

INTRODUCTION:

Nginx is a powerful web server and reverse proxy server that is widely used for serving static content, load balancing, and handling high traffic. Understanding the commands used in Nginx and their outputs is crucial for effective server management and troubleshooting.

Command Explanation:

The command **sudo visudo** is a critical command used in Unix-like operating systems for safely editing the **sudoers** file, which controls the permissions for users to execute commands with superuser privileges.

The command **touch index.html** is a commonly used command in Unix-like operating systems that serves two primary purposes: creating a new file and updating the timestamp of an existing file.

The command **nano index.html** is used to open the **index.html** file in the Nano text editor, which is a simple and user-friendly command-line text editor available in Unix-like operating systems.

The command **pwd** stands for "print working directory." It is a fundamental command used in Unix-like operating systems to display the current directory in which the user is working.

```
#!/bin/bash

# Update & Upgrade the system
sudo apt update -y && sudo apt upgrade -y

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

# Start & Enable Nginx service
sudo systemctl start nginx
sudo systemctl enable nginx

# Restore the default Nginx page
sudo cp /var/lib/jenkins/index.html /var/www/html/index.nginx-debian.html

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

1. #!/bin/bash

This is a **shebang** (#!/), which specifies that the script should be executed using the **Bash shell** (/bin/bash).

2. Update & Upgrade the System

bash

sudo apt update -y && sudo apt upgrade -y

- sudo apt update -y: Updates the package list to fetch the latest available versions.
 - sudo apt upgrade -y: Upgrades all installed packages to their latest versions.
 - -y: Automatically confirms the upgrade without prompting the user.
-

3. Install Nginx if Not Installed

sudo apt install -y nginx

- Installs **Nginx**, a powerful web server.
 - -y ensures the installation proceeds without asking for confirmation.
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4. Start & Enable Nginx Service

```
sudo systemctl start nginx
```

```
sudo systemctl enable nginx
```

- `sudo systemctl start nginx`: Starts the Nginx service.
 - `sudo systemctl enable nginx`: Ensures Nginx starts automatically on system boot.
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5. Restore the Default Nginx Page

```
sudo cp /usr/share/nginx/html/index.html /var/www/html/index.nginx-debian.html
```

- Copies the default **Nginx welcome page** (`index.html`) from `/usr/share/nginx/html/` to `/var/www/html/`, renaming it as `index.nginx-debian.html`.
 - This might be useful to restore the default welcome page if it was modified or deleted.
-

6. Restart Nginx to Apply Changes

```
sudo systemctl restart nginx
```

- Restarts the Nginx service to apply any changes.

Default page output:

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

Index.html

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
  <meta charset="UTF-8">
```

```
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
  <title>NGINX</title>
```

```
</head>
```

```
<body>
```

```
  <h1>NGINX</h1>
```

```
  <p>Welcome to the NGINX server. This is a simple HTML page.</p>
```

```
</body>
```

```
</html>
```

Output

NGINX

Welcome to the NGINX server. This is a simple HTML page.