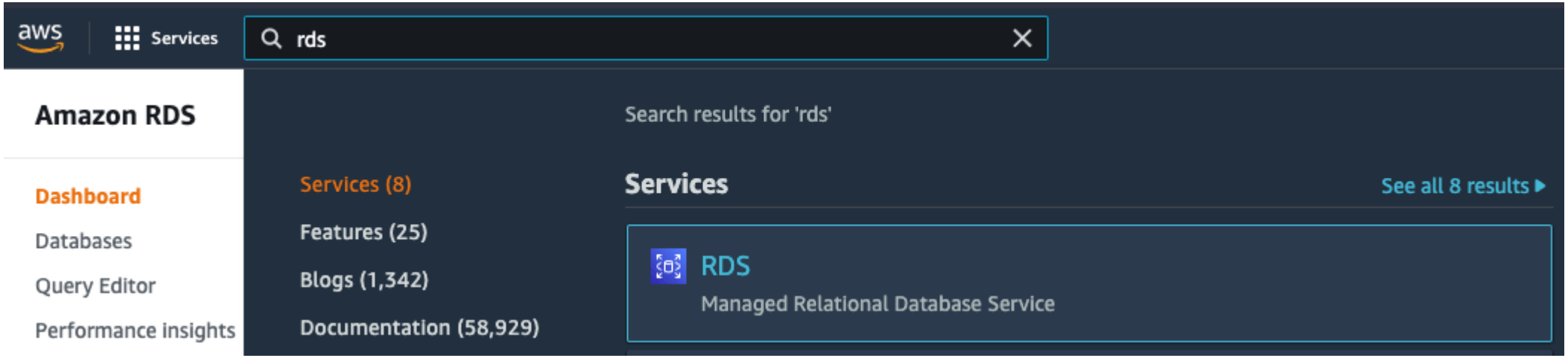
Infrastructure Description

AWS Services

- RDS Database.
- S3 Bucket.
- Elastic Beanstalk.

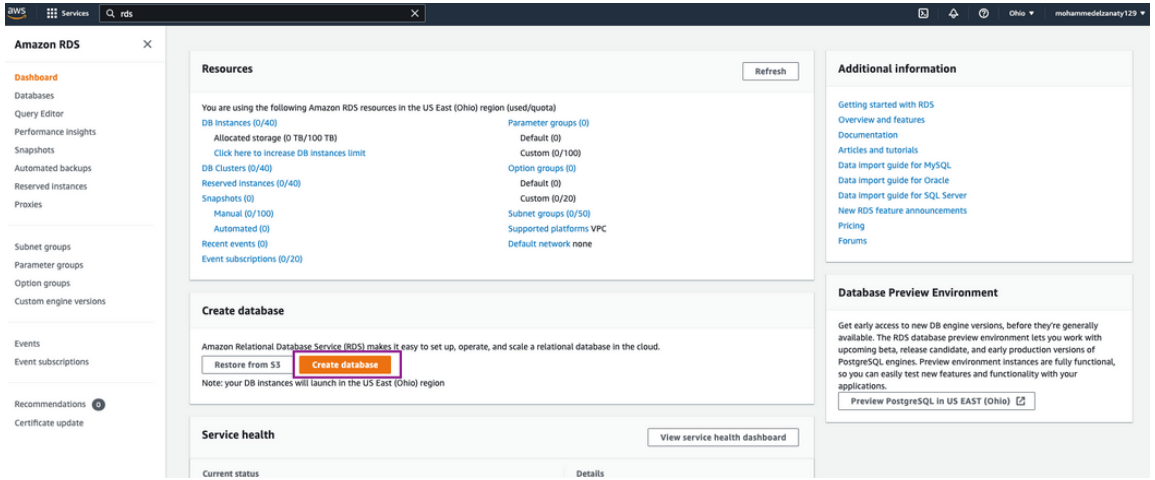
Create Database

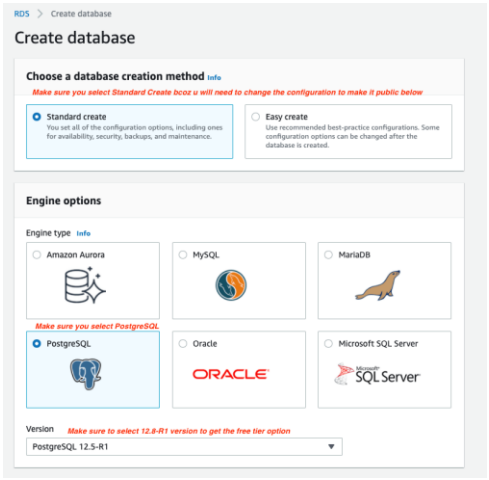
* Navigate to RDS :

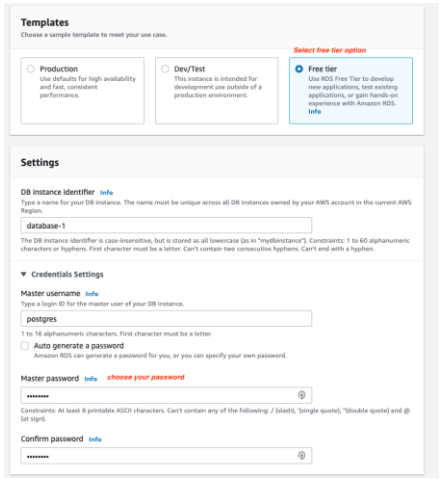


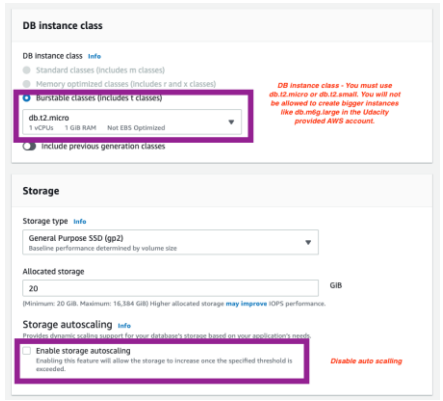
Create Database

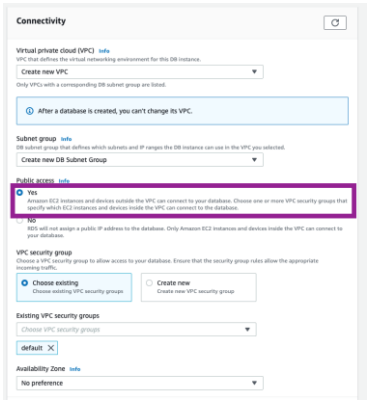
* Create Database:

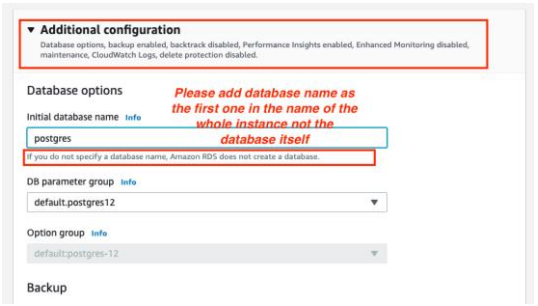


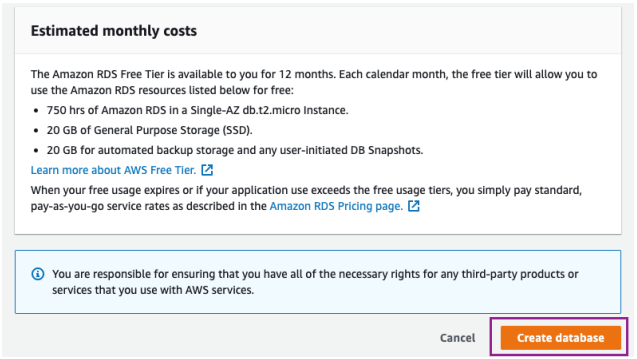






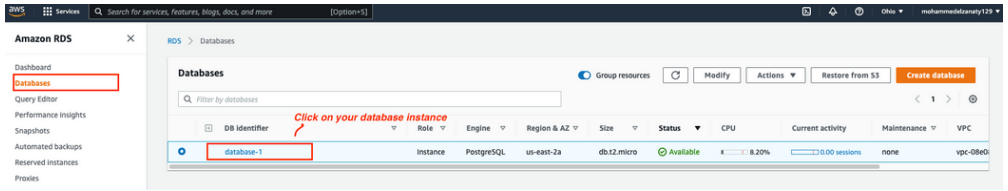


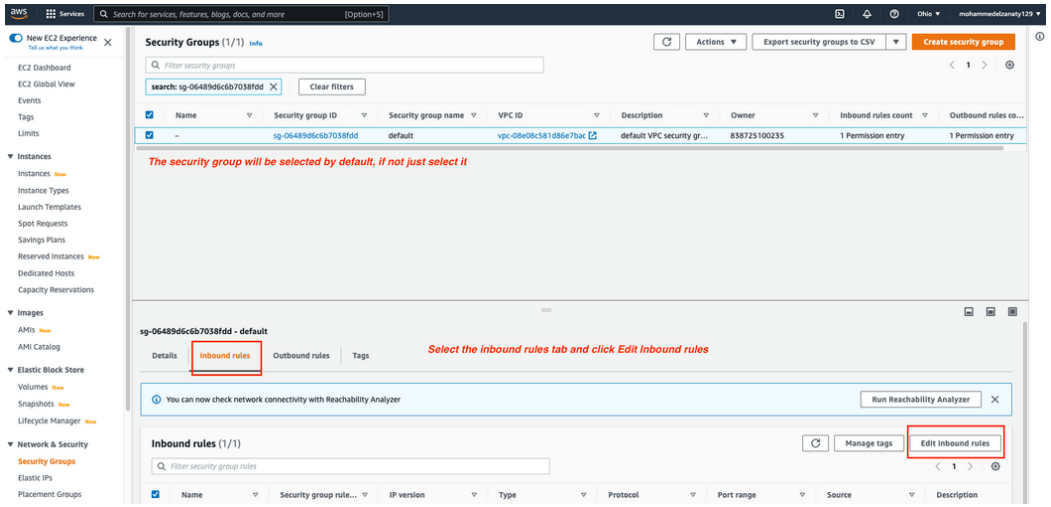


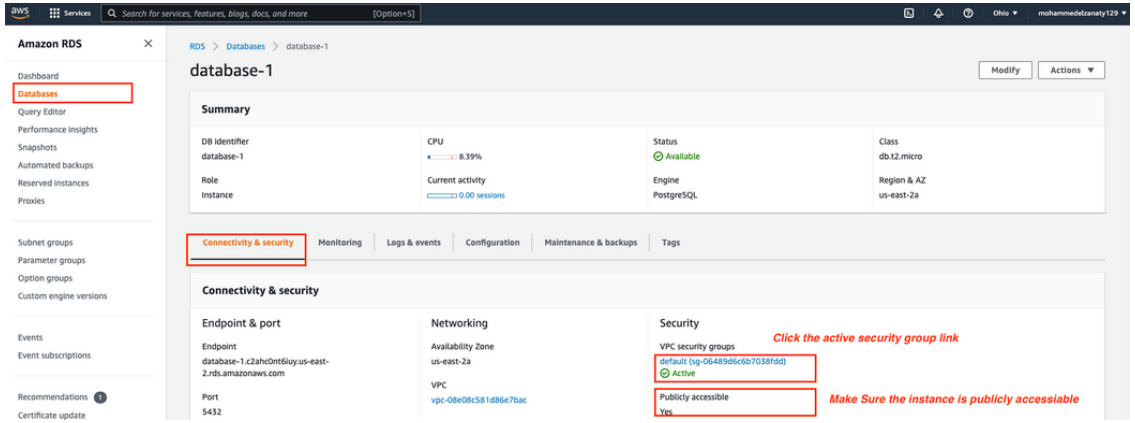


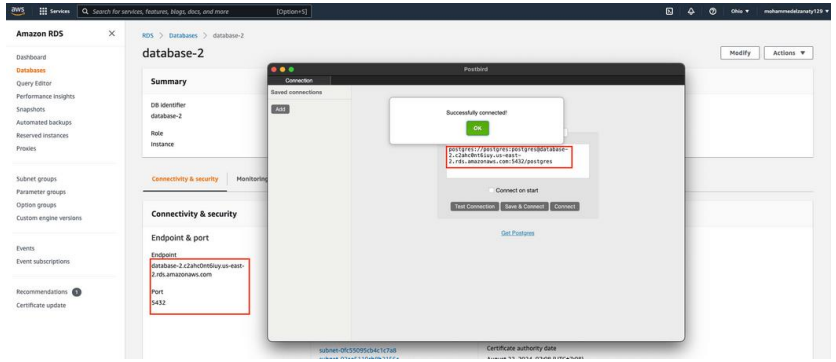
Create Database

* Edit Database & Check Connection:



