Assignment 1

Create a simple FreeStyle Job To Install Nginx on the server

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JENKINS:

Jenkins is an open-source automation server used for Continuous Integration (CI) and Continuous Deployment (CD). It automates the process of building, testing, and deploying applications, making software development more efficient and reliable.

Key Features of Jenkins:

- **Automation** – Automates repetitive tasks such as builds, testing, and deployments.
- **Plugins** – Supports over 1,800 plugins to integrate with various tools such as Git, Docker, Kubernetes, and Ansible.
- **Pipeline Support** – Allows defining workflows using Jenkins Pipeline (Groovy-based scripting) for better flexibility.
- **Distributed Builds** – Supports execution on multiple machines to optimize build performance.
- **Easy Integration** – Works seamlessly with version control systems such as Git, GitHub.

Steps to Create a Freestyle Job to Install Nginx

Jenkins allows users to create **Freestyle Jobs**, which are basic projects that can execute scripts or commands to perform automation tasks. The following steps outline how to create a Freestyle Job in Jenkins to **install and configure Nginx** on a server.

Step 1: Open Jenkins Dashboard

- Log in to Jenkins.
- Click on **"New Item"** from the Jenkins Dashboard.

Step 2: Create a Freestyle Project

- Enter a suitable job name.
- Select **Freestyle Project**.
- Click **OK** to proceed.

Step 3: Configure the Build Steps

- Scroll down to the **Build** section.

- Click on **"Add build step"** and select **"Execute shell"**.

Step 4: Add the Shell Script for Nginx Installation

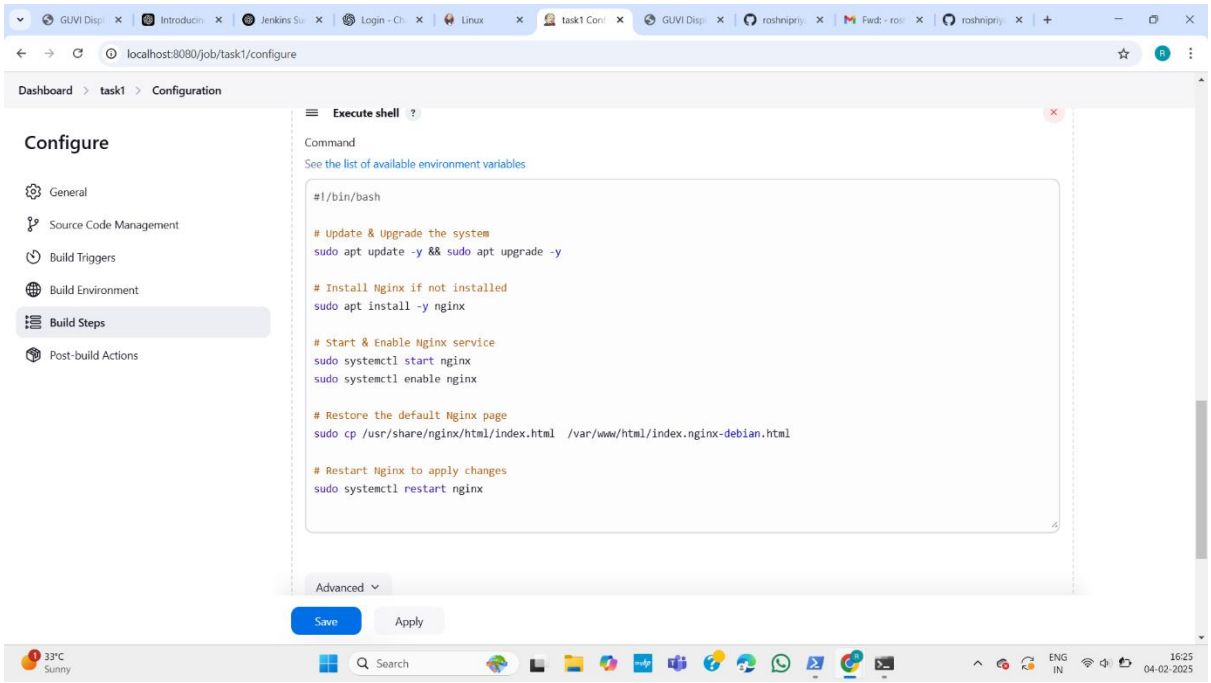
- In the script box, enter the following commands.

```
sudo apt update

sudo apt install -y nginx

sudo systemctl start nginx

sudo systemctl enable nginx
```

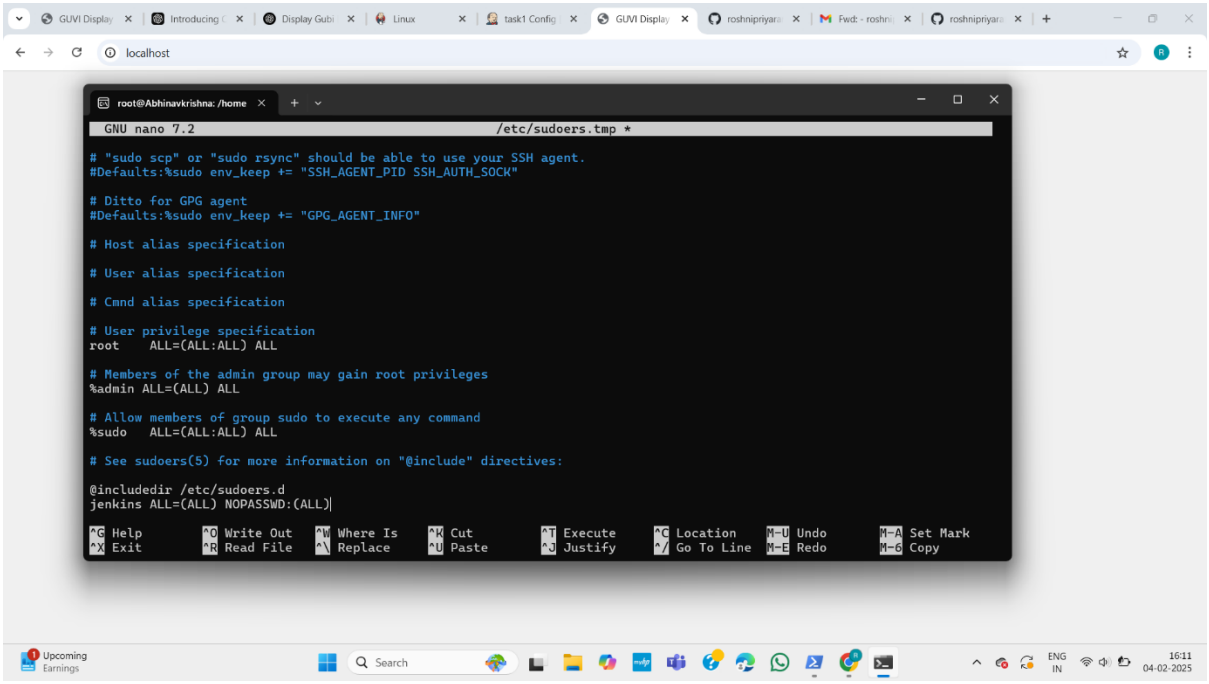
Step 5: Save and Execute the Job

- Click **Save** to store the job configuration.
- Click **"Build Now"** to start the installation process.
- Check the **Build Console Output** to verify if the job executes successfully.

