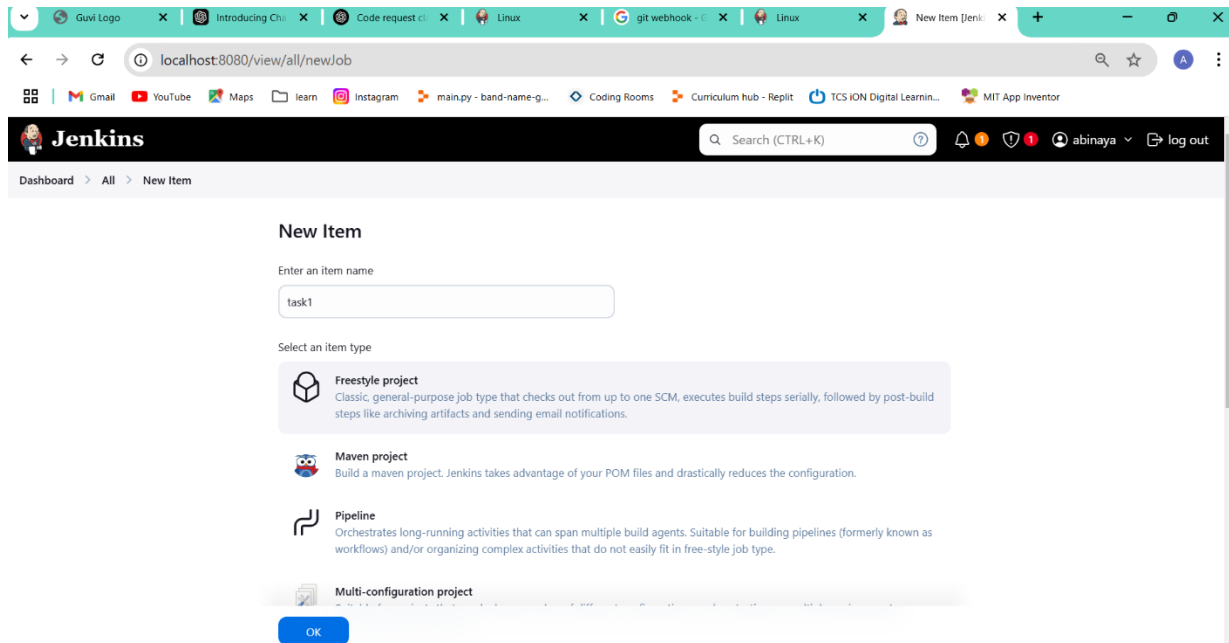


TASK 1

Create a simple FreeStyle Job to Install Nginx on you server (tools:Jenkins,Ubuntu vm)

Step 1: Create a Jenkins Job to Install Nginx:



- **Open Jenkins Dashboard.**
- Click on "New Item" → "Freestyle Project" → Name it **task1**.
- Click **OK**.

Step 2: Creating a directory and creating index.html file in it:

```
sudo mkdir -p /var/lib/jenkins/workspace/html_files
```

```
sudo chmod -R 777 /var/lib/jenkins/workspace/html_files
```

```
sudo nano /var/lib/jenkins/workspace/html_files/index.html
```

```
abinaya@ABINAYA: ~  
abinaya@ABINAYA:~$ sudo visudo  
[sudo] password for abinaya:  
Sorry, try again.  
[sudo] password for abinaya:  
visudo: /etc/sudoers.tmp unchanged  
abinaya@ABINAYA:~$ sudo mkdir -p /var/lib/jenkins/workspace/html_files  
abinaya@ABINAYA:~$ sudo chmod -R 777 /var/lib/jenkins/workspace/html_files  
abinaya@ABINAYA:~$ sudo nano /var/lib/jenkins/workspace/html_files/index.html  
abinaya@ABINAYA:~$
```

index.html:

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport"
content="width=device-width, initial-
scale=1">

  <title>Guvi Home</title>

<style>

  /* Basic CSS styling for layout */

  body {

    margin: 0;

    font-family: Arial, sans-serif;

    background-color: #f2f2f2;

  }

  header {

    background-color: #ffffff;

    padding: 10px 20px;

    display: flex;

    align-items: center;

    box-shadow: 0 2px 4px rgba(0,0,0,0.1);

  }

  header img {

    height: 40px;

  }

  nav {
```

```
margin-left: auto;

  }

  nav a {

    margin: 0 15px;

    text-decoration: none;

    color: #333;

    font-weight: bold;

  }

  .hero {

    background:
url('https://www.guvi.in/images/hero-
bg.jpg') no-repeat center center;

    background-size: cover;

    color: #fff;

    padding: 100px 20px;

    text-align: center;

  }

  .hero h1 {

    font-size: 48px;

    margin-bottom: 20px;

  }

  .hero p {

    font-size: 18px;

    margin-bottom: 30px;

  }

  .hero a {

    display: inline-block;
```

```

background-color: #007BFF;
color: #fff;
padding: 12px 25px;
text-decoration: none;
border-radius: 4px;
font-size: 16px;
}
.container {
padding: 40px 20px;
background-color: #fff;
margin: 20px auto;
max-width: 1200px;
box-shadow: 0 2px 4px rgba(0,0,0,0.1);
}
footer {
background-color: #333;
color: #fff;
text-align: center;
padding: 15px;
}
</style>
</head>
<body>
<header>
<!-- Guvi Logo -->
<a href="index.html">

</a>
<!-- Navigation Menu -->
<nav>
<a href="#">Courses</a>
<a href="#">About</a>
<a href="#">Contact</a>
<a href="#">Login</a>
</nav>
</header>
<!-- Hero Section -->
<section class="hero">
<h1>Welcome to Guvi</h1>
<p>Empowering you with coding skills
for the future.</p>
<a href="#">Get Started</a>
</section>
<!-- Main Content Section -->
<div class="container">
<h2>Our Courses</h2>
<p>Explore our diverse range of courses
designed to help you master the latest
technologies in coding, data science, and
more.</p>
<!-- Additional content can be added
here -->

```

</body>

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```

GNU nano 7.2 /var/lib/jenkins/workspace/html_files/index.html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Guvi Home</title>
  <style>
    /* Basic CSS styling for layout */
    body {
      margin: 0;
      font-family: Arial, sans-serif;
      background-color: #f2f2f2;
    }
    header {
      background-color: #ffffff;
      padding: 10px 20px;
      display: flex;
      align-items: center;
      box-shadow: 0 2px 4px rgba(0,0,0,0.1);
    }
    header img {
      height: 40px;
    }
    nav {
      margin-left: auto;
  
```

[Read 106 lines]

| | | | | | | | |
|---------|--------------|-------------|----------|------------|---------------|----------|--------------|
| ^G Help | ^O Write Out | ^W Where Is | ^K Cut | ^T Execute | ^C Location | M-U Undo | M-A Set Mark |
| ^X Exit | ^R Read File | ^_ Replace | ^U Paste | ^J Justify | ^_ Go To Line | M-E Redo | M-6 Copy |

Step 3: Open the execute shell and enter the following command:

```
# Create a directory for logs or temporary files
mkdir file5
```

```
# Update system packages
sudo apt update && sudo apt upgrade -y
```

```
# Install Nginx if not installed
sudo apt install nginx -y
```

```
# Start and enable Nginx service
sudo systemctl start nginx
sudo systemctl enable nginx
```

```
# Check if Nginx is running
systemctl status nginx
```

```
# Update package list again
sudo apt update
```

```
# Copy the HTML file from Jenkins workspace to Nginx document root
sudo cp /var/lib/jenkins/workspace/html_files/index.html /var/www/html/
```

```
# Restart Nginx to apply changes
sudo systemctl restart nginx
```

```
mkdir file5
sudo apt update && sudo apt upgrade -y
sudo apt install nginx -y
sudo systemctl start nginx
sudo systemctl enable nginx
systemctl status nginx
sudo apt update
# Copy the HTML file to the Nginx document root
sudo cp /var/lib/jenkins/workspace/html_files/index.html /var/www/html/
sudo systemctl restart nginx
```

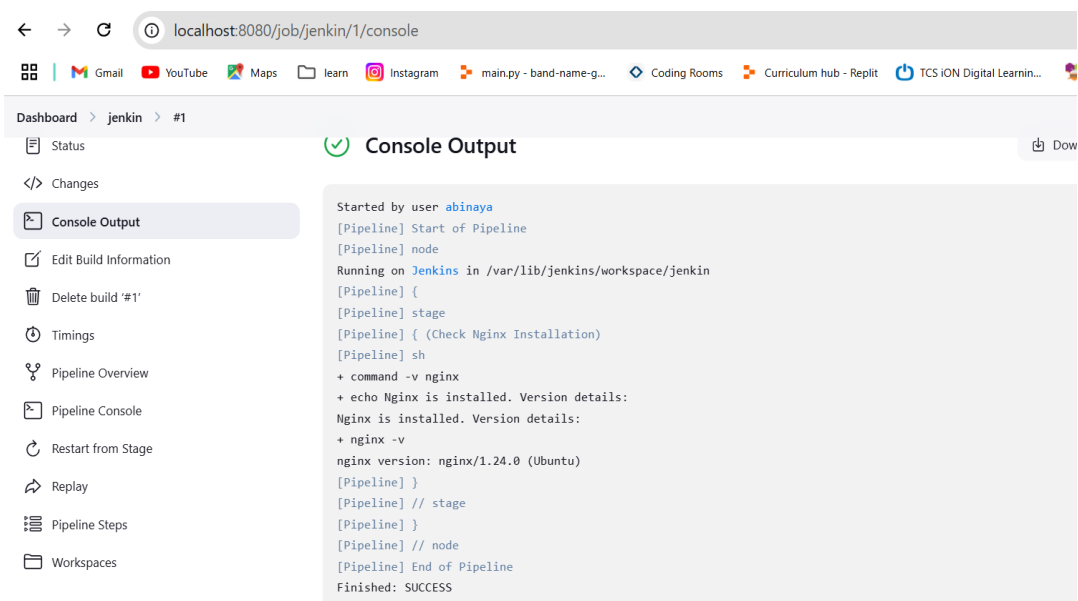
Step 4: Run the Jenkins Job

1. Click on "Build Now" to start the job.

Step 5: Verify the Build and Check Console Output

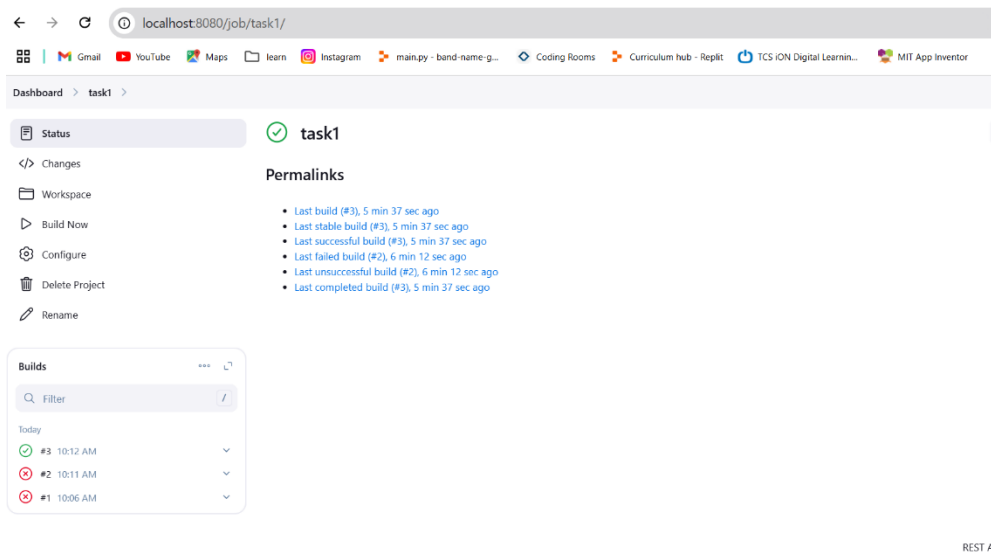
1. After the build finishes, click on "Console Output" to verify if there are any errors.
2. Ensure that all the commands executed successfully.

Verifying nginx is installed through jenkins:

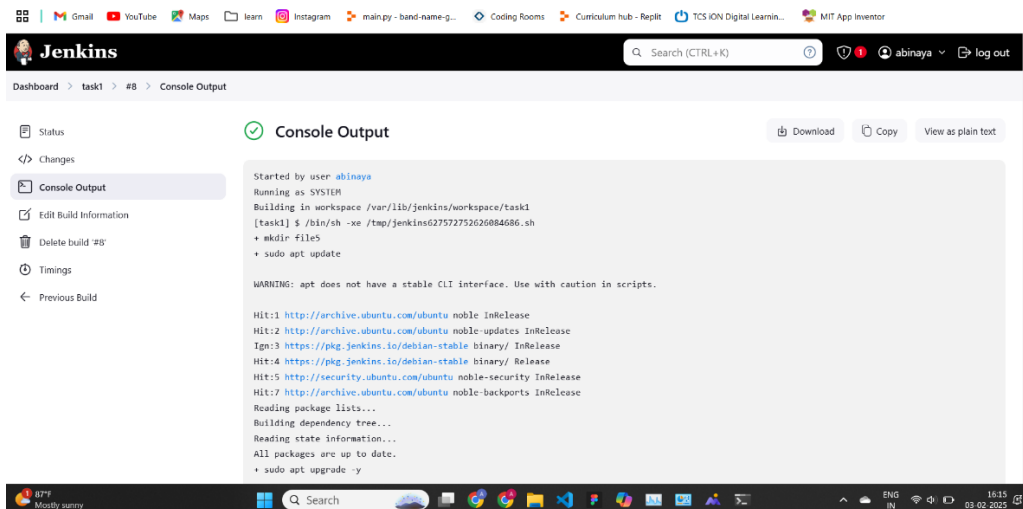


The screenshot shows the Jenkins web interface in a browser. The address bar indicates the URL is localhost:8080/job/jenkins/1/console. The left sidebar shows the navigation menu with 'Console Output' selected. The main area displays the console output for the Jenkins job, which includes the following text:

```
Started by user abinaya
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/jenkins
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Check Nginx Installation)
[Pipeline] sh
+ command -v nginx
+ echo Nginx is installed. Version details:
Nginx is installed. Version details:
+ nginx -v
nginx version: nginx/1.24.0 (Ubuntu)
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```



Console output:



Step 6: Verify the Output

1. Open a browser and go to <http://localhost:80>.
2. You should see the GUVI webpage hosted via Jenkins and Nginx with the content specified in the index.html file.

