Sachin Singh
Lucknow, Uttar Pradesh
07458075685

Cloud Engineering Challenge - 1

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OVERVIEW

The project is to create a CI/CD solution for deploying an image to AWS which is already shared. create infrastructure for your entire solution.

GOALS

1. Create a CI/CD pipeline for deploying an image to AWS.

SPECIFICATIONS

The whole project is done in the following steps.

1. The first step is to launch an Ubuntu machine and connect it via Putty.
2. The first step is to download the dependencies of the project such as Docker and Jenkins, before installing jenkins we need to install java. Without java, jenkins never run.
3. Next step is to connect docker to the DockerHub through which we can pull the image from DockerHub to our instance.
4. After successfully install docker and jenkins, we go to the jenkins dashboard and then install jenkins plugins to communicate with docker.
5. After completing all the setup, next step is to create a node on jenkins that point out the remote directory of the Docker.
6. And now we have to create a job that goes to the Docker and pull the image from DockerHub. After successfully pulling the image jenkins create and run the container of that image.

MILESTONES

Install Docker & Jenkins on AWS instance

To install Docker and Jenkins on the AWS instance, command is :

- sudo apt-get install docker
- sudo apt-get install jenkins

We can check it is successfully installled or not by using these commands -

- docker --version
- jenkins --version

Create a CI/CD pipeline

Now we have to create a CI/CD pipeline that goes to the Docker, pull the image from DockerHub then create and run the container. These are the following commands -

Command to pull the image from DockerHub :

- sudo docker pull brentley/ecsdemo-nodejs

Command to run a container from the above image :

- sudo docker run -d --name web1 brentley/ecsdemo-nodejs /bin/bash/

These are the above commands to automate the whole process of deploying shared image on AWS instance.

The project is complete

Thank you