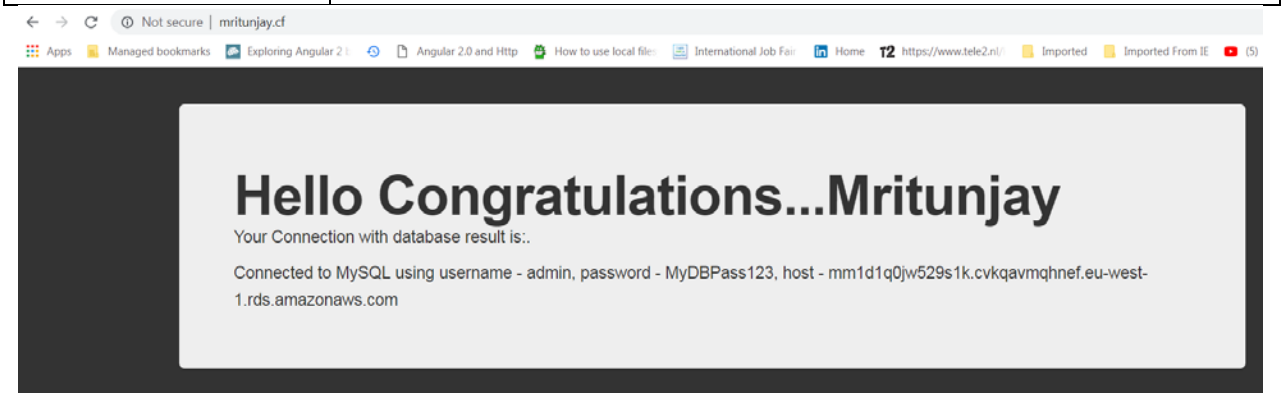
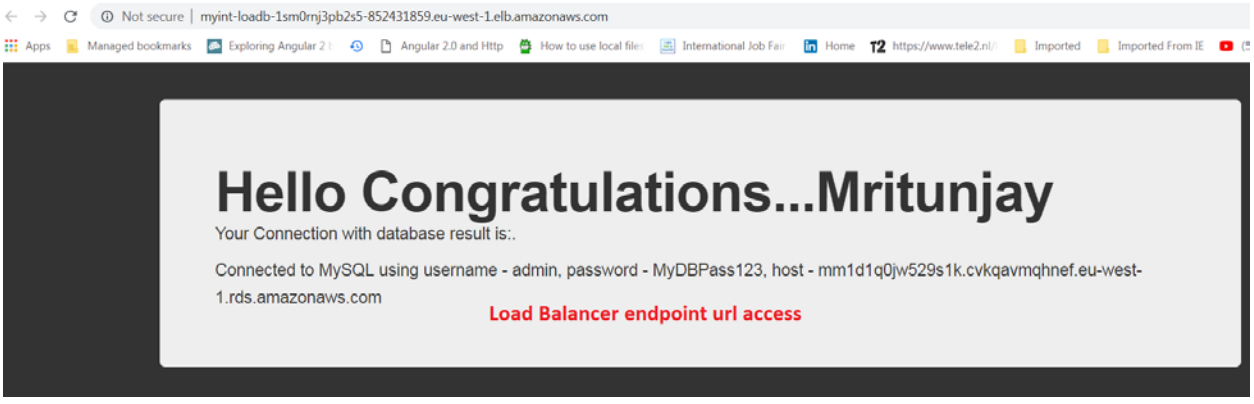
Assignment Overview.

Create a CloudFormation template that deploys a stack to host a secure and resilient intranet website that fetches data from a database. Provide the template that inflates this stack. The template should also output a link that we can click to see that all is working.

Assignment Result

Endpoint	URL
Route 53 Endpoint	http://mritunjay.cf/
Load Balancer Endpoint	http://testi-loadb-1uusjvkismjx3-906311711.eu-west-1.elb.amazonaws.com/





Application code is divided into 2 parts.

1. Application source code.
2. Cloud formation template for Amazon web services (AWS)

1. Application Source Code:

Source code of application are located on my GitHub repository.

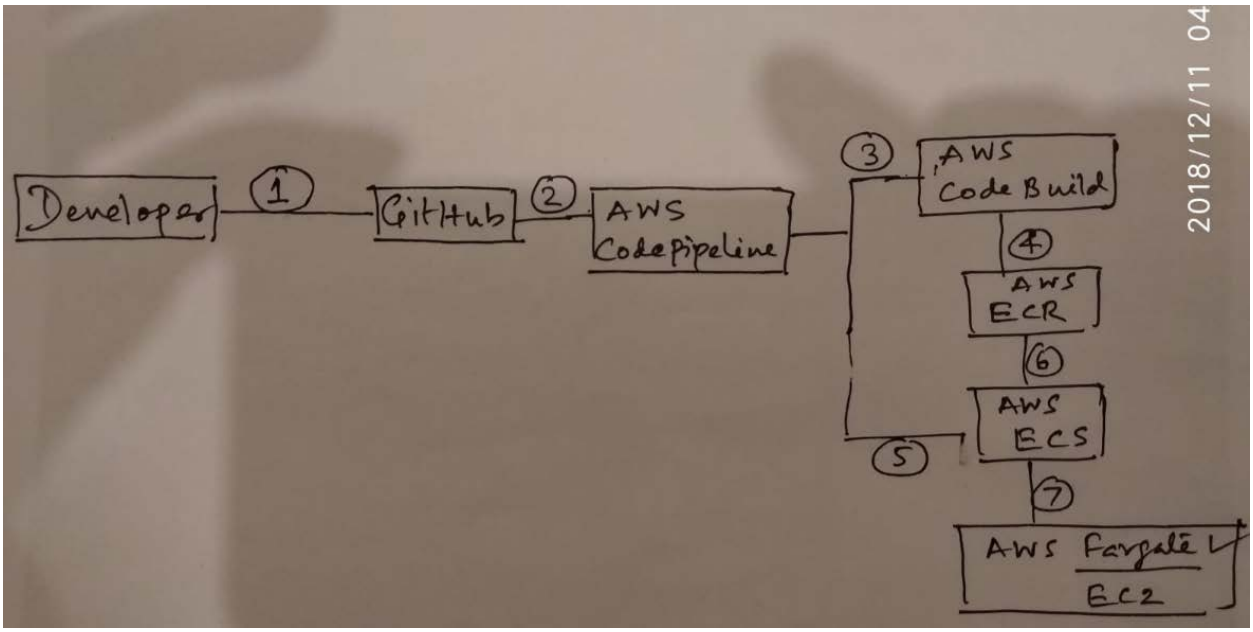
Url: https://github.com/mritunjayemail/code-base-github-interview

Git RepositoryURL for clone :https://github.com/mritunjayemail/code-base-github-interview.git

2. Cloud formation template for Amazon web services (AWS)

Url: https://github.com/mritunjayemail/CloudFormation-templates-continuous-deployment
Git Repo: https://github.com/mritunjayemail/CloudFormation-templates-continuous-deployment.git

Overview:



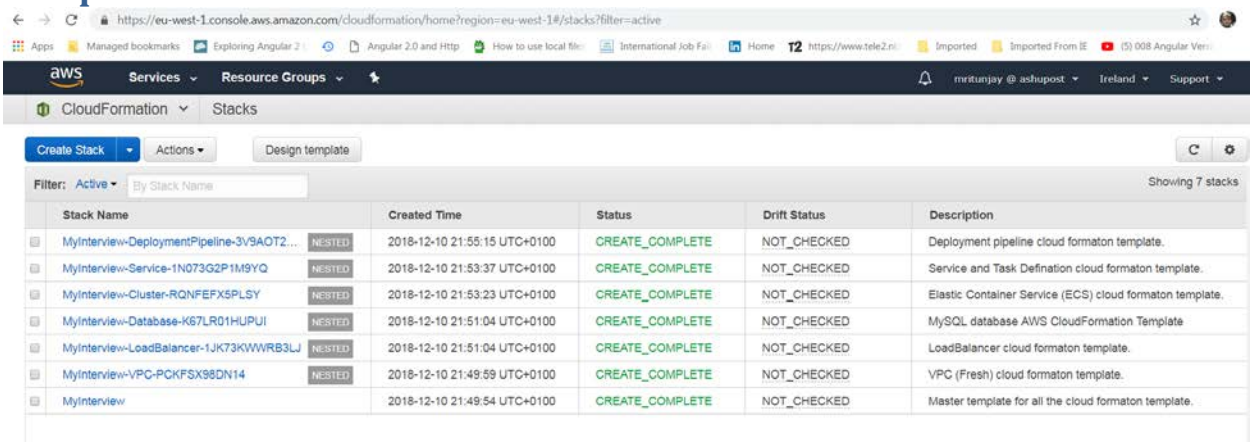
- Developer continuously integrate their changes into main branch hosted within main source code repository system such as GitHub.
- AWS code pipeline continuously polls the source code repository and trigger an execution of the pipeline when the new revision is found.
- AWS code pipeline executes a build of the new revision in AWS code build which create a docker container image from the source code.
- AWS code build pushes a newly build Docker container image tagged with the revision id to an ECR repository.
- AWS code pipeline an initiate an update of the Amazon ECS stack definition and service with the new image location.
- AWS ECS fetches the new container from Amazon ECR and replicate the old task with a new one on the cluster.
- The new revision of the service now running on the cluster using the specific launch type Fargate

Load balancer Cloud formation stack gives us output of load balancer Service URL.

▾ Outputs

Key	Value	Description
TargetGroup	arn:aws:elasticloadbalancing:eu-west-1:418185438171:targetgroup/MyInt-Targe-1OHWYDHBI6YIO/daa9a78f88bdeb61	
ServiceUrl	http://MyInt-LoadB-1SM0RNJ3PB2S5-852431859.eu-west-1.elb.amazonaws.com	URL of the load balancer for the sample service.
SecurityGroup	sg-0d812465eaeb82f73	

Complete stack overview on AWS console:



AWS CodePipeline is a fully managed continuous delivery service. CodePipeline automates the build, test, and deploy phases of your release process every time there is a code change.

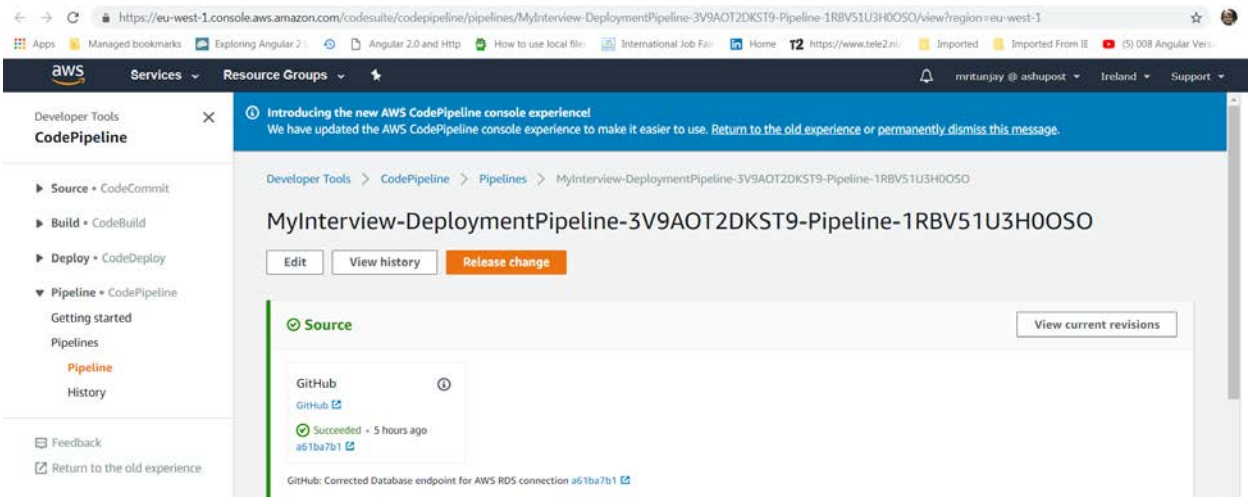
GitHub Configuration

Repo: The repo name of the sample service.

Branch: The branch of the repo to deploy continuously.

User: Your username on GitHub.

Personal Access Token: Token for the access of github.


https://eu-west-1.console.aws.amazon.com/codesuite/codepipeline/pipelines/MyInterview-DeploymentPipeline-3V9AOT2DKST9-Pipeline-1RBV51U3H0OSO/view?region=eu-west-1
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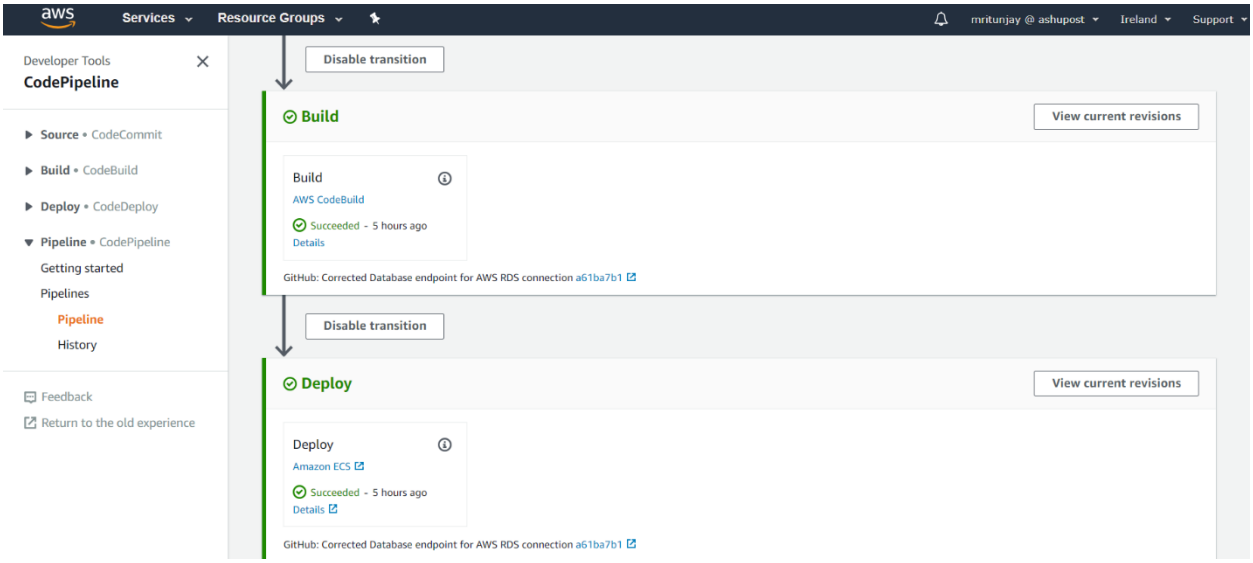
Support
Developer Tools
CodePipeline
Source • CodeCommit
Build • CodeBuild
Deploy • CodeDeploy
Pipeline • CodePipeline
Getting started
Pipelines
Pipeline
History
Feedback
Return to the old experience
Introducing the new AWS CodePipeline console experience!
We have updated the AWS CodePipeline console experience to make it easier to use. Return to the old experience or permanently dismiss this message.
Developer Tools > CodePipeline > Pipelines > MyInterview-DeploymentPipeline-3V9AOT2DKST9-Pipeline-1RBV51U3H0OSO
MyInterview-DeploymentPipeline-3V9AOT2DKST9-Pipeline-1RBV51U3H0OSO
Edit
View history
Release change
Source
View current revisions
GitHub
GitHub
Succeeded - 5 hours ago
a61ba7b1
GitHub: Corrected Database endpoint for AWS RDS connection a61ba7b1


aws
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Resource Groups
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Build • CodeBuild
Deploy • CodeDeploy
Pipeline • CodePipeline
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Pipelines
Pipeline
History
Feedback
Return to the old experience
Disable transition
Build
View current revisions
Build
AWS CodeBuild
Succeeded - 5 hours ago
Details
GitHub: Corrected Database endpoint for AWS RDS connection a61ba7b1
Disable transition
Deploy
View current revisions
Deploy
Amazon ECS
Succeeded - 5 hours ago
Details
GitHub: Corrected Database endpoint for AWS RDS connection a61ba7b1