# \*\*DevOps Lab 7 (BCSL657D)\*\*

### \*\*Installing Ansible on WSL and Configuring NGINX\*\*

---

## \*\*Option 1: Windows Subsystem for Linux (WSL) Setup\*\*

### \*\*Step 1: Install WSL\*\*

1. Open \*\*PowerShell as Administrator\*\*

2. Run:

```powershell

wsl --install

```

- Automatically installs Ubuntu

- Reboots your system

> ⚠️ If you see \*"The requested operation requires elevation"\*, ensure PowerShell is run as Admin.

---

## \*\*Lab Execution Steps\*\*

### \*\*Step 2: Install Ansible in WSL\*\*

1. Open \*\*Ubuntu\*\* from Start Menu

2. Set up Linux username/password

3. Run:

```bash

sudo apt update && sudo apt install ansible -y

```

---

### \*\*Step 3: Create Lab Directory & Inventory File\*\*

1. Create working directory:

```bash

mkdir ~/ansible-lab && cd ~/ansible-lab

```

2. Create `hosts` file:

```bash

nano hosts

```

3. Paste this (\*\*code block\*\*):

```ini

[local]

localhost ansible\_connection=local

```

4. Save:

- `Ctrl+O` → `Enter` → `Ctrl+X`

---

### \*\*Step 4: Test Ansible\*\*

Run ping test:

```bash

ansible -i hosts local -m ping

```

✅ \*\*Expected Output\*\*:

```json

localhost | SUCCESS => {

"changed": false,

"ping": "pong"

}

```

---

### \*\*Step 5: Create NGINX Playbook\*\*

1. Create `install\_nginx.yml`:

```bash

nano install\_nginx.yml

```

2. Paste this (\*\*YAML code\*\*):

- name: Install and start NGINX

hosts: local

become: yes

tasks:

- name: Install NGINX

apt:

name: nginx

state: present

update\_cache: yes

- name: Start NGINX

service:

name: nginx

state: started

enabled: yes

3. Save (`Ctrl+O` → `Enter` → `Ctrl+X`).

---

### \*\*Step 6: Run Playbook & Verify\*\*

1. Execute playbook:

```bash

ansible-playbook -i hosts install\_nginx.yml

```

2. Verify NGINX is running:

```bash

curl http://localhost

```

✅ You should see the \*\*NGINX welcome page HTML\*\*.

---

## \*\*VTU Lab Report Requirements\*\*

- \*\*Objective\*\*: Automate NGINX installation using Ansible.

- \*\*Screenshots\*\*:

- `hosts` file content

- Ansible ping test

- Playbook execution output

- NGINX welcome page via `curl`

---

### \*\*How to Convert to PDF\*\*

1. \*\*Copy this entire formatted text\*\* (headers/code blocks intact).

2. \*\*Paste into Microsoft Word\*\*:

- Code blocks will appear in monospace font (like `this`).

3. \*\*Export as PDF\*\*:

- File → Save As → Choose \*\*PDF (.pdf)\*\* format.

> 🔍 \*\*Pro Tip\*\*: For better readability, manually adjust code block backgrounds in Word (select text → go to \*"Shading"\* → choose light gray).

Let me know if you'd like me to email you a pre-formatted Word template!