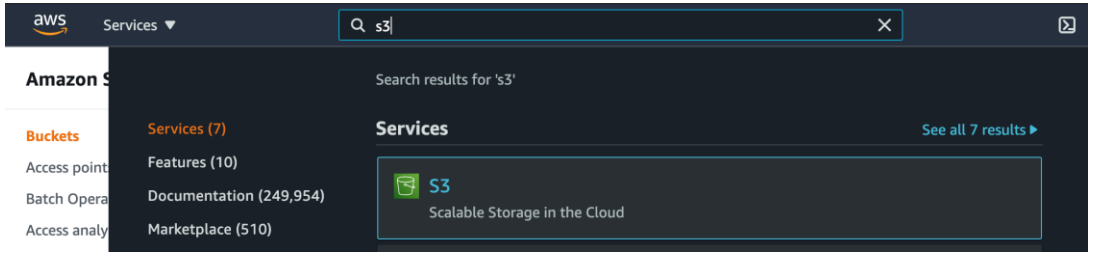


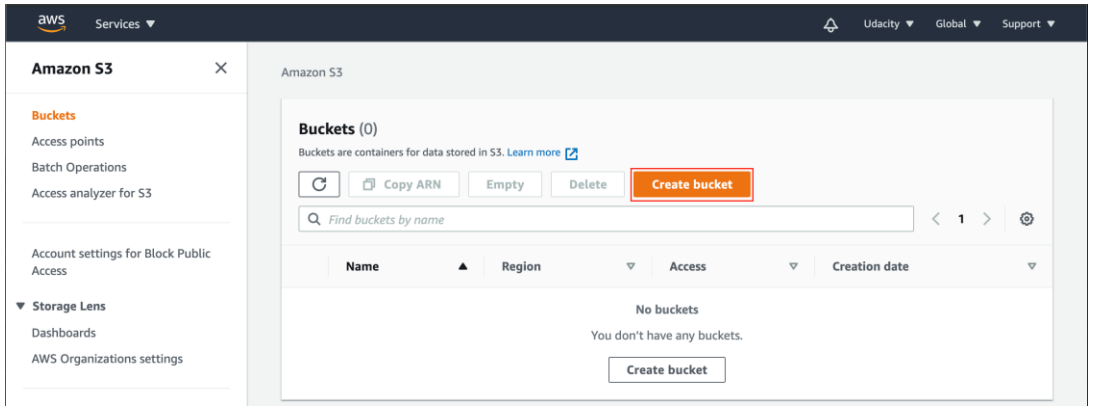


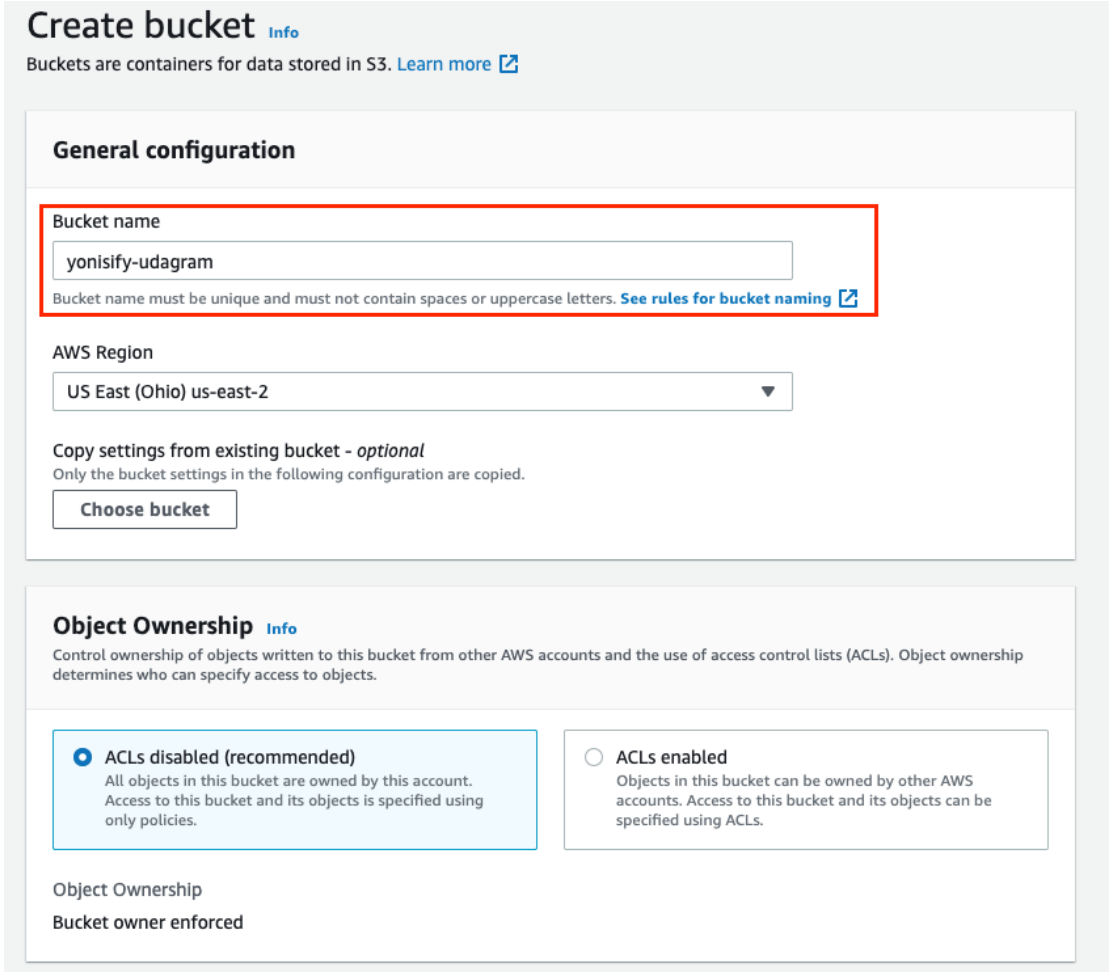


Create S3 Bucket

* Create S3 Bucket:

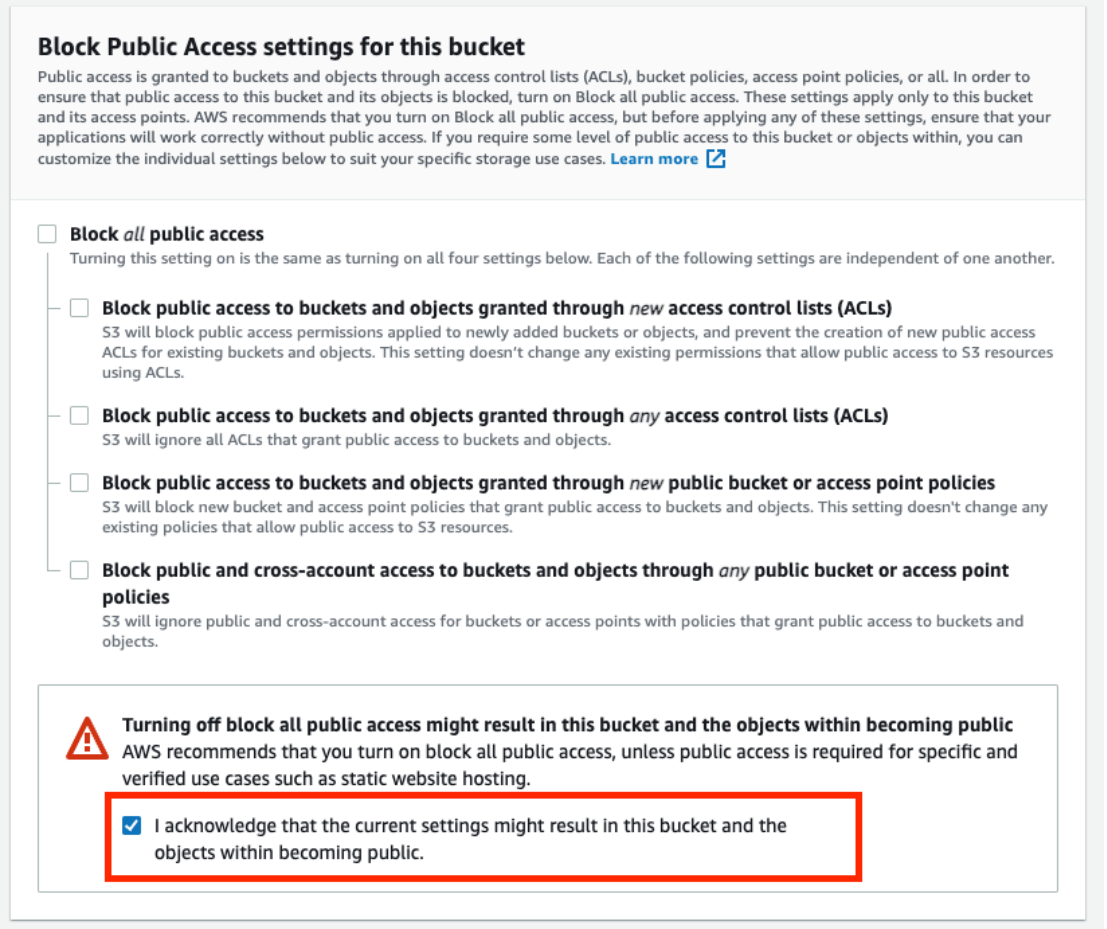


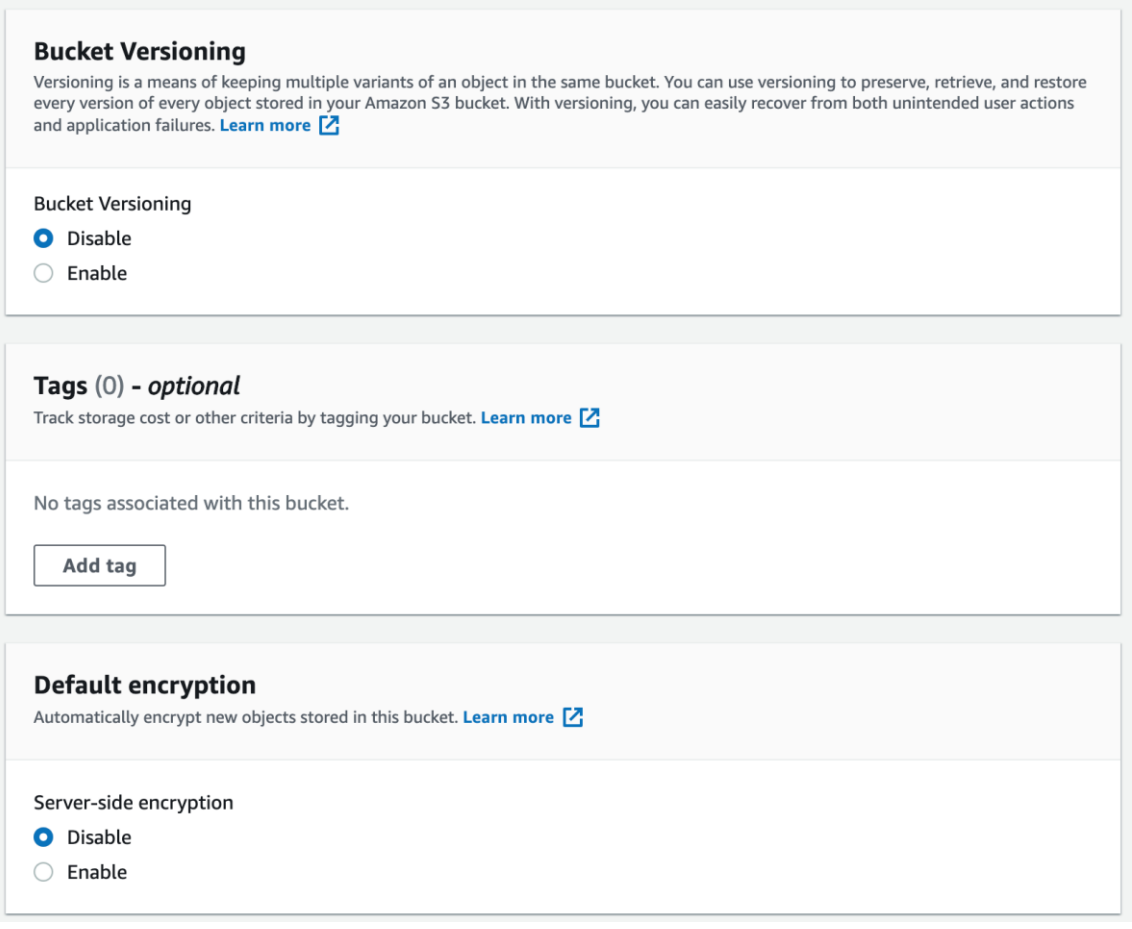




Create S3 Bucket

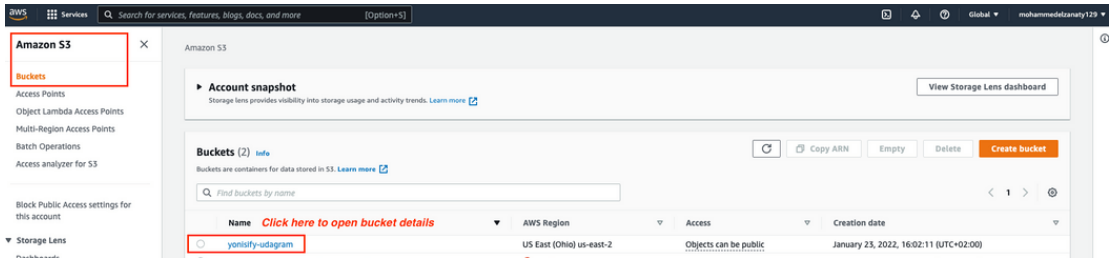
* Some Configuration in Create S3 Bucket:

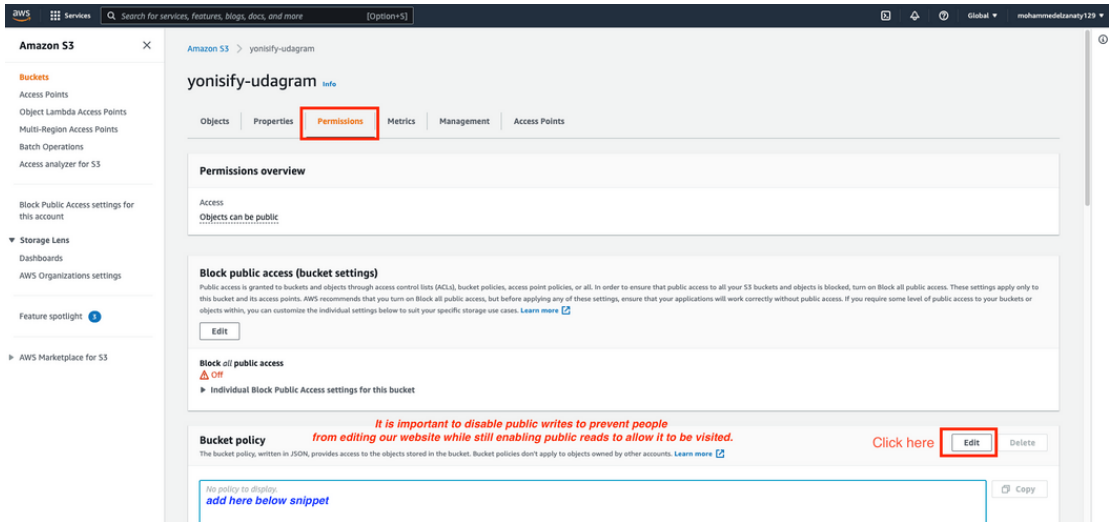


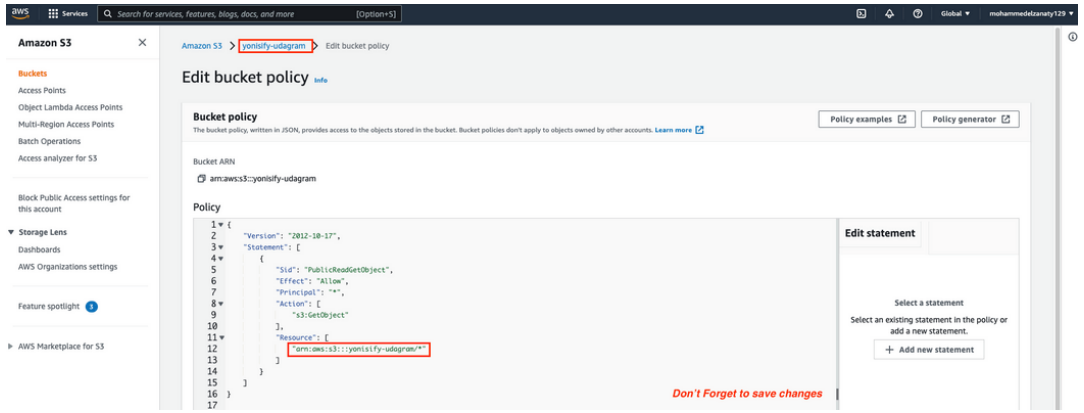


Create S3 Bucket

* Edit S3 Bucket Policy:

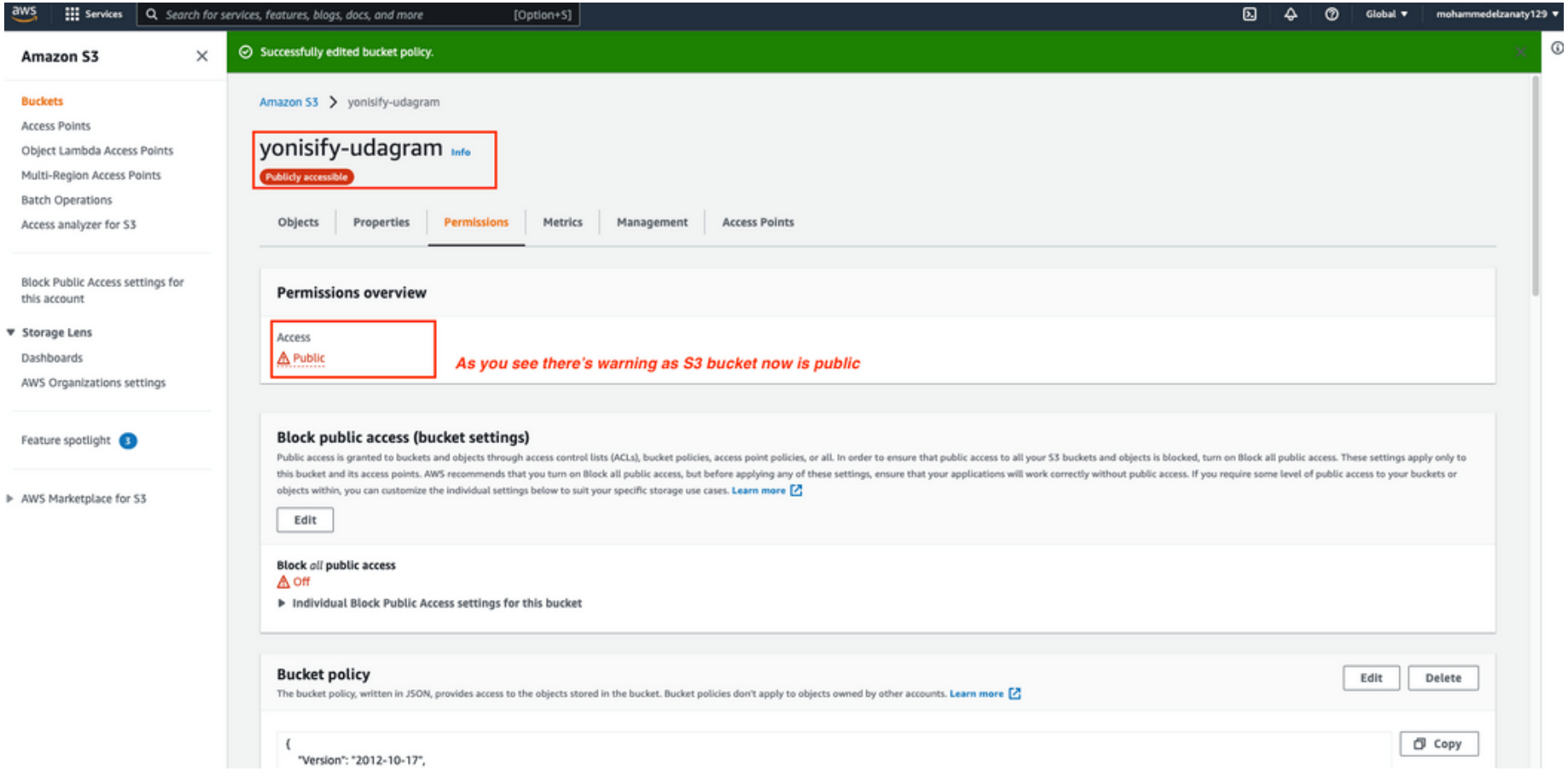






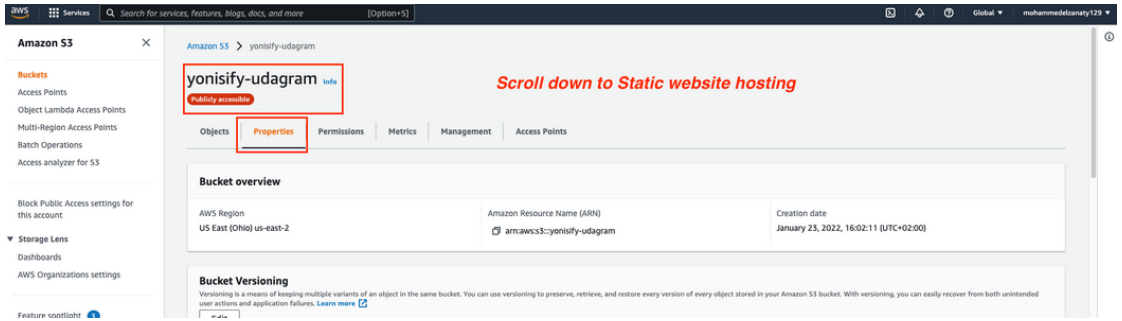
Create S3 Bucket

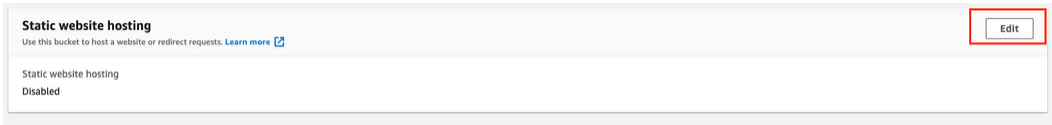
* Edit S3 Bucket Properties:

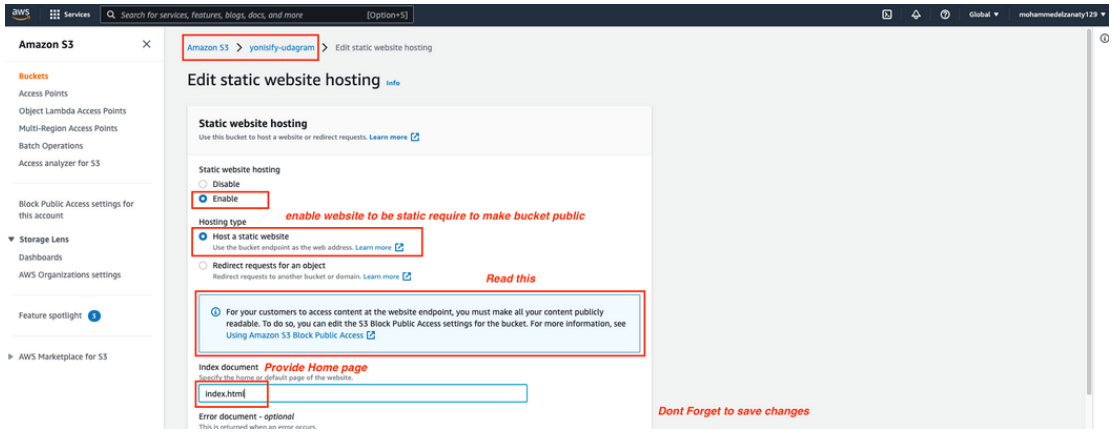


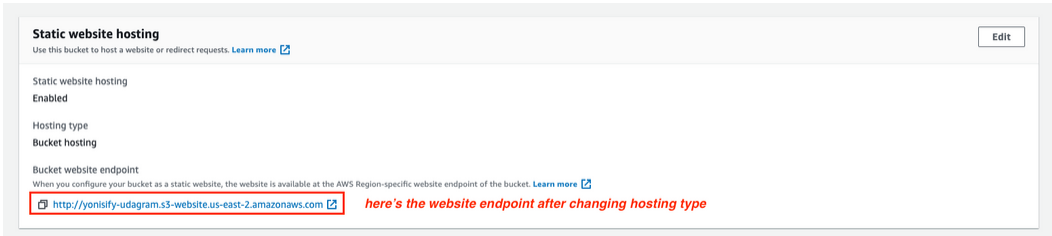
Create S3 Bucket

* Configure S3 Bucket Endpoint:



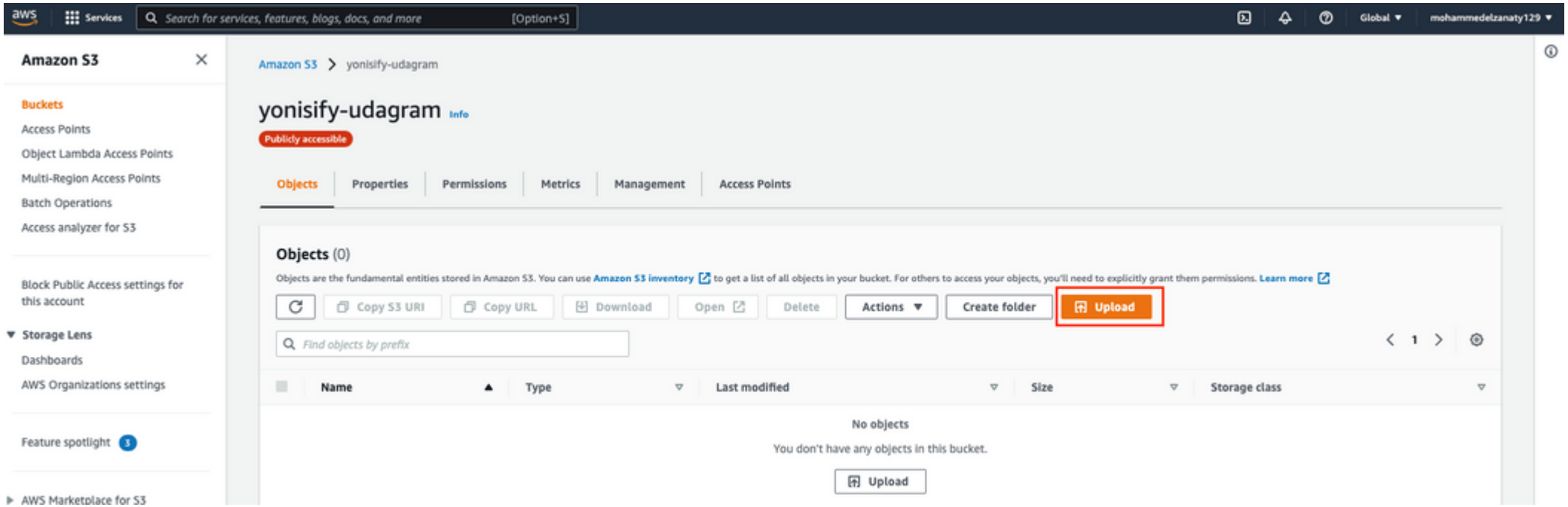






Create S3 Bucket

* Upload Files:

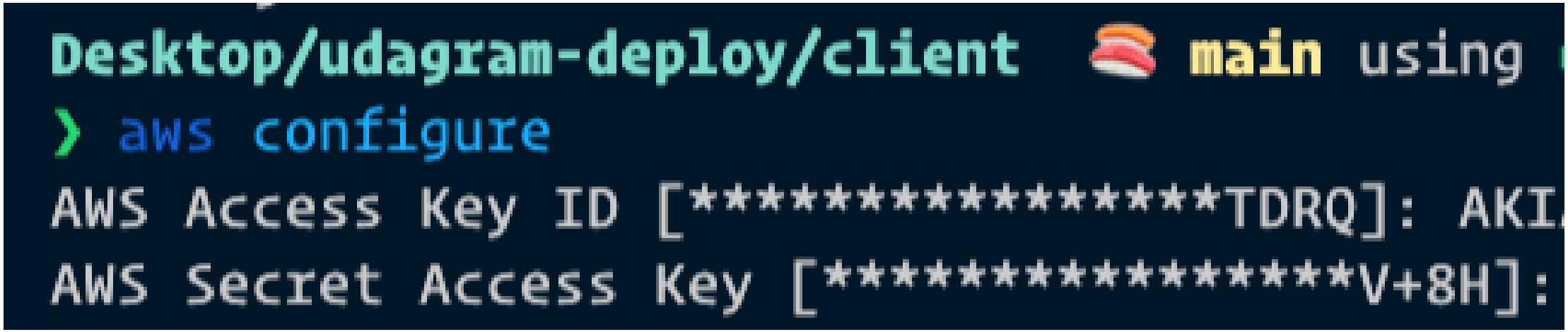


* Upload Files With Terminal or Circle CI:

```
aws s3 cp --recursive --acl public-read ./www s3://yonisify-udagram/
```

Create S3 Bucket

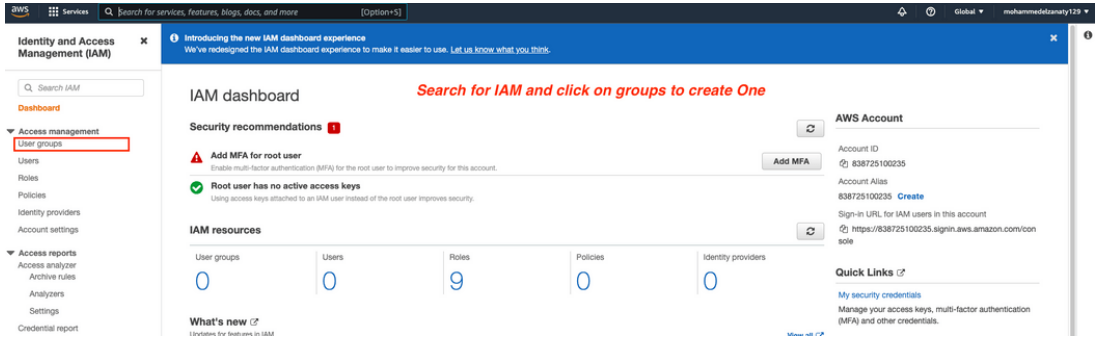
* AWS Configurations:

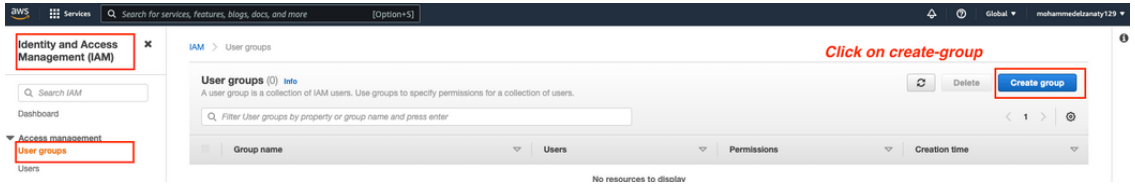


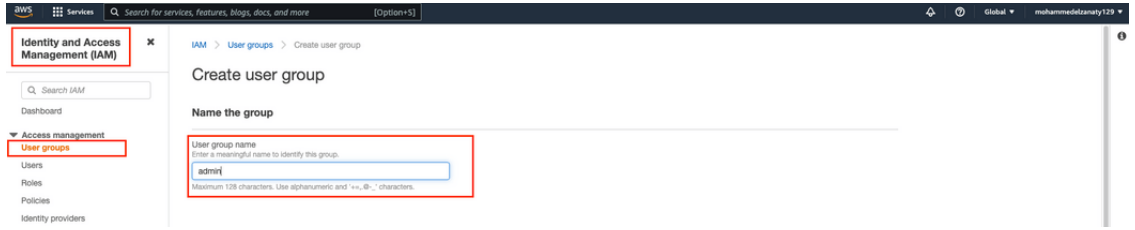
- But First You need to create IAM user.

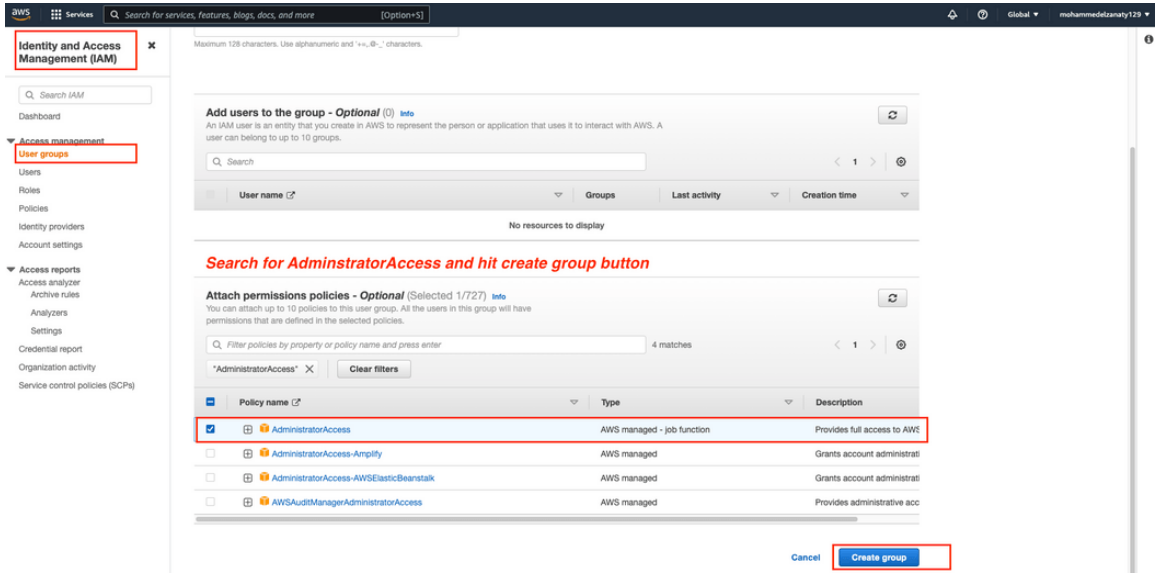
Create S3 Bucket

* Create IAM User: (Create User Group)



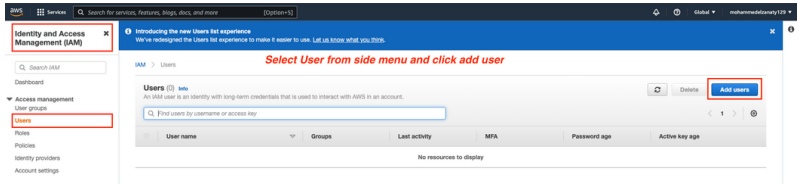


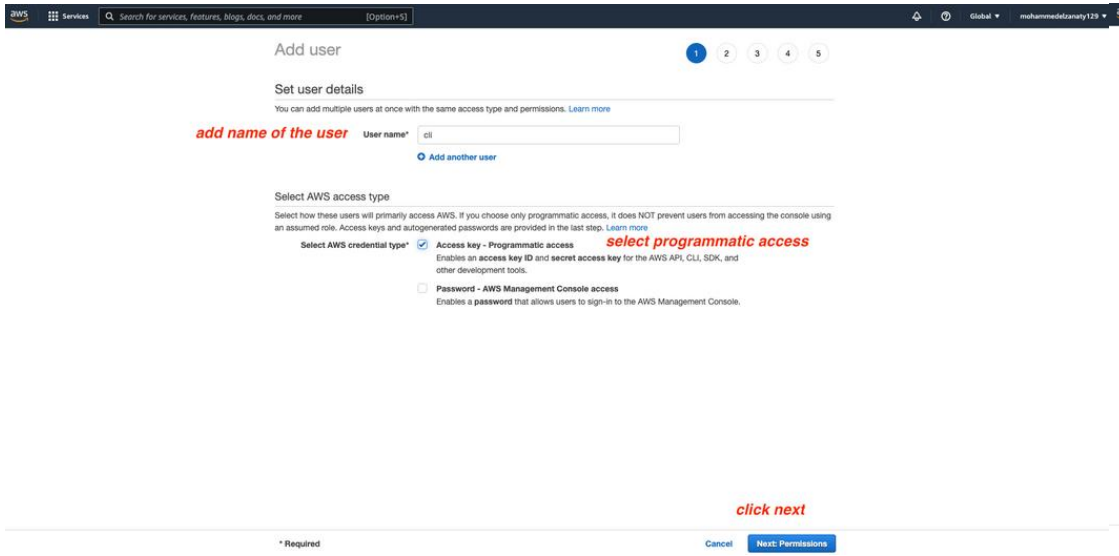


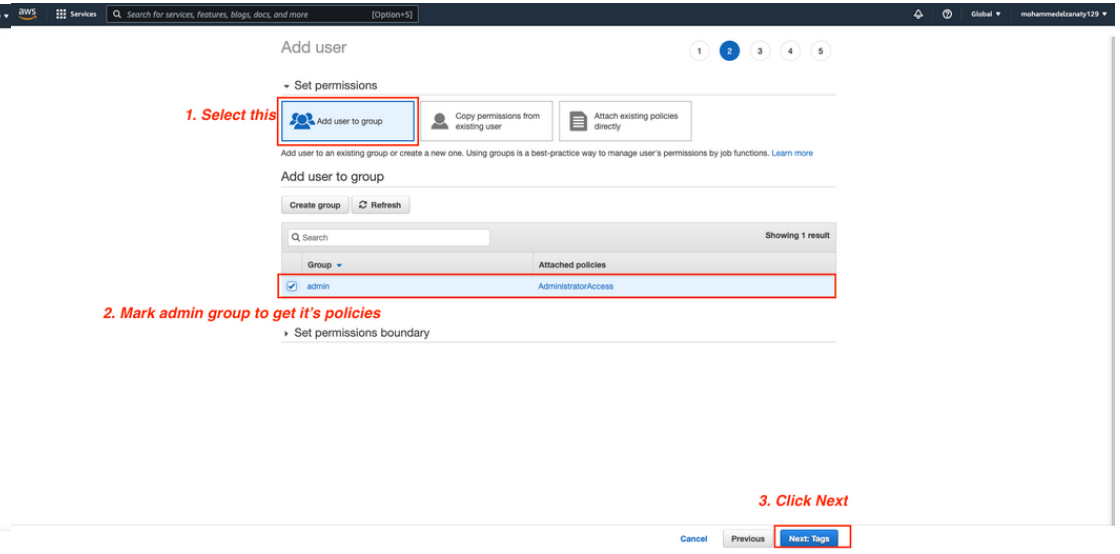


Create S3 Bucket

* Create IAM User: (Create User 01)

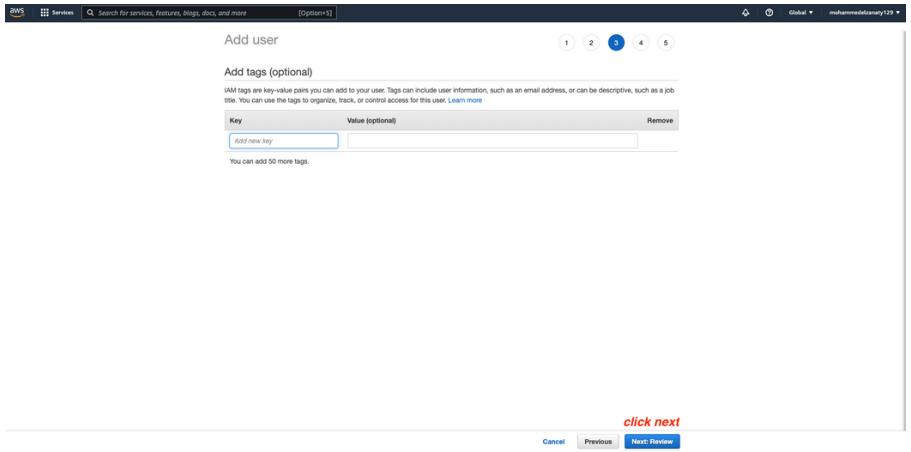






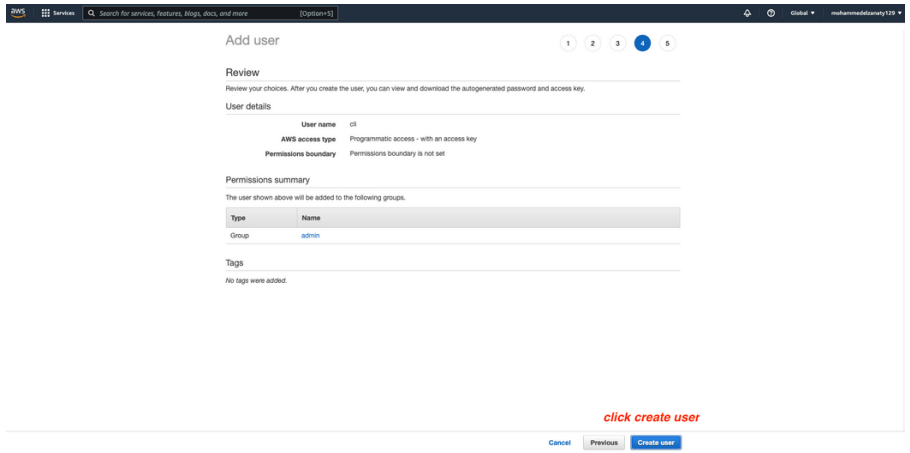
Create S3 Bucket

* Create IAM User:

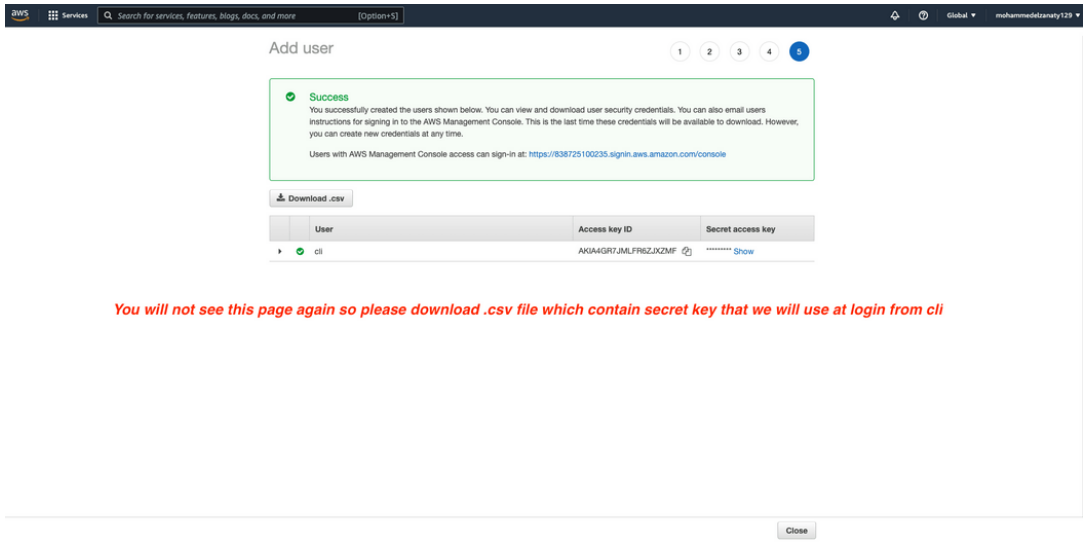


click next

(Create User 02)



click create user

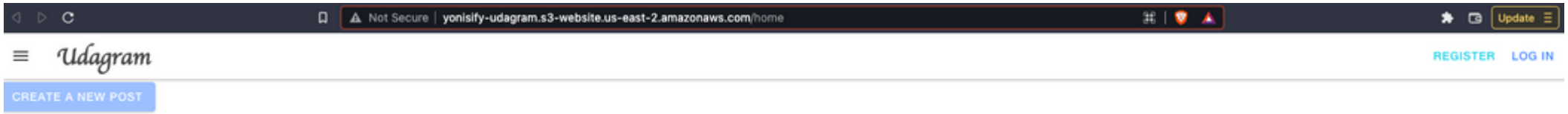


You will not see this page again so please download .csv file which contain secret key that we will use at login from cli

Create S3 Bucket

* Uploading & Check Site:

```
Desktop/udagram-deploy/client  main using ● v16.13.2
❯ aws s3 cp --recursive --acl public-read ./www s3://yonisify-udagram/
upload: www/16.1f7581695895 24f569ff.js.LICENSE.txt to s3://yonisify-udagram/16.1f7581695895 24f569ff.js.LICENSE.txt
upload: www/2.f5f69f369cdee4245175.js to s3://yonisify-udagram/2.f5f69f369cdee4245175.js
upload: www/17.9402a5f14a347d20862a.js to s3://yonisify-udagram/17.9402a5f14a347d20862a.js
upload: www/15.c44aea2ff4e2b6093903.js to s3://yonisify-udagram/15.c44aea2ff4e2b6093903.js
upload: www/14.a2eaa8d06cda75322318.js to s3://yonisify-udagram/14.a2eaa8d06cda75322318.js
upload: www/24.88270e18927606f4a2c0.js to s3://yonisify-udagram/24.88270e18927606f4a2c0.js
upload: www/25.178d87f4b468290d794c.js to s3://yonisify-udagram/25.178d87f4b468290d794c.js
upload: www/26.154cabc7127dd0504352.js to s3://yonisify-udagram/26.154cabc7127dd0504352.js
upload: www/16.1f7581695895 24f569ff.js to s3://yonisify-udagram/16.1f7581695895 24f569ff.js
```



Create Elastic Beanstalk Server

* Create Sample Environment In The Project First:

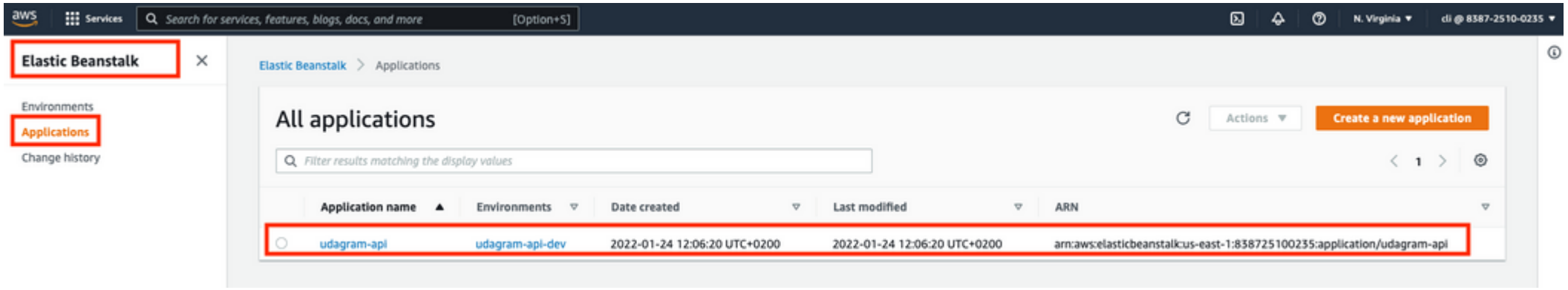
```
Desktop/udagram-deploy/server main ×1 ×3 ×1 v1.0.0 using v16.13.2 took 8s
❯ eb init udagram-api --platform node.js --region us-east-1
Application udagram-api has been created.
```

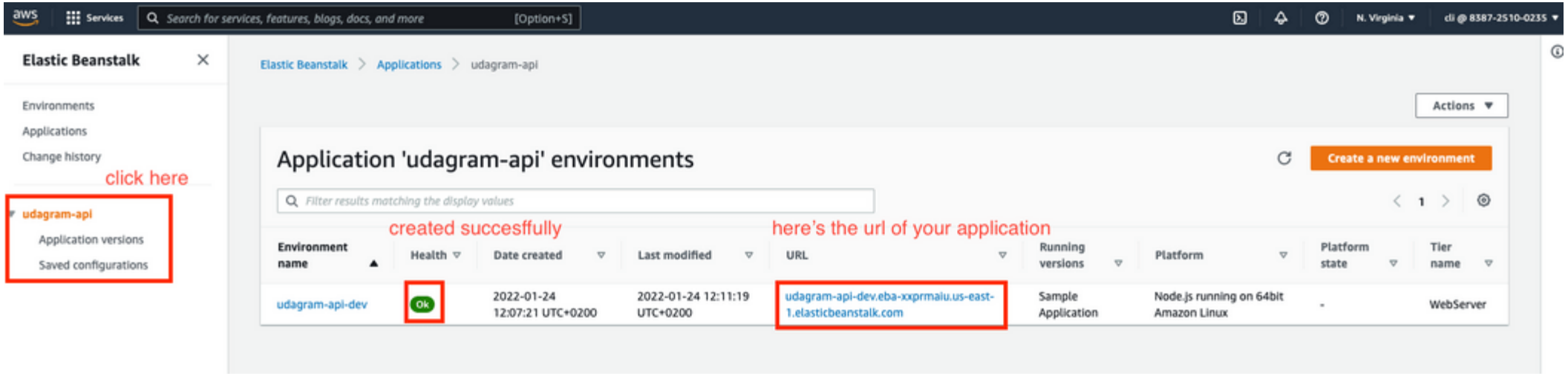
```
Desktop/udagram-deploy/server main ×4 ×1 v1.0.0 using v16.13.2 took 4s
❯ eb create --sample udagram-api-dev
Environment details for: udagram-api-dev
  Application name: udagram-api
  Region: us-east-1
  Deployed Version: Sample Application
  Environment ID: e-9y9ap2iv8h
  Platform: arn:aws:elasticbeanstalk:us-east-1::platform/Node.js running on 64bit Amazon Linux/4.17.13
  Tier: WebServer-Standard-1.0
  CNAME: UNKNOWN
  Updated: 2022-01-24 10:07:21.257000+00:00
Alert: Your environment is using a deprecated platform branch. It might not be supported in the future.

Printing Status:
2022-01-24 10:07:19    INFO    createEnvironment is starting.
2022-01-24 10:07:21    INFO    Using elasticbeanstalk-us-east-1-838725100235 as Amazon S3 storage bucket for environment data.
2022-01-24 10:07:48    INFO    Created security group named: sg-0fdbe234651e13168
2022-01-24 10:08:03    INFO    Created load balancer named: awseb-e-9-AWSEBLoa-1OCWGD0VYS9EB
2022-01-24 10:08:03    INFO    Created security group named: awseb-e-9y9ap2iv8h-stack-AWSEBSecurityGroup-GJP0B4J1LTT0
2022-01-24 10:08:03    INFO    Created Auto Scaling launch configuration named: awseb-e-9y9ap2iv8h-stack-AWSEBAutoScalingLaunchConfiguration
-5Q6WV5BFWP08
2022-01-24 10:10:08    INFO    Created Auto Scaling group named: awseb-e-9y9ap2iv8h-stack-AWSEBAutoScalingGroup-1P1LK9N0473XA
2022-01-24 10:10:08    INFO    Waiting for EC2 instances to launch. This may take a few minutes.
2022-01-24 10:10:24    INFO    Created Auto Scaling group policy named: arn:aws:autoscaling:us-east-1:838725100235:scalingPolicy:ff9920ed-e9
2b-4fa9-a6fc-d3cea2e17f98:autoScalingGroupName/awseb-e-9y9ap2iv8h-stack-AWSEBAutoScalingGroup-1P1LK9N0473XA:policyName/awseb-e-9y9ap2iv8h-st
ack-AWSEBAutoScalingScaleDownPolicy-NM46EJRROOOQ
2022-01-24 10:10:24    INFO    Created Auto Scaling group policy named: arn:aws:autoscaling:us-east-1:838725100235:scalingPolicy:0cb3b4ad-9b
c3-4f4e-8f25-342ae0e40074:autoScalingGroupName/awseb-e-9y9ap2iv8h-stack-AWSEBAutoScalingGroup-1P1LK9N0473XA:policyName/awseb-e-9y9ap2iv8h-st
ack-AWSEBAutoScalingScaleUpPolicy-3EQNF5YJ14JB
2022-01-24 10:10:24    INFO    Created CloudWatch alarm named: awseb-e-9y9ap2iv8h-stack-AWSEBCloudwatchAlarmLow-1QD14M2CAAI5Z
2022-01-24 10:10:24    INFO    Created CloudWatch alarm named: awseb-e-9y9ap2iv8h-stack-AWSEBCloudwatchAlarmHigh-8OEW37BN3LQP
2022-01-24 10:11:18    INFO    Application available at udagram-api-dev.eba-xxprmaiu.us-east-1.elasticbeanstalk.com.
2022-01-24 10:11:19    INFO    Successfully launched environment: udagram-api-dev
```

Create Elastic Beanstalk Server

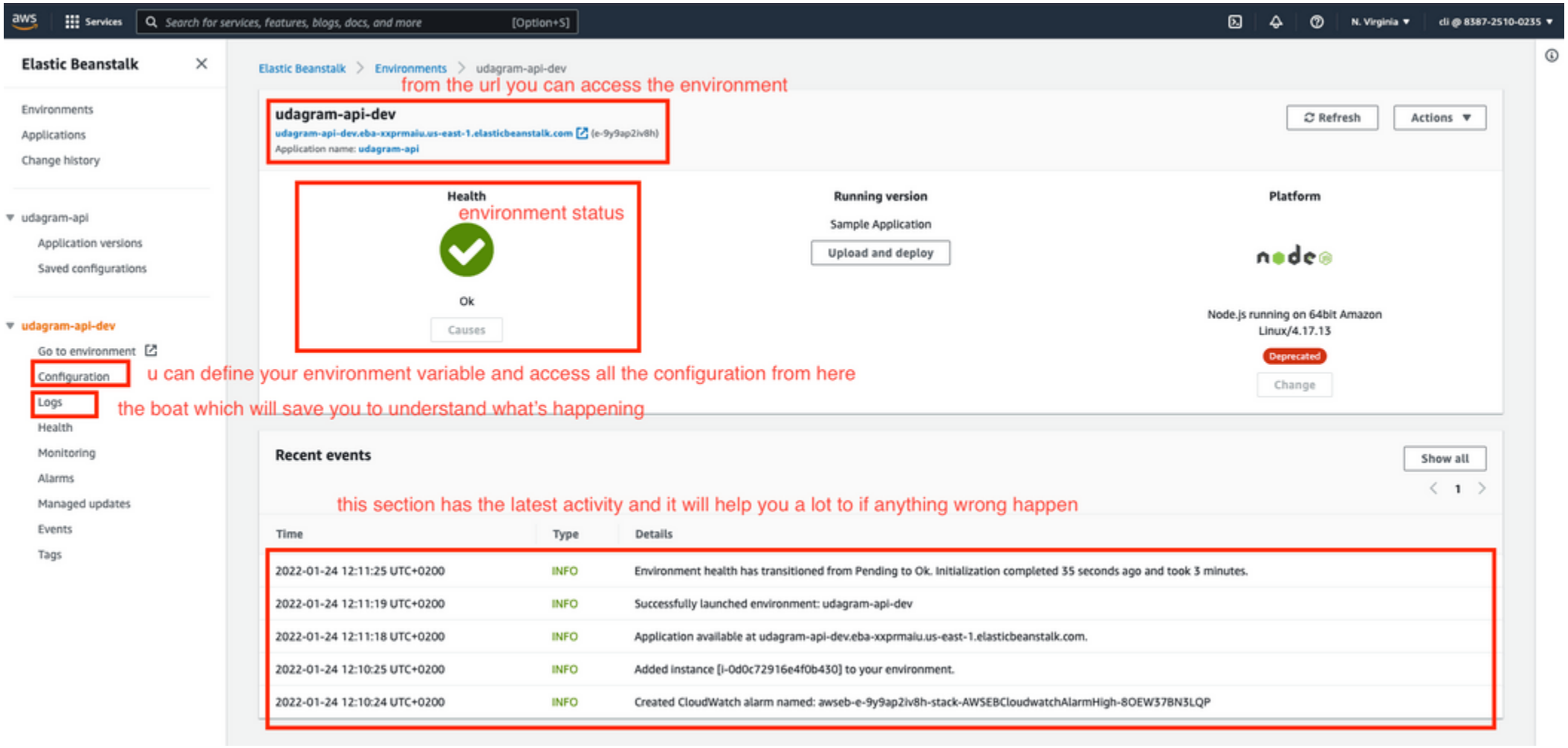
* The Sample Environment In AWS:





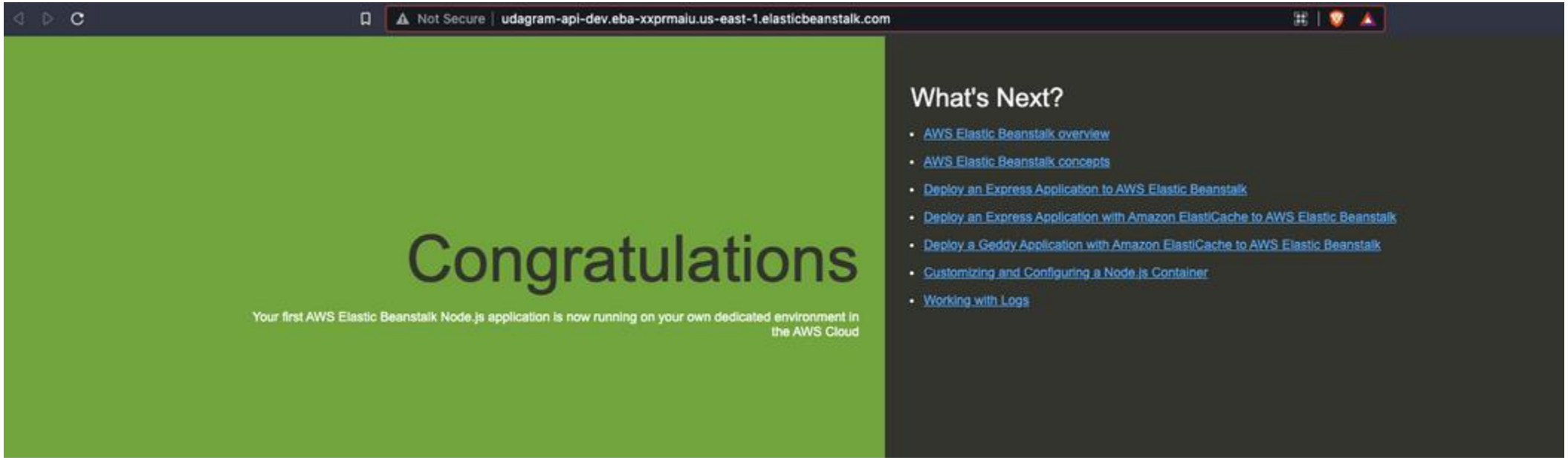
Create Elastic Beanstalk Server

* The Sample Environment In AWS:



Create Elastic Beanstalk Server

* The Sample Environment In AWS is Working:



Create Elastic Beanstalk Server

* Deploy Server To EB:

1. Use the environment in the project

```
eb use udagram-api-dev
```

2. Build Backend Files

```
Desktop/udagram-deploy/server  main  ×4  ×1  v1.0.0 using ● v16.13.2
✖  yarn build
yarn run v1.22.17
$ npm run clean && tsc && cp -rf src/config www/config && cp .npmrc www/.npmrc && cp package.json www/package.json && cd www && zip -r Archi
ve.zip . && cd ..

> udagram-server@1.0.0 clean
> rm -rf www || true
```

3. Specify The Archive File in Config.yml in Elastic Beanstalk Folder

```
5  deploy:
6    artifact: www/Archive.zip
```

Create Elastic Beanstalk Server

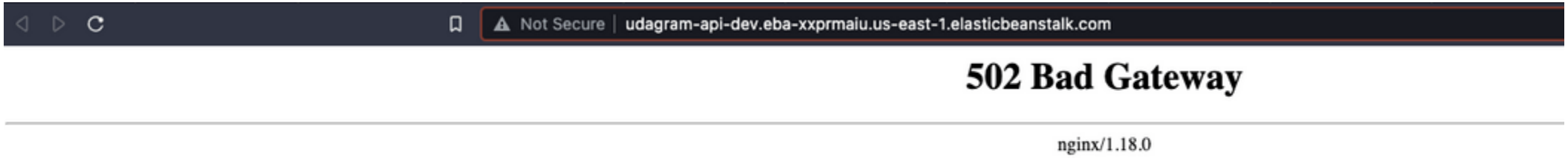
4. Deploy

```
Desktop/udagram-deploy/server  main  ×5 ×1  v1.0.0 using ● v16.13.2 took 8s
❯ eb deploy udagram-api-dev
Alert: Your environment is using a deprecated platform branch. It might not be supported in the future.

Creating application version archive "app-220124_122332".
Uploading: [##################################################] 100% Done...
2022-01-24 10:25:59    INFO    Environment update is starting.
2022-01-24 10:26:41    INFO    Deploying new version to instance(s).
2022-01-24 10:28:04    INFO    New application version was deployed to running EC2 instances.
 -- Events -- (safe to Ctrl+C) Use "eb abort" to cancel the com2022-01-24 10:28:04    INFO    Environment update completed successfully
.
 -- Events -- (safe to Ctrl+C) Use "eb abort" to cancel the com
```

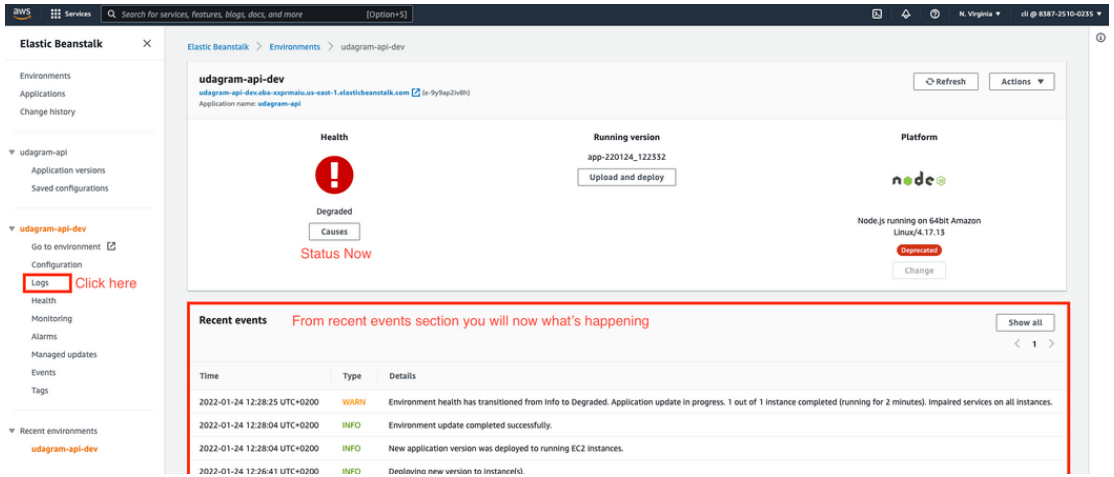
5. Open

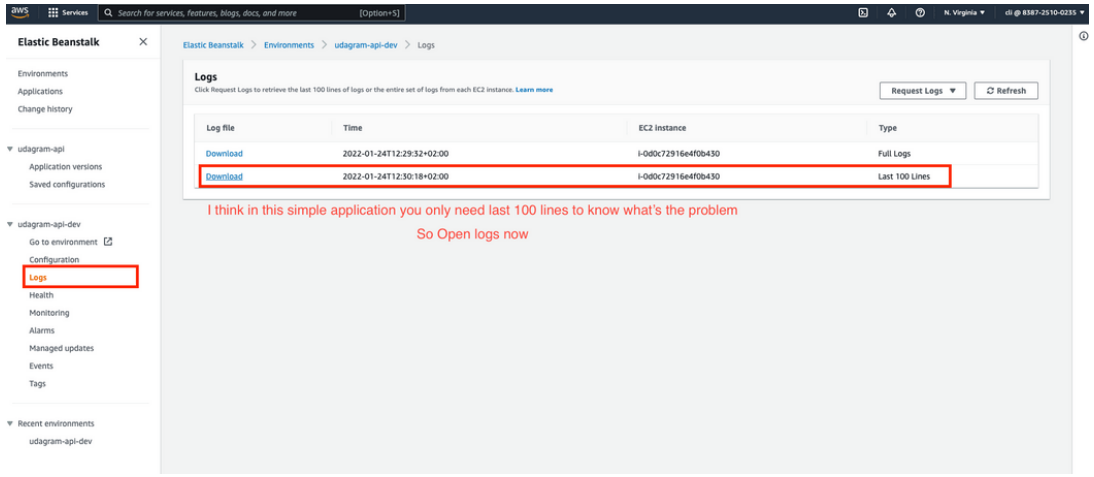
```
Desktop/udagram-deploy/server  main  ×5 ×1  v1.0.0 using ● v16.13.2 took 4m35s
❯ eb open
```



Create Elastic Beanstalk Server

* Check Errors:



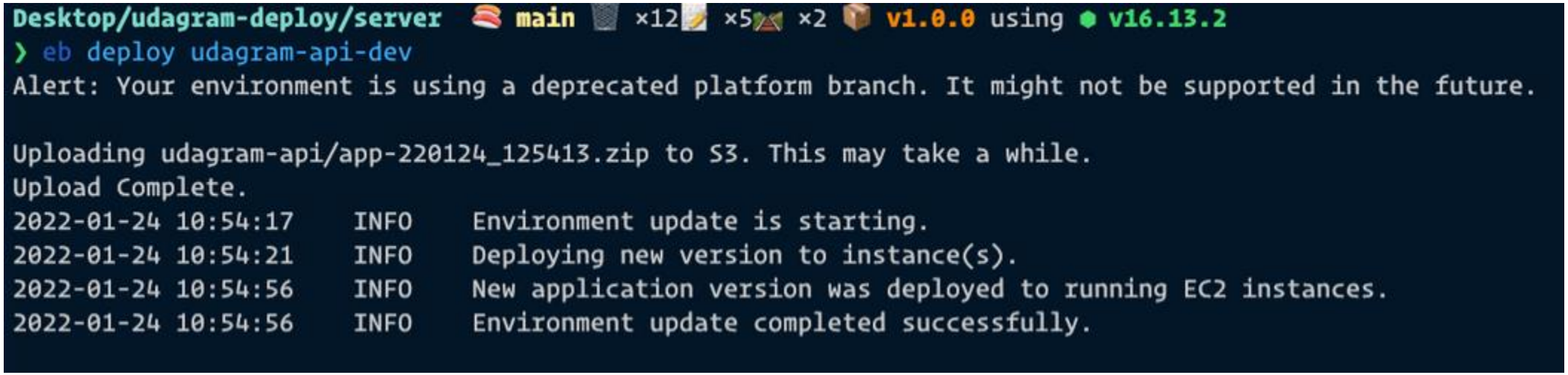


* Set Environment Variables:

```
Desktop/udagram-deploy/server  main  ×5 ×1  v1.0.0 using  v16.13.2 took 3s
❯ eb setenv PORT=3000
2022-01-24 10:31:55    INFO    Environment update is starting.
2022-01-24 10:32:05    INFO    Updating environment udagram-api-dev's configuration settings.
2022-01-24 10:33:18    INFO    Successfully deployed new configuration to environment.
```

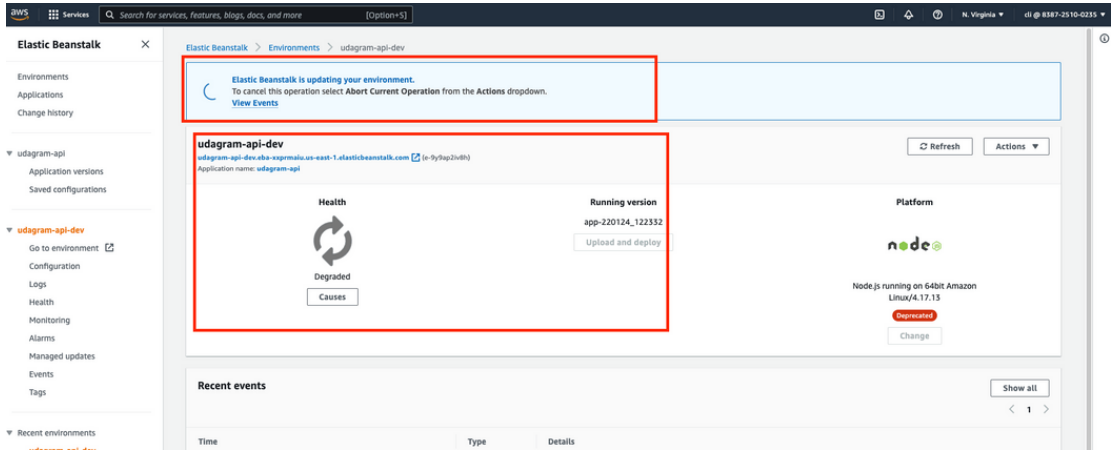
Create Elastic Beanstalk Server

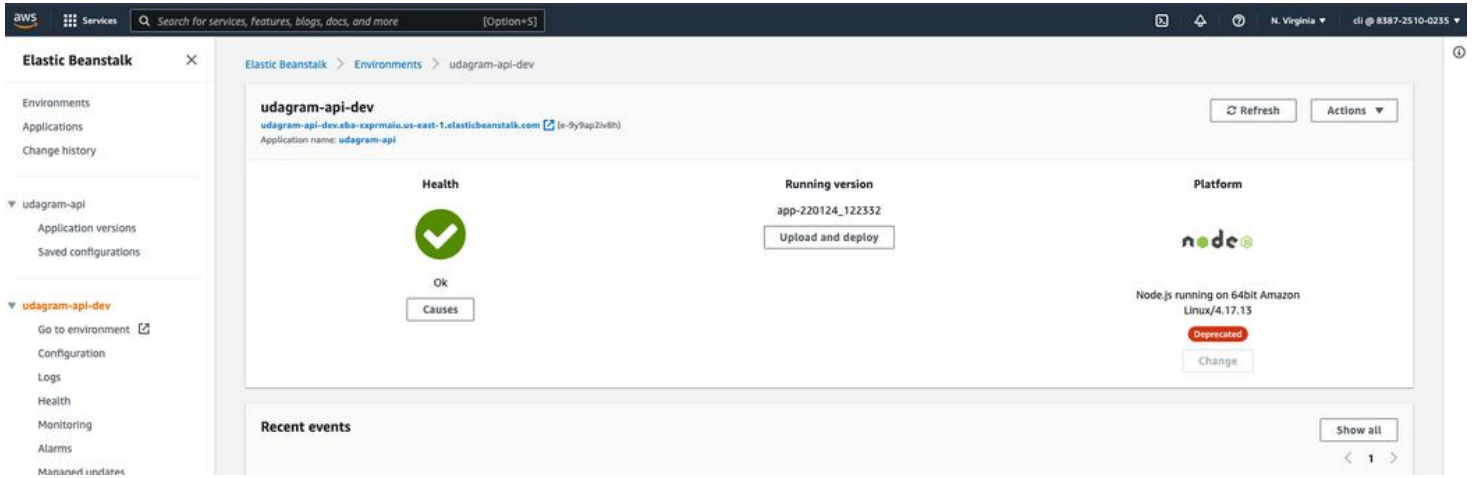
* Then Build Again & Deploy Again:



Create Elastic Beanstalk Server

* Refresh The Environment Automatically After Upload:

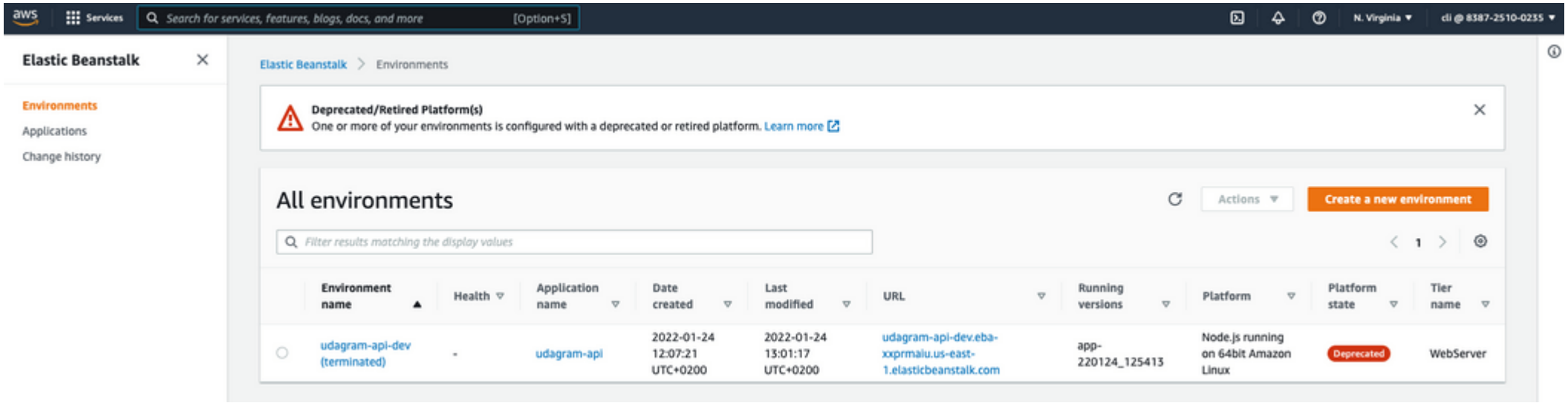




Create Elastic Beanstalk Server

* If You are Done >> Terminate Environment:

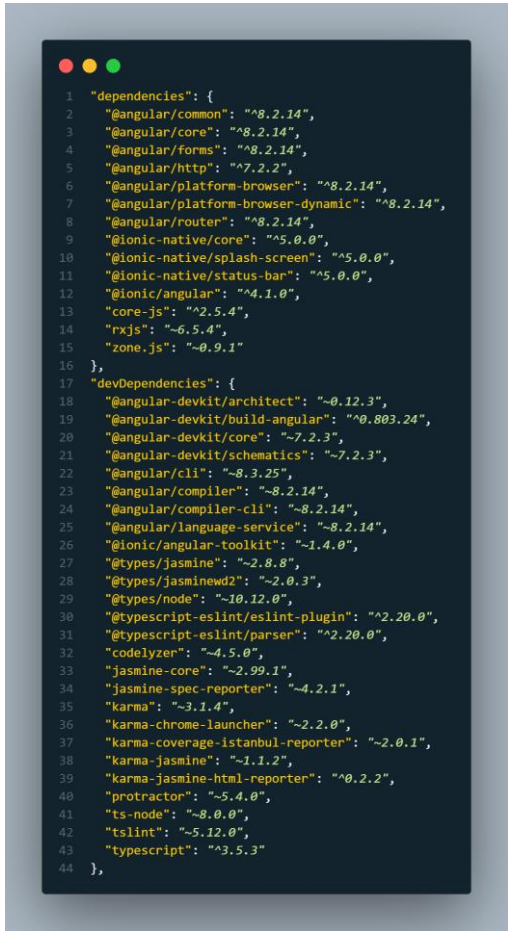
```
Desktop/udagram-deploy/server  main  ×12 ×5 ×2  v1.0.0 using  v16.13.2 took 2s
❯ eb terminate
The environment "udagram-api-dev" and all associated instances will be terminated.
To confirm, type the environment name: udagram-api-dev
2022-01-24 10:56:06    INFO    terminateEnvironment is starting.
2022-01-24 10:56:24    INFO    Deleted CloudWatch alarm named: awseb-e-9y9ap2iv8h-stack-AWSEBCloudwatchAlarmLow-1QD14M2CAAI5Z
2022-01-24 10:56:24    INFO    Deleted CloudWatch alarm named: awseb-e-9y9ap2iv8h-stack-AWSEBCloudwatchAlarmHigh-8OEW37BN3LQP
2022-01-24 10:56:24    INFO    Deleted Auto Scaling group policy named: arn:aws:autoscaling:us-east-1:838725100235:scalingPolicy:0cb3b4
ad-9bc3-4f4e-8f25-342ae0e40074:autoScalingGroupName/awseb-e-9y9ap2iv8h-stack-AWSEBAutoScalingGroup-1P1LK9N0473XA:policyName/awseb-e-9y9
ap2iv8h-stack-AWSEBAutoScalingScaleUpPolicy-3EQNF5YJ14JB
2022-01-24 10:56:24    INFO    Deleted Auto Scaling group policy named: arn:aws:autoscaling:us-east-1:838725100235:scalingPolicy:ff9920
ed-e92b-4fa9-a6fc-d3cea2e17f98:autoScalingGroupName/awseb-e-9y9ap2iv8h-stack-AWSEBAutoScalingGroup-1P1LK9N0473XA:policyName/awseb-e-9y9
ap2iv8h-stack-AWSEBAutoScalingScaleDownPolicy-NM46EJRROOOQ
2022-01-24 10:56:24    INFO    Waiting for EC2 instances to terminate. This may take a few minutes.
2022-01-24 11:00:28    INFO    Deleted Auto Scaling group named: awseb-e-9y9ap2iv8h-stack-AWSEBAutoScalingGroup-1P1LK9N0473XA
2022-01-24 11:00:29    INFO    Deleted load balancer named: awseb-e-9-AWSEBLoa-1OCWGD0VYS9EB
2022-01-24 11:00:44    INFO    Deleted Auto Scaling launch configuration named: awseb-e-9y9ap2iv8h-stack-AWSEBAutoScalingLaunchConfigur
ation-5Q6WV5BFWP08
2022-01-24 11:00:44    INFO    Deleted security group named: awseb-e-9y9ap2iv8h-stack-AWSEBSecurityGroup-GJP0B4J1LTT0
2022-01-24 11:01:15    INFO    Deleted security group named: sg-0fdbe234651e13168
2022-01-24 11:01:16    INFO    Deleting SNS topic for environment udagram-api-dev.
2022-01-24 11:01:18    INFO    terminateEnvironment completed successfully.
```



