**Step 1: Launch an EC2 Instance**

* Log in to AWS Management Console: Go to the AWS Management Console and log in.
* Launch an Instance: Navigate to the EC2 Dashboard and click on "Launch Instance."
* Choose AMI: Select an Amazon Machine Image (AMI). For Jenkins, an Ubuntu Server 24.04 LTS AMI is recommended.
* Choose Instance Type: Select an instance type. t2.micro is suitable for testing.
* Configure Instance: Click "Next" and configure your instance. You can leave the defaults for testing purposes.
* Add Storage: Click "Next" to add storage. The default is usually sufficient.
* Add Tags: Click "Next" to add tags if needed.
* Configure Security Group: Add a rule to allow HTTP (port 80) and custom TCP rule for Jenkins (port 8080). Also, allow SSH (port 22) to connect to the instance.
* Review and Launch: Click "Review and Launch." Select or create a key pair to connect to your instance, then launch it.

**Step 2: Connect to Your Instance**

* **SSH into Instance**: Use your key pair to SSH into your EC2 instance

ssh -i "your-key.pem" [ubuntu@ec2-52-91-134-206.compute-1.amazonaws.com](mailto:ubuntu@ec2-52-91-134-206.compute-1.amazonaws.com)

**Step 3: Install Jenkins**

Create shell script with name Jenkins.sh

#!/bin/bash

sudo apt update -y

sudo apt install -y gnupg software-properties-common

wget -q -O - https://pkg.jenkins.io/debian/jenkins.io-2023.key | sudo apt-key add -

sudo sh -c 'echo deb https://pkg.jenkins.io/debian-stable binary/ > /etc/apt/sources.list.d/jenkins.list'

sudo apt update -y

sudo apt install -y openjdk-17-jdk jenkins

sudo apt install python3-pip

sudo systemctl enable jenkins

sudo systemctl start jenkins

Execute Jenkins.sh shell script to install Jenkins

**Step 4: Access Jenkins**

* Get Initial Admin Password: Retrieve the initial admin password to unlock Jenkins.

sudo cat /var/lib/jenkins/secrets/initialAdminPassword

* Open Jenkins in Browser: Open your browser and navigate to http://your-ec2-public-ip:8080. Enter the initial admin password when prompted.

**Step 5: Complete Jenkins Setup**

* Install Suggested Plugins: After logging in, Jenkins will ask you to install plugins. Choose "Install suggested plugins."
* Create Admin User: Create your first admin user.
* Configure Jenkins URL: Set the Jenkins URL to your EC2 instance public IP or domain.

Screenshots:

