

Name: Rajyardhan Patil

Div: A Roll No : 40

## 1. Ansible Introduction (puppet)

### What is Ansible?

**Ansible** is an open-source IT automation tool. It helps automate tasks like:

- Installing software
- Configuring servers
- Managing networks
- Deploying applications

Ansible uses simple YAML files called **Playbooks** to describe what should be done. It is **agentless**, meaning you only need SSH access to the remote machines—no need to install extra software on them.

### What is Puppet?

**Puppet** is another popular configuration management tool. It:

- Uses its own domain-specific language (DSL), similar to Ruby
- Usually follows a **client-server** model, with a central Puppet master
- Uses a **pull** model—clients pull configurations from the server

### Ansible vs Puppet (Comparison):

Feature	Ansible	Puppet
Language	YAML (simple and readable)	DSL (Ruby-like, more complex)
Setup	Agentless (uses SSH)	Agent-based (requires installation)
Architecture	Push-based	Pull-based
Learning Curve	Easier	Steeper
Best For	Quick automation and provisioning	Large-scale infrastructure management

### Why choose Ansible?

- Easy to learn and use
- No need to install agents on target machines
- Works well for quick setup and automation
- Flexible and suitable for various use cases, especially for small to mid-sized environments

Name: Rajyardhan Patil  
Div: A Roll No : 40

## 2. Ad-hoc Ansible(puppet) commands

### Step 1: Setting Up Ubuntu and Ansible

#### Install Ubuntu

**wsl --install -d Ubuntu:** This installs **Ubuntu Linux** on your Windows system using WSL.

**wsl.exe -d Ubuntu:** This opens Ubuntu in the terminal.

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Windows\system32> wsl.exe -d Ubuntu
Provisioning the new WSL instance Ubuntu
This might take a while...
Create a default Unix user account: bvimit
New password:
Retype new password:
passwd: password updated successfully
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 5.15.167.4-microsoft-standard-WSL2 x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Mon Apr  7 04:03:44 UTC 2025

System load:  0.13               Processes:    32
Usage of /:   0.1% of 1006.85GB  Users logged in: 0
Memory usage: 11%              IPv4 address for eth0: 172.24.26.198
Swap usage:   0%
```

**sudo apt update && sudo apt u:** This updates the list of available software and upgrades everything to the latest version.

```
upgrade -yITNM-DES-0028:/mnt/c:/windows/system32$ sudo apt update && sudo apt u
[sudo] password for bvimit:
Hit:1 http://archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:4 http://archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:5 http://archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]Get:6 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [737 kB]
Get:7 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [141 kB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [9008 B]
Get:9 http://security.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadata [7068 B]
Get:10 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [828 kB]
Get:11 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [180 kB]
Get:12 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [52.3 kB]
Get:13 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [17.0 kB]
Get:14 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [849 kB]
Get:15 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [172 kB]
Get:16 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]
Get:17 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 c-n-f Metadata [468 B]
Get:18 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [17.6 kB]
Get:19 http://security.ubuntu.com/ubuntu noble-security/multiverse Translation-en [3792 B]
Get:20 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [212 B]
Get:21 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata [300 B]
Get:22 http://archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:23 http://archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:24 http://archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:25 http://archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:26 http://archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:27 http://archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:28 http://archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:29 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [987 kB]
```

**ansible --version:** This checks if Ansible is installed and shows the version.

```
bmim@BMIM-DES-0028: /mnt/c:/windows/system32$ ansible --version
ansible [core 2.16.3]
  config file = None
  configured module search path = ['/home/bvimit/.ansible/plugins/modules', '/usr/share/ansible/plugins/modules']ntu noble/main amd64 python3-jmespath all 1 ansible python module location = /usr/l
nons/dist-packages/ansible
  ansible collection location = /home/bvimit/.ansible/collections:/usr/share/ansible/collectionsld9 [21.2 kB]
  executable location = /usr/bin/ansiblenoble/universe amd64 python3-lockfile
  python version = 3.12.3 (main, Feb  4 2025, 14:48:35) [GCC 13.3.0] (/usr/bin/python3)tp://archive.ubuntu.com/ubuntu noble/main amd64 python3-simplejson am jinja version = 3.1.25 kB]
  libyaml = Truechive.ubuntu.com/ubuntu noble/universe amd64 python3-libcloud
bmim@BMIM-DES-0028: /mnt/c:/windows/system32$
```

Name: Rajyardhan Patil

Div: A Roll No : 40

**ansible localhost -m ping:** Sends a test "ping" to your own system using Ansible to check if it works.

```
bvimit@IMITNM-DES-0028:/mnt/c/Windows/system32$ ansible localhost -m ping
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | SUCCESS => {
  "changed": false,
  "ping": "pong"
}
bvimit@IMITNM-DES-0028:/mnt/c/Windows/system32$
```

### Run following command in Ubuntu

**ansible localhost -m shell -a "whoami":** Runs the whoami command to see the current user using the shell module.

```
bvimit@IMITNM-DES-0028: ~
bvimit@IMITNM-DES-0028:~$ ansible localhost -m shell -a "whoami"
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED | rc=0 >>
bvimit
bvimit@IMITNM-DES-0028:~$
```

**ansible localhost -m shell -a "ls -la /home/\$USER":** Lists all files and folders in your home directory (in detail).

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m shell -a "ls -la /home/$USER"
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED | rc=0 >>
total 32
drwxr-x--- 5 bvimit bvimit 4096 Apr  7 04:08 .
drwxr-xr-x 3 root   root   4096 Apr  7 04:03 ..
drwxr-xr-x 3 bvimit bvimit 4096 Apr  7 04:08 .ansible
-rw-r--r-- 1 bvimit bvimit  220 Apr  7 04:03 .bash_logout
-rw-r--r-- 1 bvimit bvimit 3771 Apr  7 04:03 .bashrc
drwx----- 2 bvimit bvimit 4096 Apr  7 04:03 .cache
drwxr-xr-x 2 bvimit bvimit 4096 Apr  7 04:03 .landscape
-rw-r--r-- 1 bvimit bvimit   0 Apr  7 04:03 .motd_shown
-rw-r--r-- 1 bvimit bvimit  807 Apr  7 04:03 .profile
-rw-r--r-- 1 bvimit bvimit   0 Apr  7 04:04 .sudo_as_admin_successful
bvimit@IMITNM-DES-0028:~$
```

**ansible localhost -m shell -a "mkdir -p /tmp/temp":** Makes a folder called temp inside /tmp. The -p allows it to create parent folders if needed.

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m shell -a "mkdir -p /tmp/temp"
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED | rc=0 >>
bvimit@IMITNM-DES-0028:~$
```

Name: Rajyardhan Patil

Div: A Roll No : 40

**ansible localhost -m shell -a "echo 'Welcome in BVIMIT' > /tmp/temp/hello.txt":** Creates a file called hello.txt in the temp folder and adds the text “Welcome in BVIMIT”.

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m shell -a "echo 'Welcome in BVIMIT' > /tmp/temp/hello.txt"
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED | rc=0 >>
```

**ansible localhost -m shell -a "ls -l /tmp/temp/":** Lists all files in the /tmp/temp directory.

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m shell -a "ls -l /tmp/temp/"
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED | rc=0 >>
total 4
-rw-r--r-- 1 bvimit bvimit 18 Apr  7 04:36 hello.txt
bvimit@IMITNM-DES-0028:~$
```

**ansible localhost -m command -a "cat /etc/os-release" :** Shows information about the Ubuntu version you are using.

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m command -a "cat /etc/os-release"
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED | rc=0 >>
PRETTY_NAME="Ubuntu 24.04.2 LTS"
NAME="Ubuntu"
VERSION_ID="24.04"
VERSION="24.04.2 LTS (Noble Numbat)"
VERSION_CODENAME=noble
ID=ubuntu
ID_LIKE=debian
HOME_URL="https://www.ubuntu.com/"
SUPPORT_URL="https://help.ubuntu.com/"
BUG_REPORT_URL="https://bugs.launchpad.net/ubuntu/"
PRIVACY_POLICY_URL="https://www.ubuntu.com/legal/terms-and-policies/privacy-policy"
UBUNTU_CODENAME=noble
LOGO=ubuntu-logo
bvimit@IMITNM-DES-0028:~$
```

Here we try to install the nginx package

**ansible localhost -m apt -a "name=nginx state=present" -b:** Installs nginx. The -b means "become root", which gives admin access (needs password).

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m apt -a "name=nginx state=present" -b
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | FAILED! => {
  "changed": false,
  "module_stderr": "sudo: a password is required\n",
  "module_stdout": "",
  "msg": "MODULE FAILURE\nSee stdout/stderr for the exact error",
  "rc": 1
}
```

This error because it's require password so we enter following command

If you get a permission error, you may have to enter your password.

```
bvimit@IMITNM-DES-0028:~$ sudo visudo
[sudo] password for bvimit:
visudo: /etc/sudoers.tmp unchanged
```

Name: Rajyardhan Patil

Div: A Roll No : 40

**ansible localhost -m apt -a "name=nginx state=present" -b**

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m apt -a "name=nginx state=present" -b
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED => {
  "cache_update_time": 1743998715,
  "cache_updated": false,
  "changed": true,
  "stderr": "",
  "stderr_lines": [],
  "stdout": "Reading package lists...\nBuilding dependency tree...\nReading state information...\nThe following additional packages will be installed:\n  nginx-common\nSuggested packages:\n  ssl-cert\nThe following NEW packages will be installed:\n  nginx nginx-common\n0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.\nNeed to get 551 kB of archives.\nAfter this operation, 1596 kB of additional disk space will be used.\nGet:1 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 nginx-common amd64 1.24.0-2ubuntu7.3 [520 kB]\nPreconfiguring packages ...\nFetched 551 kB in 1s (482 kB/s)\nSelecting previously unselected package nginx-common.\nReading database ... 5%\nReading database ... 10%\nReading database ... 15%\nReading database ... 20%\nReading database ... 25%\nReading database ... 30%\nReading database ... 35%\nReading database ... 40%\nReading database ... 45%\nReading database ... 50%\nReading database ... 55%\nReading database ... 60%\nReading database ... 65%\nReading database ... 70%\nReading database ... 75%\nReading database ... 80%\nReading database ... 85%\nReading database ... 90%\nReading database ... 95%\nReading database ... 100%\n63945 files and directories currently installed.\nPreparing to unpack .../nginx-common-1.24.0-2ubuntu7.3.all.deb ...\nUnpacking nginx-common (1.24.0-2ubuntu7.3) ...\nSelecting previously unselected package nginx.\nPreparing to unpack .../nginx-1.24.0-2ubuntu7.3 amd64.deb ...\nUnpacking nginx (1.24.0-2ubuntu7.3) ...\nSetting up nginx (1.24.0-2ubuntu7.3) ...\nSetting up nginx-common (1.24.0-2ubuntu7.3) ...\nCreated symlink /etc/systemd/system/multi-user.target.wants/nginx.service -> /usr/lib/systemd/system/nginx.service.\nProcessing triggers for man-db (2.12.0-4build2) ...\n"
```

**ansible localhost -m apt -a "name=nginx state=absent" -b : Uninstalls nginx.**

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m apt -a "name=nginx state=absent" -b
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED => {
  "changed": true,
  "stderr": "",
  "stderr_lines": [],
  "stdout": "Reading package lists...\nBuilding dependency tree...\nReading state information...\nThe following packages will be removed:\n  nginx nginx-common\n0 upgraded, 0 to remove and 0 not upgraded.\nAfter this operation, 1596 kB disk space will be freed.\n(R ... 10%\nReading database ... 15%\nReading database ... 20%\nReading database ... 25%\nReading database ... 30%\nReading database ... 35%\nReading database ... 40%\nReading database ... 45%\nReading database ... 50%\nReading database ... 55%\nReading database ... 60%\nReading database ... 65%\nReading database ... 70%\nReading database ... 75%\nReading database ... 80%\nReading database ... 85%\nReading database ... 90%\nReading database ... 95%\nReading database ... 100%\n63945 files and directories currently installed.)\nRemoving nginx-common (1.24.0-2ubuntu7.3) ...\nRemoving nginx (1.24.0-2ubuntu7.3) ...\n"
```

**ansible localhost -m user -a "name=testuser state=present" -b : Creates a user named testuser.**

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m user -a "name=testuser state=present" -b
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED => {
  "changed": true,
  "comment": "",
  "create_home": true,
  "group": 1001,
  "home": "/home/testuser",
  "name": "testuser",
  "shell": "/bin/sh",
  "state": "present",
  "system": false,
  "uid": 1001
}
```

**ansible localhost -m user -a "name=testuser state=absent" -b: Deletes the user named testuser.**

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m user -a "name=testuser state=absent" -b
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED => {
  "changed": true,
  "force": false,
  "name": "testuser",
  "remove": false,
  "state": "absent"
}
```

Name: Rajyardhan Patil

Div: A Roll No : 40

**ansible localhost -m file -a "path=/tmp/myfile.txt state=touch"**: Creates an empty file named myfile.txt in the /tmp folder.

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m file -a "path=/tmp/myfile.txt state=touch"
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED => {
  "changed": true,
  "dest": "/tmp/myfile.txt",
  "gid": 1000,
  "group": "bvimit",
  "mode": "0644",
  "owner": "bvimit",
  "size": 0,
  "state": "file",
  "uid": 1000
}
bvimit@IMITNM-DES-0028:~$ _
```

**ansible localhost -m shell -a "echo 'this is first line .'>/tmp/myfile.txt"**: Adds the text "this is first line ." to the file (overwrites if file already exists).

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m shell -a "echo 'this is first line .'>/tmp/myfile.txt"
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED | rc=0 >>
```

**ansible localhost -m shell -a "echo 'this is additional line .'>/tmp/myfile.txt"**: Adds another line to the file (appends without deleting existing content).

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m shell -a "echo 'this is additional line .'>/tmp/myfile.txt"
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED | rc=0 >>
```

**ansible localhost -m command -a "cat /tmp/myfile.txt"** : Shows the content of the file.

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m command -a "cat /tmp/myfile.txt"
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED | rc=0 >>
this is additional line .
bvimit@IMITNM-DES-0028:~$
```

## How to create,display,delete directory

**ansible localhost -m file -a "path=/tmp/mydir state=directory mode=0755"**: Creates a directory called mydir with permission 0755 (read/write/execute for owner, read/execute for others).

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m file -a "path=/tmp/mydir state=directory mode=0755"
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED => {
  "changed": true,
  "gid": 1000,
  "group": "bvimit",
  "mode": "0755",
  "owner": "bvimit",
  "path": "/tmp/mydir",
  "size": 4096,
  "state": "directory",
  "uid": 1000
}
```

**Name: Rajyardhan Patil**

**Div: A Roll No : 40**

**ls -la /tmp | grep mydir:** Manually checks if the mydir folder exists inside /tmp.

```
bvimit@IMITNM-DES-0028:~$ ls -la /tmp | grep mydir
drwxr-xr-x  2 bvimit bvimit 4096 Apr  7 05:16 mydir
```

**ansible localhost -m file -a "path=/tmp/mydir state=absent":** Deletes the folder mydir.

```
bvimit@IMITNM-DES-0028:~$ ansible localhost -m file -a "path=/tmp/mydir state=absent"
[WARNING]: No inventory was parsed, only implicit localhost is available
localhost | CHANGED => {
  "changed": true,
  "path": "/tmp/mydir",
  "state": "absent"
}
```

**Now we try to display the file, it's display null because we delete that directory**

```
bvimit@IMITNM-DES-0028:~$ ls -la /tmp | grep mydir
bvimit@IMITNM-DES-0028:~$ _
```

Name: Rajyardhan Patil

Div: A Roll No : 40

### 3. Using Ansible(puppet) playbooks

#### Playbook

A **Playbook** is a YAML file that defines a series of actions to be executed on managed nodes. It contains one or more "plays" that map groups of hosts to roles.

#### Example

```
---
- name: Update web
  servers hosts:
  webserver
  remote_user: root

  tasks:
  - name: Ensure apache is at the latest
    version ansible.builtin.yum:
      name: httpd
      state: latest

  - name: Write the apache config file
    ansible.builtin.template:
      src:
      /srv/httpd.j2 dest:
      /etc/httpd.conf

- name: Update db
  servers hosts:
  database
  remote_user: root

  tasks:
  - name: Ensure postgresql is at the latest
```

#### Play

A Play is a single, complete execution unit within a playbook. It specifies which hosts to target and what tasks to execute on those hosts. Plays are used to group related tasks and execute them in a specific order.

```
hosts: webserver

tasks:
  - name: Install Nginx
    apt:

- name: Install and configure Nginx
```



## Narrative Div

### Modules

Modules are the building blocks of Ansible tasks. They are small programs that perform a specific action on a managed node, such as installing a package, copying a file, or managing services. Example

The apt module used in a task to install a package:

```
- name: Install Nginx
  apt:
    name: nginx
```

### Tasks

Tasks are individual actions within a play that use modules to perform operations on managed nodes. Each task is executed in order and can include conditionals, loops, and handlers.

### Collections

```
-      name: Install Nginx
apt:    name: nginx

-      name: Start Nginx
service service:
  name: nginx
state: started
```

Collections are a distribution format for Ansible content. They bundle together multiple roles, modules, plugins, and other Ansible artifacts. Collections make it easier to share and reuse Ansible content. Example

A collection structure might look like this:

```
my_collection/ └─ roles/
|               └─ tasks/
|               └─ plugins/
└─ plugins/
|   └─ modules/
|       └─ my_module.py
```

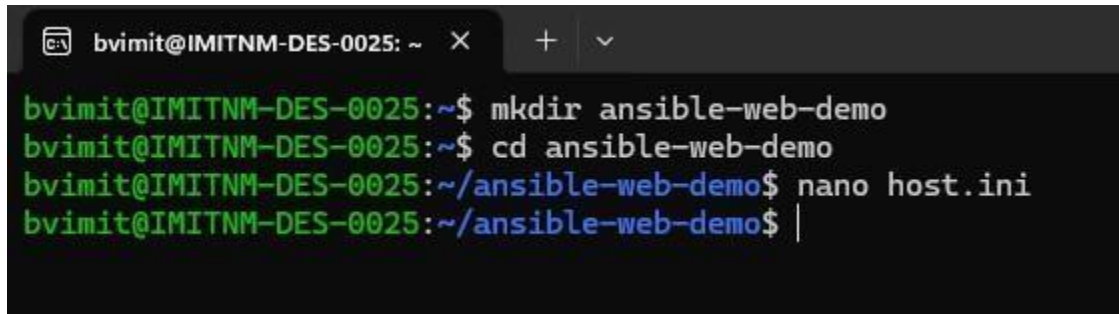
**Name: Rajyardhan Patil**

**Div: A Roll No : 40**

## 1. Directory Setup

Create a folder to work in:

```
mkdir ansible-web-demo  
cd  
ansible-web-demo
```

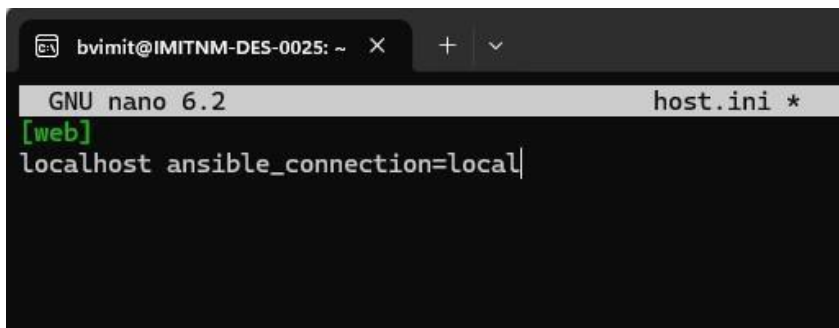
A terminal window with a dark background. The prompt is 'bvimit@IMITNM-DES-0025: ~'. The user enters 'mkdir ansible-web-demo', then 'cd ansible-web-demo', then 'nano host.ini', and finally a blank line.

```
bvimit@IMITNM-DES-0025: ~$ mkdir ansible-web-demo  
bvimit@IMITNM-DES-0025: ~$ cd ansible-web-demo  
bvimit@IMITNM-DES-0025: ~/ansible-web-demo$ nano host.ini  
bvimit@IMITNM-DES-0025: ~/ansible-web-demo$ |
```

## 2. Create the Inventory File (hosts.ini)

Create a file named hosts.ini:

ini CopyEdit [web]

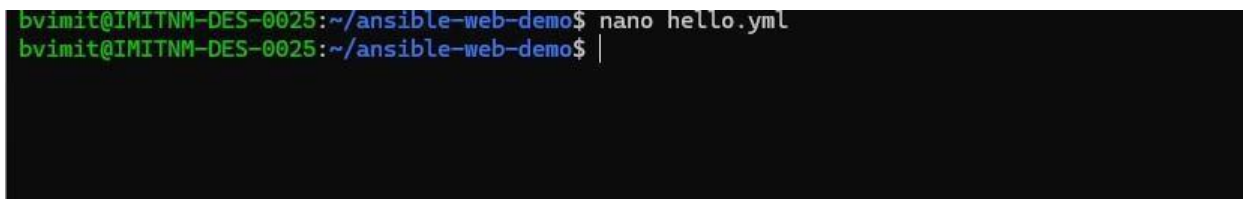
A terminal window showing the nano editor interface. The title bar says 'GNU nano 6.2' and 'host.ini \*'. The content of the file is '[web]' followed by 'localhost ansible\_connection=local' on the next line.

```
GNU nano 6.2 host.ini *  
[web]  
localhost ansible_connection=local|
```

localhost ansible\_connection=local

If you're testing on your own machine, use localhost.

## 3. Create a Simple Playbook (hello.yml)

A terminal window with a dark background. The prompt is 'bvimit@IMITNM-DES-0025: ~/ansible-web-demo'. The user enters 'nano hello.yml', and then a blank line.

```
bvimit@IMITNM-DES-0025: ~/ansible-web-demo$ nano hello.yml  
bvimit@IMITNM-DES-0025: ~/ansible-web-demo$ |
```

**Name: Rajyardhan Patil**

**Div: A Roll No : 40**

yaml

CopyEdit

---

- name: Serve Hello World HTML Page  
hosts: web become: yes

tasks:

- name: Install Apache Web Server apt:  
name: apache2

state: present update\_cache:

yes

- name: Create custom index.html

copy:

dest: /var/www/html/index.html content: |

<html>

<head><title>Hello</title></head>

<body>

<h1>Hello from Ansible 🙌</h1>

</body>

</html>

- name: Ensure Apache is running

service:

name: apache2

state: started enabled: yes

This installs Apache, creates /var/www/html/index.html, and starts the service.

Name: Rajyardhan Patil

Div: A Roll No : 40

```
bvimit@IMITNM-DES-0025: ~ × + v
GNU nano 6.2 hello.yml
tasks:
- name: Install Apache Web Server
  apt:
    name: apache2
    state: present
    update_cache: yes

- name: Create custom index.html
  copy:
    dest: /var/www/html/index.html
    content: |
      <html>
      <head><title>Hello bvimit</title></head>
      <body>
        <h1>Hello from Ansible 🙌</h1>
      </body>
      </html>

- name: Ensure Apache is running
  service:
    name: apache2
    state: started
    enabled: yes
```

## Save and Exit

- Press Ctrl + O, then Enter to save
- Press Ctrl + X to exit

## Run the Playbook

```
bvimit@IMITNM-DES-0025:~/ansible-web-demo$ ansible-playbook -i hosts.ini hello.yml --ask-become-pass
BECOME password:

PLAY [Serve Hello World HTML Page] *****

TASK [Gathering Facts] *****
ok: [localhost]

TASK [Install Apache Web Server] *****
ok: [localhost]

TASK [Create custom index.html] *****
ok: [localhost]

TASK [Ensure Apache is running] *****
ok: [localhost]

PLAY RECAP *****
localhost : ok=4  changed=0  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0
```

**Name: Rajvardhan Patil**  
**Div: A Roll No : 40**

### **Check the Result**

Open a browser and go to:



# **Hello from Ansible ðŸ‘€**