APP DEPENDENCIES

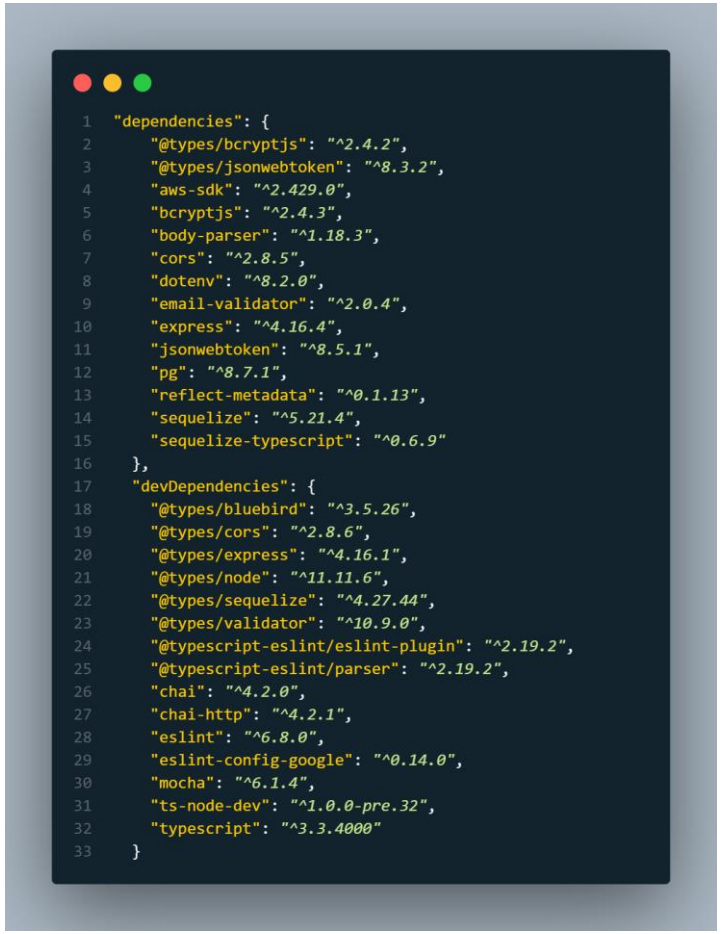
APP DEPENDENCIES

* Front End



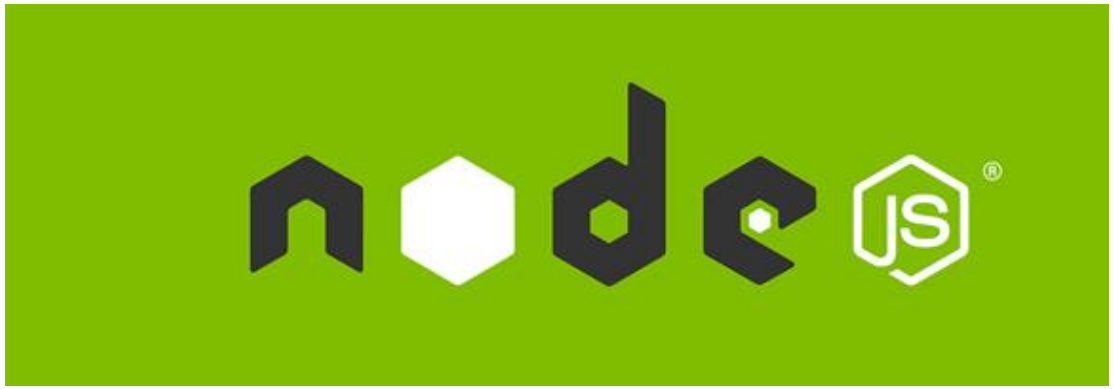
```
"dependencies": {
  "@angular/common": "^8.2.14",
  "@angular/core": "^8.2.14",
  "@angular/forms": "^8.2.14",
  "@angular/http": "^7.2.2",
  "@angular/platform-browser": "^8.2.14",
  "@angular/platform-browser-dynamic": "^8.2.14",
  "@angular/router": "^8.2.14",
  "@ionic-native/core": "^5.0.0",
  "@ionic-native/splash-screen": "^5.0.0",
  "@ionic-native/status-bar": "^5.0.0",
  "@ionic/angular": "^4.1.0",
  "core-js": "^2.5.4",
  "rxjs": "~6.5.4",
  "zone.js": "~0.9.1"
},
"devDependencies": {
  "@angular-devkit/architect": "~0.12.3",
  "@angular-devkit/build-angular": "^0.803.24",
  "@angular-devkit/core": "~7.2.3",
  "@angular-devkit/schematics": "~7.2.3",
  "@angular/cli": "~8.3.25",
  "@angular/compiler": "~8.2.14",
  "@angular/compiler-cli": "~8.2.14",
  "@angular/language-service": "~8.2.14",
  "@ionic/angular-toolkit": "~1.4.0",
  "@types/jasmine": "~2.8.8",
  "@types/jasminewd2": "~2.0.3",
  "@types/node": "~10.12.0",
  "@typescript-eslint/eslint-plugin": "^2.20.0",
  "@typescript-eslint/parser": "^2.20.0",
  "codelyzer": "~4.5.0",
  "jasmine-core": "~2.99.1",
  "jasmine-spec-reporter": "~4.2.1",
  "karma": "~3.1.4",
  "karma-chrome-launcher": "~2.2.0",
  "karma-coverage-istanbul-reporter": "~2.0.1",
  "karma-jasmine": "~1.1.2",
  "karma-jasmine-html-reporter": "^0.2.2",
  "protractor": "~5.4.0",
  "ts-node": "~8.0.0",
  "tslint": "~5.12.0",
  "typescript": "^3.5.3"
},
```

* Back End



```
"dependencies": {
    "@types/bcryptjs": "^2.4.2",
    "@types/jsonwebtoken": "^8.3.2",
    "aws-sdk": "^2.429.0",
    "bcryptjs": "^2.4.3",
    "body-parser": "^1.18.3",
    "cors": "^2.8.5",
    "dotenv": "^8.2.0",
    "email-validator": "^2.0.4",
    "express": "^4.16.4",
    "jsonwebtoken": "^8.5.1",
    "pg": "^8.7.1",
    "reflect-metadata": "^0.1.13",
    "sequelize": "^5.21.4",
    "sequelize-typescript": "^0.6.9"
  },
  "devDependencies": {
    "@types/bluebird": "^3.5.26",
    "@types/cors": "^2.8.6",
    "@types/express": "^4.16.1",
    "@types/node": "^11.11.6",
    "@types/sequelize": "^4.27.44",
    "@types/validator": "^10.9.0",
    "@typescript-eslint/eslint-plugin": "^2.19.2",
    "@typescript-eslint/parser": "^2.19.2",
    "chai": "^4.2.0",
    "chai-http": "^4.2.1",
    "eslint": "^6.8.0",
    "eslint-config-google": "^0.14.0",
    "mocha": "^6.1.4",
    "ts-node-dev": "^1.0.0-pre.32",
    "typescript": "^3.3.4000"
  }
```

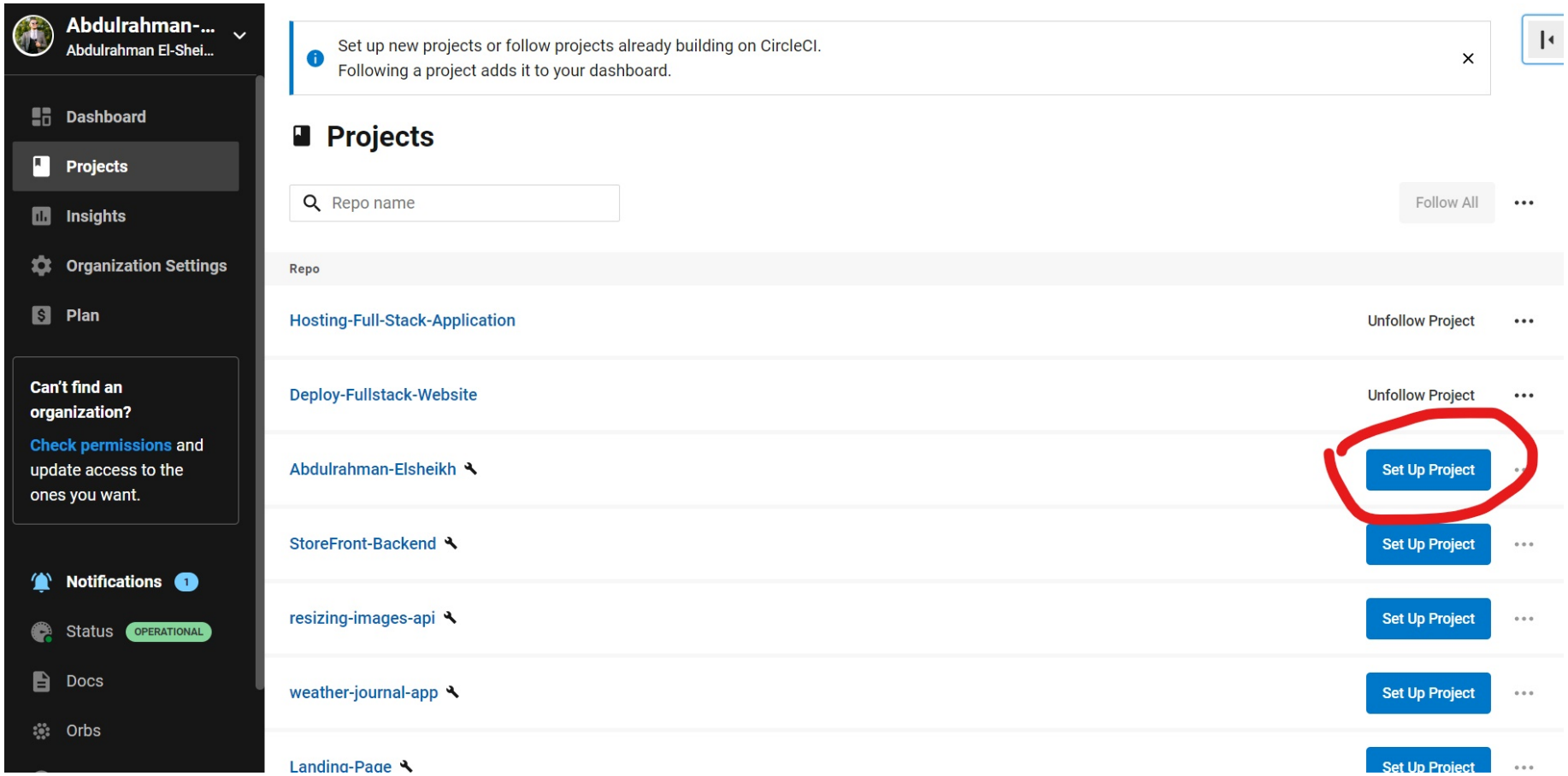
APP DEPENDENCIES



PIPELINE PROCESS

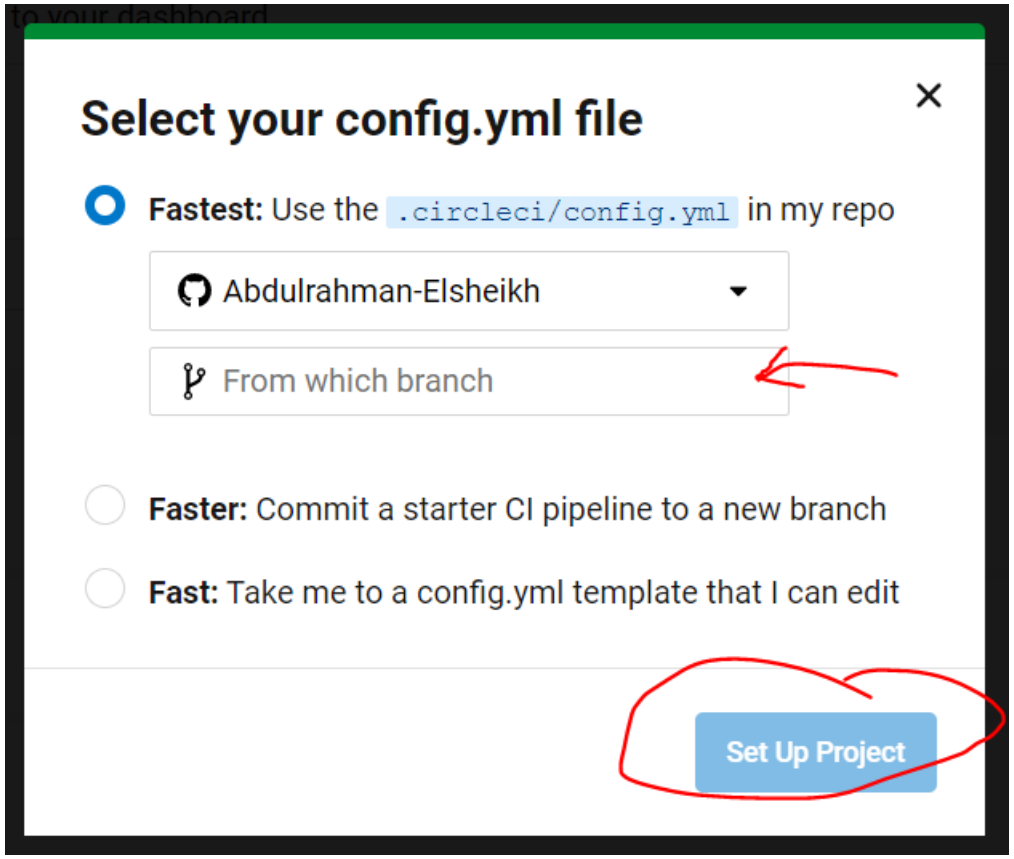
PIPELINE PROCESS

* Create Account on Circle CI and Connect it with your GitHub Account:



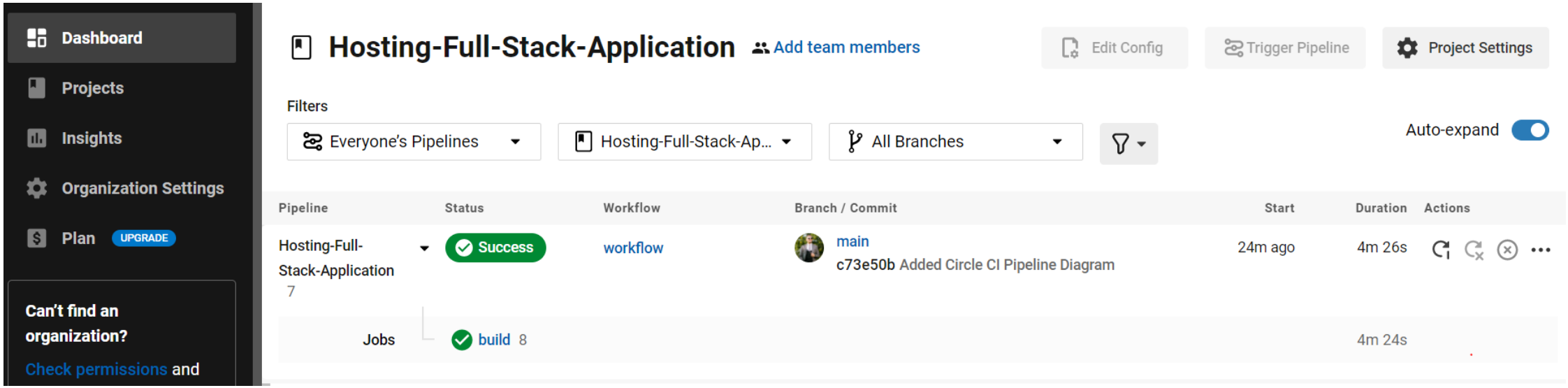
PIPELINE PROCESS

* Specify The Config.yml File From Which Branch:



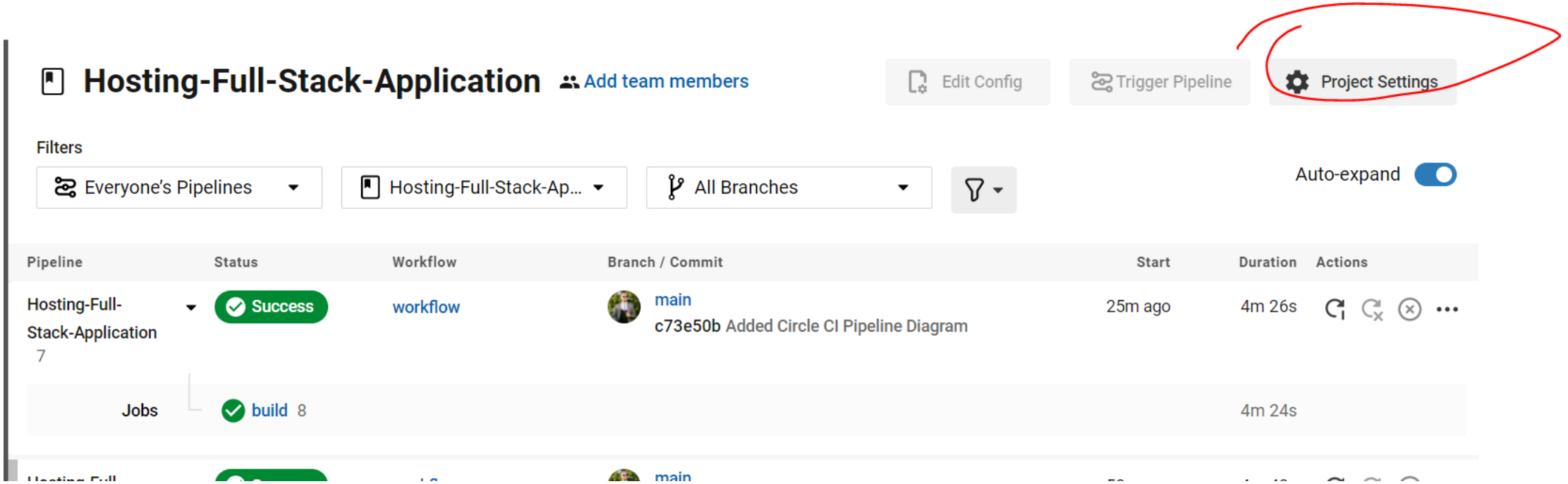
PIPELINE PROCESS

* Project Dashboard:



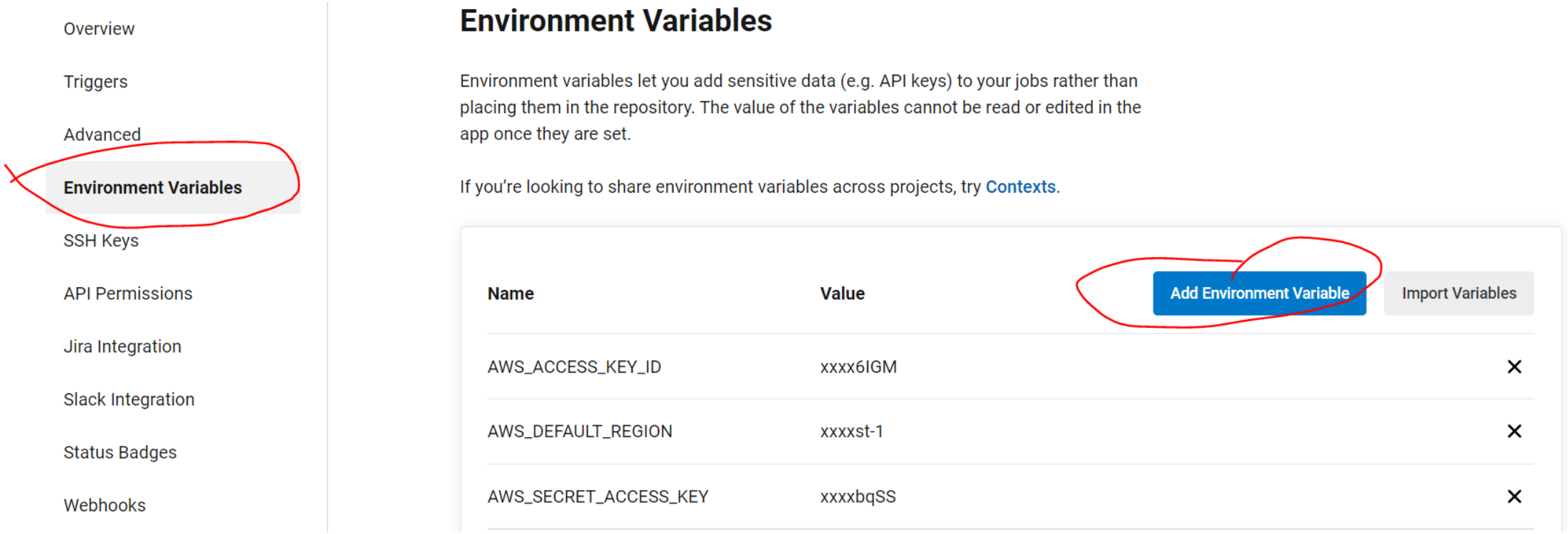
PIPELINE PROCESS

* Setup Environment Variables:



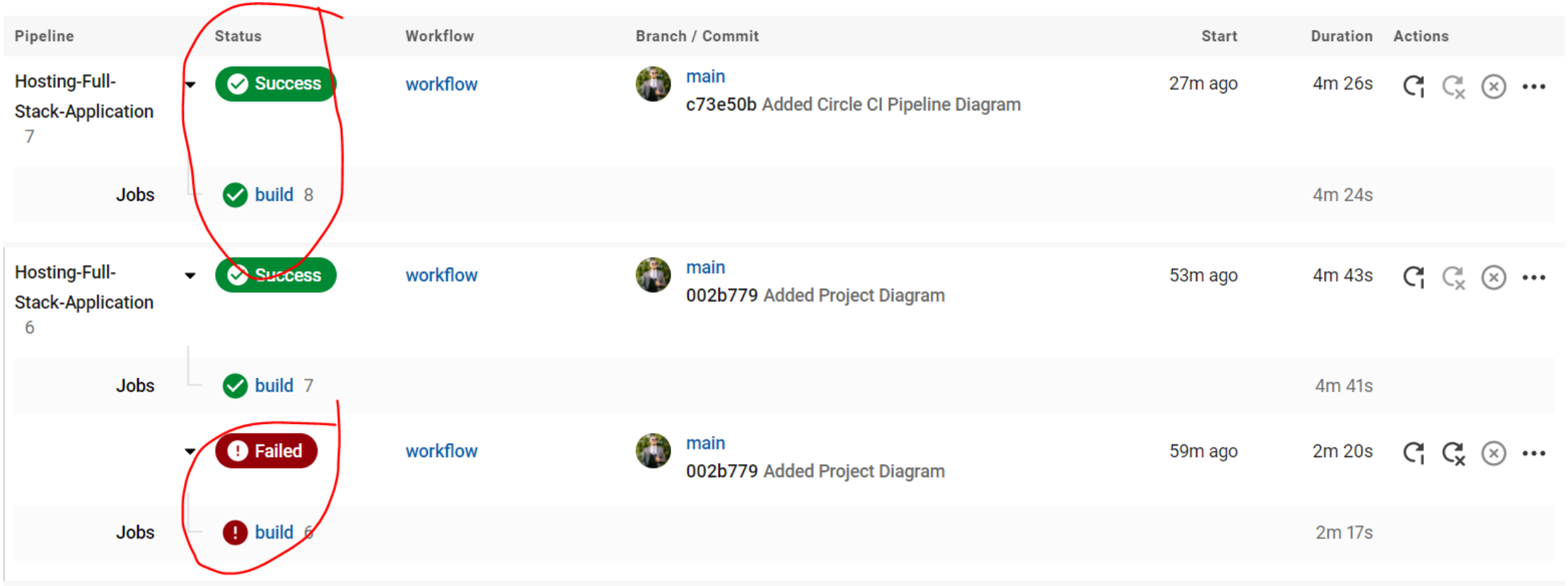
PIPELINE PROCESS

* Setup Environment Variables:



PIPELINE PROCESS

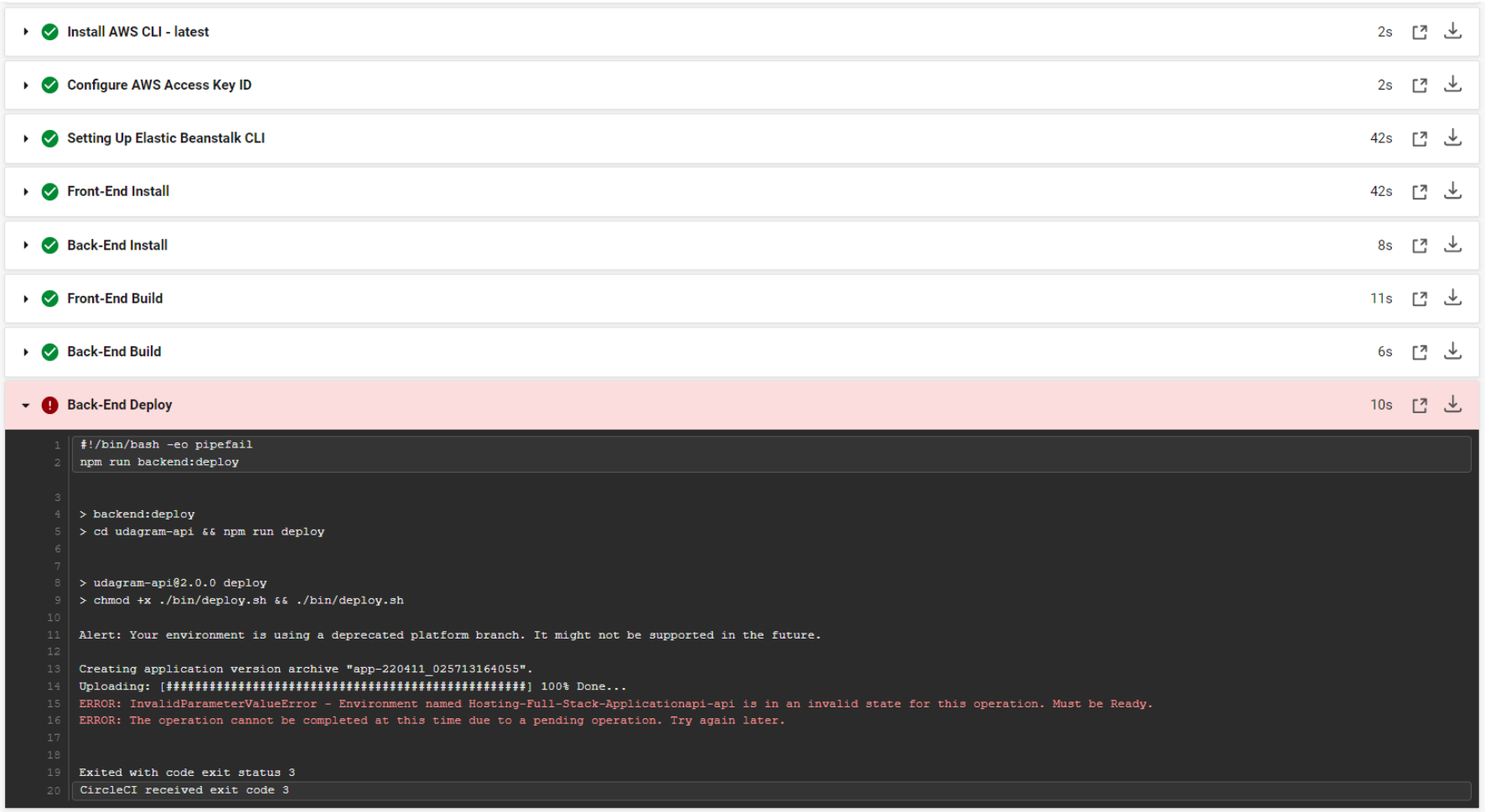
* Deployment Process Status:



Pipeline	Status	Workflow	Branch / Commit	Start	Duration	Actions
Hosting-Full-Stack-Application 7	Success	workflow	main c73e50b Added Circle CI Pipeline Diagram	27m ago	4m 26s	
Jobs	build 8				4m 24s	
Hosting-Full-Stack-Application 6	Success	workflow	main 002b779 Added Project Diagram	53m ago	4m 43s	
Jobs	build 7				4m 41s	
	Failed	workflow	main 002b779 Added Project Diagram	59m ago	2m 20s	
Jobs	build 6				2m 17s	

PIPELINE PROCESS

* Error in Deployment Process:



PIPELINE PROCESS

* Deployment Process Succeed: