**AWS Code Pipeline**

**Assignment -1**

Sample CI/CD pipeline using AWS CodePipeline

Created a sample AWS CI/CD pipeline with a demo ReactJS application. It automates the basic phases of continuous integration and delivery/deployment.

I have used below AWS services.

* Pipeline services: CodePipeline, CodeBuild, CodeDeploy
* Compute platform: Elastic Compute Cloud or EC2
* Storage service: S3
* Event/Log/Alert: CloudWatch
* Notification: SNS
* For the code repository, I have used GitHub. Though I explored AWS’s Code Commit (AWSs own private version control service)

**Assignment - 2**

Create an AWS CodePipeline to deploy a web application.

Step 1: Create buildspec.yml file

* Before everything we must create a [YAML](https://www.tutorialspoint.com/yaml/yaml_basics.htm) file in the project’s root directory. Name it as buildspec.yml.

version: 0.1

phases:

install:

commands:

- echo installing nodejs

- curl -sL https://deb.nodesource.com/setup\_12.x | bash -

- apt-get install -y nodejs

- echo installing yarn

- curl -sS https://d1.yarnpkg.com/debian/pubkey.gpg | apt-key add -

- echo "deb https://d1.yarnpkg.com/debian/ stable main" | tee /etc/apt/sources.list.d/yarn.list

- apt install --no-install-recommends yarn

pre\_build:

commands:

- echo installing dependencies

- npm install

build:

commands:

- echo building

- npm run build

artifacts:

files:

- "\*\*/\*"

discard-paths: no

base-directory: build

Step 2: Push your code to GitHub

Step 3: Create a S3 Bucket

Step 4: Create AWS CodePipeline

Step 5: Create a source provider

Step 6: Create CodeBuild

Step 7: Create a deployment stage

Step 8: Review

* Now you can see your pipeline and it starts automatically when we create.
* After all the stages succeeded, visit the Endpoint URL we saw in Step 3. Your web application should be live now.

**Assignment -3**

* create an automated software release pipeline that deploys a live sample app.
* create the pipeline using AWS CodePipeline
* Use AWS Elastic Beanstalk as the deployment target for the sample app.

Step 1: Create a deployment environment.

Step 2: Get a copy of the sample code.

* Visit our GitHub repository containing the sample code at https://github.com/Shivarajunayak/aws-samples-aws-codepipeline-s3-codedeploy.git
* Fork a copy of the repository to your own GitHub account by choosing the Fork button in the upper-right corner.

Step 3: Create your pipeline.

Step 4: Activate your pipeline to deploy your code.

Step 5: Commit a change and then update your app.

* After all the stages succeeded, visit the Endpoint URL. Your web application should be live now.

Step 6: Clean up your resources.