Jenkins Tutorial

1 . Jenkins Installation

2. Make sure your git repo has these files

Dockerfile

|  |  |
| --- | --- |
| FROM ubuntu:18.04 |  |
|  | RUN apt-get update |
|  | ARG DEBIAN\_FRONTEND=noninteractive |
|  | RUN apt-get install apache2 -y |
|  | COPY . /var/www/html |
|  | EXPOSE 80 |
|  | CMD ["apachectl", "-D", "FOREGROUND"] |

buildImage.sh

|  |  |
| --- | --- |
| #This script will build docker image |  |
|  |  |
|  | version=$BUILD\_ID |
|  | docker build -t apprepo:$version . |
|  | aws ecr get-login-password --region ap-south-1 | docker login --username AWS --password-stdin 202714190885.dkr.ecr.ap-south-1.amazonaws.com |
|  | docker tag apprepo:$version 202714190885.dkr.ecr.ap-south-1.amazonaws.com/apprepo:$version |
|  | docker push 202714190885.dkr.ecr.ap-south-1.amazonaws.com/apprepo:$version |
|  |  |
|  | echo "Image Successfully pushed to ecr" |
|  |  |
|  | #Create new task definition with new version of buildnumber |
|  |  |
|  | sed -i s#202714190885.dkr.ecr.ap-south-1.amazonaws.com/apprepo:20#202714190885.dkr.ecr.ap-south-1.amazonaws.com/apprepo:$version#g taskdef.json |
|  | aws ecs register-task-definition --cli-input-json file://taskdef.json --region ap-south-1 |
|  |  |
|  | echo "New task revision created" |

|  |  |
| --- | --- |
|  |  |
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|  |  |
|  |  |
|  |  |
|  |  |

2. Jenkins pipeline reference

pipeline {

agent any

stages {

stage('clone') {

steps {

echo 'This is to download from git'

git url:'https://github.com/ramana236/application1.git',

branch: 'dev1',

credentialsId : 'githubcredentials'

}

}

stage('Build') {

steps {

echo 'This is to build and push an image to ecr'

sh 'chmod 777 buildImage.sh'

sh './buildImage.sh'

}

}

stage('deploy') {

steps {

echo 'Update and service'

sh 'aws ecs update-service --cluster apprepo-cluster --service app-service --task-definition apprepo-taskdef --region ap-south-1'

echo 'Service updated'

}

}

}

}

3. Add permission for jenkins to access docker

sudo usermod -a -G docker jenkins

service jenkins restart

4. Build your pipeline with parameters

5. Ref for task def

|  |  |
| --- | --- |
| { |  |
|  | "containerDefinitions": [ |
|  | { |
|  | "name": "apprepo-container", |
|  | "image": "202714190885.dkr.ecr.ap-south-1.amazonaws.com/apprepo:20", |
|  | "cpu": 0, |
|  | "portMappings": [ |
|  | { |
|  | "containerPort": 80, |
|  | "hostPort": 80, |
|  | "protocol": "tcp" |
|  | } |
|  | ], |
|  | "essential": true, |
|  | "environment": [], |
|  | "mountPoints": [], |
|  | "volumesFrom": [], |
|  | "logConfiguration": { |
|  | "logDriver": "awslogs", |
|  | "options": { |
|  | "awslogs-group": "/ecs/apprepo-taskdef", |
|  | "awslogs-region": "ap-south-1", |
|  | "awslogs-stream-prefix": "ecs" |
|  | } |
|  | } |
|  | } |
|  | ], |
|  | "family": "apprepo-taskdef", |
|  | "executionRoleArn": "arn:aws:iam::202714190885:role/ecsTaskExecutionRole", |
|  | "networkMode": "awsvpc", |
|  | "volumes": [], |
|  | "placementConstraints": [], |
|  | "cpu": "512", |
|  | "memory": "1024" |
|  | } |

Commands to get taskdef :

aws ecs describe-task-definition --task-definition apprepo-taskdef --region ap-south-1 --profile assignment

To write to a file

aws ecs describe-task-definition --task-definition apprepo-taskdef --region ap-south-1 --profile assignment > taskdef.json