**Jenkins Task-2**

**Task Description:**

Create a simple script file and push it to repo. Create a project in Jenkins connected to your GitHub repository. When a commit is made to your repo, automatically build must get triggered from Jenkins and the output must be shared to me via email.

Step 1: Setup a ubuntu EC2 in instance in AWS

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* 1. login into the EC2 using ssh method in vscode.

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* 1. for the installation on Jenkins it required java openjdk

**sudo apt install openjdk-17-jdk -y**

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**1.3 Add Jenkins Repository & Install Jenkins**

**-> Add the repository key:**

curl -fsSL https://pkg.jenkins.io/debian/jenkins.io-2023.key | sudo tee \

/usr/share/keyrings/jenkins-keyring.asc > /dev/null

**-> Add the Jenkins repository:**

echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \

https://pkg.jenkins.io/debian binary/" | sudo tee \

/etc/apt/sources.list.d/jenkins.list > /dev/null

**-> Update packages and install Jenkins:**

sudo apt update

sudo apt install -y jenkins

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**1.4: Start and Enable Jenkins**

**sudo systemctl start jenkins**

**sudo systemctl enable Jenkins**

**Check status:**

sudo systemctl status Jenkins

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**1.5: Setup Jenkins**

-> Access Jenkins in a browser

**http://<server-ip>:8080 ( Enable port 8080 In security group)**

-> Retrieve the initial admin password:

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

-> Copy and paste the password into the Jenkins setup page.

-> Follow the setup wizard, install recommended plugins, and create an admin user.

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1.6 install the suggested plugins and create the users.

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Step 2: Create a Simple Script and Push to GitHub

2.1 **Create a script file** (hello.sh as an example):

#!/bin/bash

echo "Hello from Jenkins at $(date)" > output.txt

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2.2 Initialize a Git repo and push to GitHub:

git init

git add hello.sh

git commit -m "Initial commit: Hello script"

git remote add origin https://github.com/YOUR\_USERNAME/YOUR\_REPO.git

git push -u origin master

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Step 3: Create a Jenkins project connected to github

**Install Jenkins Plugins** (if not already installed):

* Git plugin
* Email Extension Plugin
* GitHub Integration Plugin
* GitHub plugin

**Create a New Jenkins Freestyle Project**:

* Go to Jenkins → New Item → Freestyle project → Name it (e.g., GitHubAutoBuild) → OK.

**Configure Source Code Management**:

* Choose **Git**
* Repository URL: https://github.com/YOUR\_USERNAME/YOUR\_REPO.git
* Credentials: Add GitHub token if the repo is private.

**Configure Build Triggers**:

* Select **GitHub hook trigger for GITScm polling**

**Configure Build Steps**:

* Add build step → **Execute shell**:

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3.6 **Configure Email Notification**:

* Manage Jenkins → Configure System → Scroll to **Email Notification**
  + SMTP Server: (e.g., smtp.gmail.com)
  + Use SMTP authentication: yes
  + Sender Email Address: your email
  + Credentials: add app password or credentials
  + Default Recipients: your email address
* In Project Configuration → Post-build Actions:
  + Add "Editable Email Notification"
  + Configure content as needed

**Configure Extended Email Notification**:

* In the same configuration page, scroll to "Extended E-mail Notification"
* Enter similar SMTP settings
* Set default content type to HTML
* Add your email address to the default recipients list
* Save the configuration

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**3.7: GitHub Webhook for Auto-Trigger**

1. Go to **your GitHub repository** → **Settings** → **Webhooks**
   * Payload URL: http://<your-jenkins-server>/github-webhook/
   * Content Type: application/json
   * Trigger: Just the push event

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Step 4: Test the Setup

Make a new commit to your repo

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