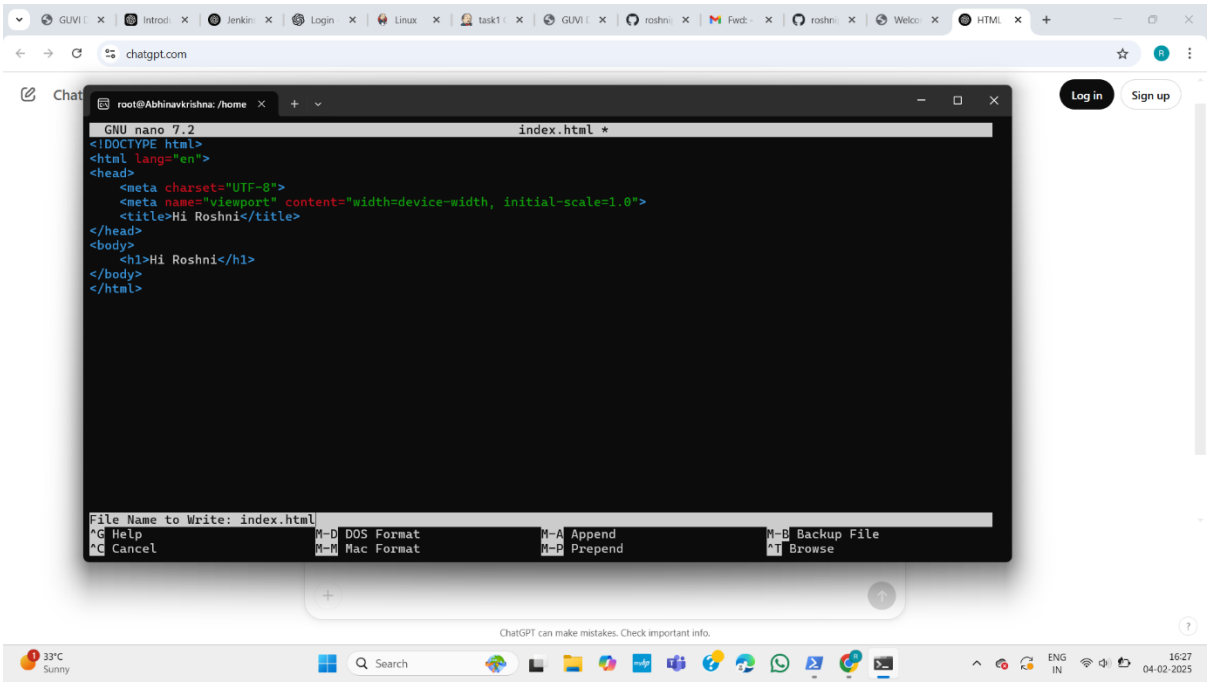
1. **Installing Nginx:**



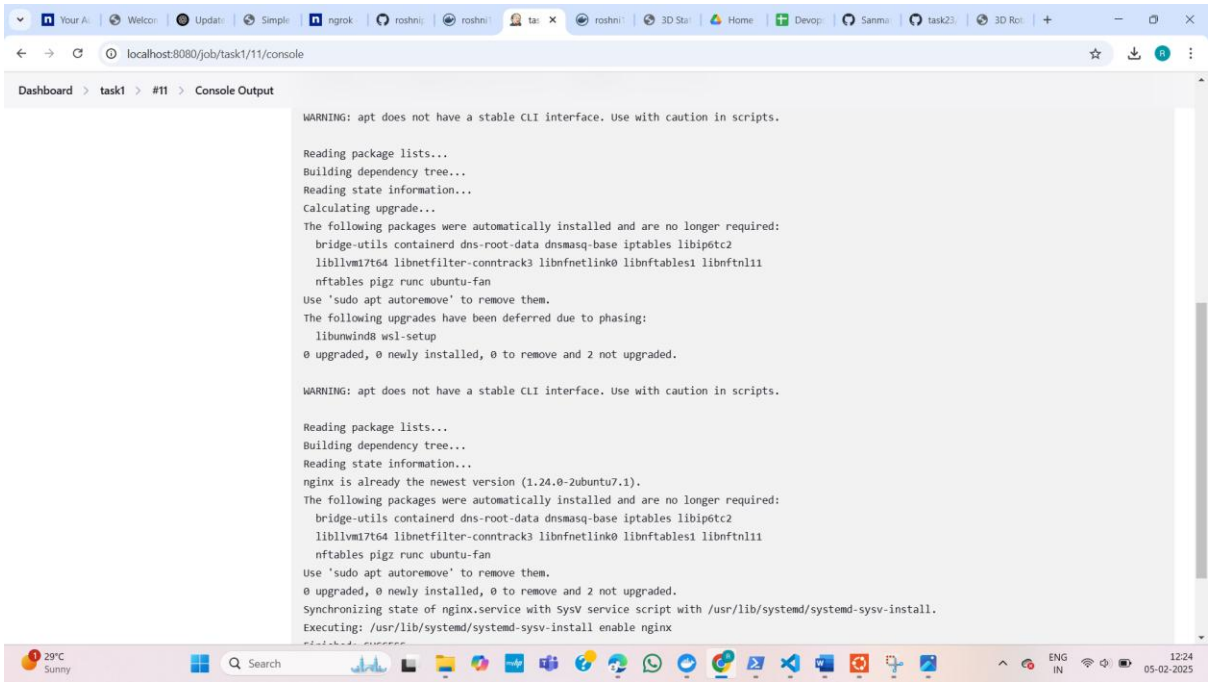
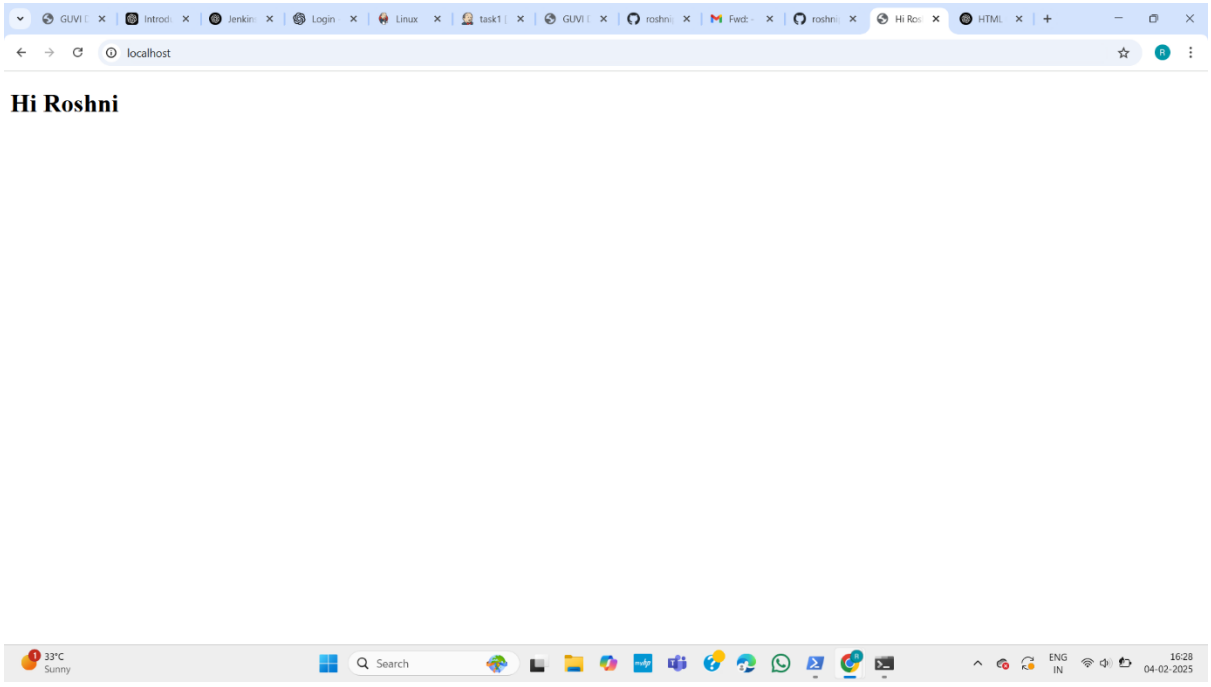
2. Updating Access for Jenkins:



3. Code:



4. Console Output:



5. Chrome Output: