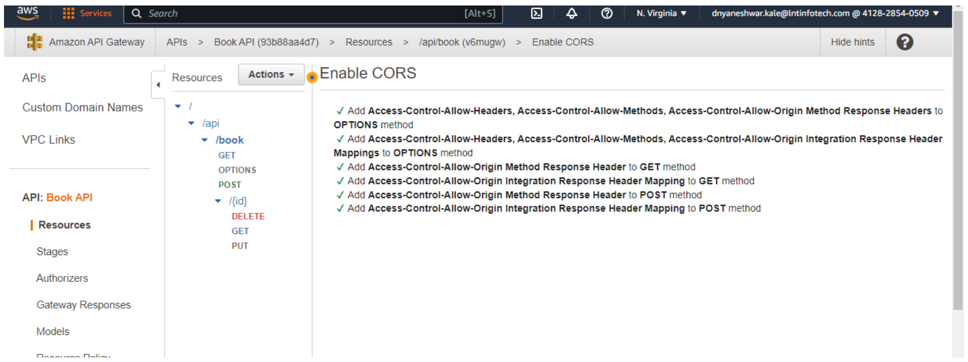
Key	Value	Description
IdToken	eyJraWQiOiJsWk1ubmZqZFY2YXVkR3RMZV...	

Status: 500 Internal Server Error Time: 252 ms Size: 325 B

```
{
    "message": "Internal server error"
}
```

Enbale CORS policy

https://medium.com/geekculture/simple-steps-to-enable-cors-in-api-gateway-through-console-cloud-formation-c09d9df31c07



Enable CORS

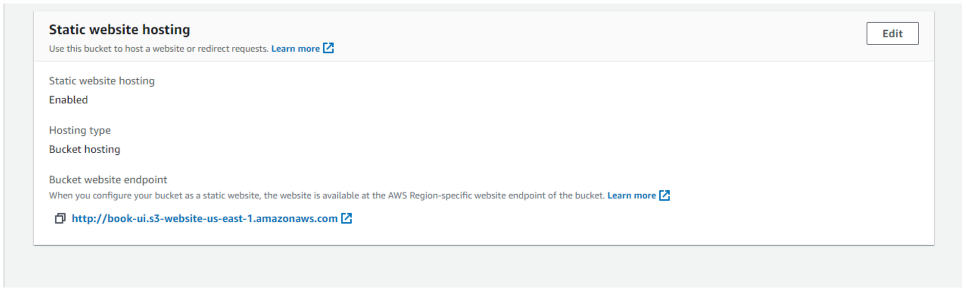
✓ Add **Access-Control-Allow-Headers, Access-Control-Allow-Methods, Access-Control-Allow-Origin Method Response Headers** to **OPTIONS** method
✓ Add **Access-Control-Allow-Headers, Access-Control-Allow-Methods, Access-Control-Allow-Origin Integration Response Header Mappings** to **OPTIONS** method
✓ Add **Access-Control-Allow-Origin Method Response Header** to **GET** method
✓ Add **Access-Control-Allow-Origin Integration Response Header Mapping** to **GET** method
✓ Add **Access-Control-Allow-Origin Method Response Header** to **POST** method
✓ Add **Access-Control-Allow-Origin Integration Response Header Mapping** to **POST** method

Build and deploy in s3

Build - ng build --configuration production --aot=false --build-optimizer=false

Deploy in s3

https://baljindersingh013.medium.com/angular-app-deployment-with-aws-s3-42d9008734ab



Static website hosting
Use this bucket to host a website or redirect requests. Learn more

Static website hosting
Enabled

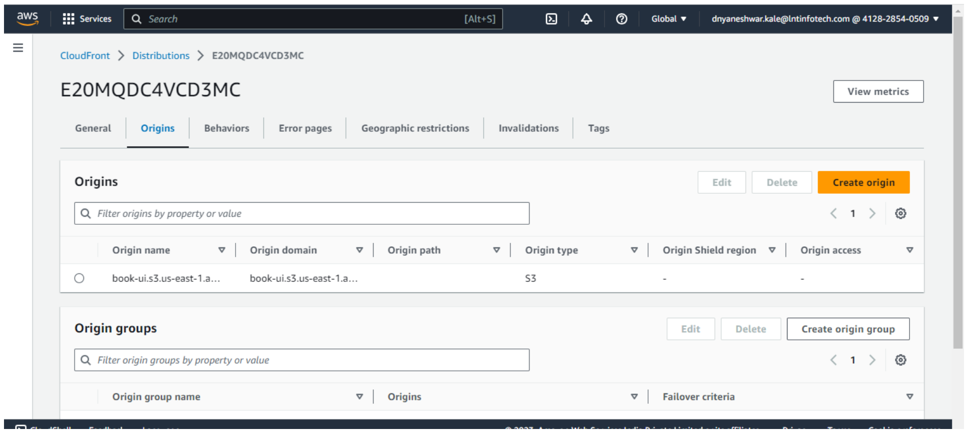
Hosting type
Bucket hosting

Bucket website endpoint
When you configure your bucket as a static website, the website is available at the AWS Region-specific website endpoint of the bucket. Learn more

http://book-ui.s3-website-us-east-1.amazonaws.com

http://book-ui.s3-website-us-east-1.amazonaws.com/

Create CloudFormation for integrate with Cognito url redirect on https



E20MQDC4VCD3MC

Origins

Origin name	Origin domain	Origin path	Origin type	Origin Shield region	Origin access
book-ui.s3.us-east-1.a...	book-ui.s3.us-east-1.a...		S3	-	-

Origin groups

Origin group name	Origins	Failover criteria

Clean up all resources