Name :- Anirudha Kurhade

Prn :- 22120150

Assignment 6

Aim: - Write an ansible-playbook to install nginx on target servers.

Description :-

1. What Is YAML ?

YAML (short for "YAML Ain't Markup Language") is a human-readable data serialization language. It is often used for configuration files but can also be used for data exchange between programming languages, and for storing structured data.

YAML syntax is designed to be easy to read and write for humans and is based on indentation and a set of reserved characters and symbols. It supports basic data types such as strings, integers, and floats, as well as more complex data structures like lists, maps, and nested structures. YAML files are often used in web development, DevOps, and containerization, where they can be used to define application configuration, environment variables, and other settings. YAML is also commonly used in automation and scripting, as it is easy to read and modify by humans and can be parsed by many programming languages.

2. Ansible :

Ansible is an open-source automation tool used for configuring and managing IT infrastructure. It allows users to automate the deployment and configuration of applications, servers, networks, and other IT resources. Ansible uses a simple syntax called YAML to define tasks, playbooks, and inventories, making it easy for both beginners and advanced users to write and maintain automation code.Ansible works by connecting to remote machines over SSH or WinRM protocols, and running tasks on those machines using modules. These modules are small pieces of code that are responsible for executing specific actions, such as installing packages, creating files, or starting services. Ansible also provides a rich set of built-in modules, as well as the ability to create custom modules.

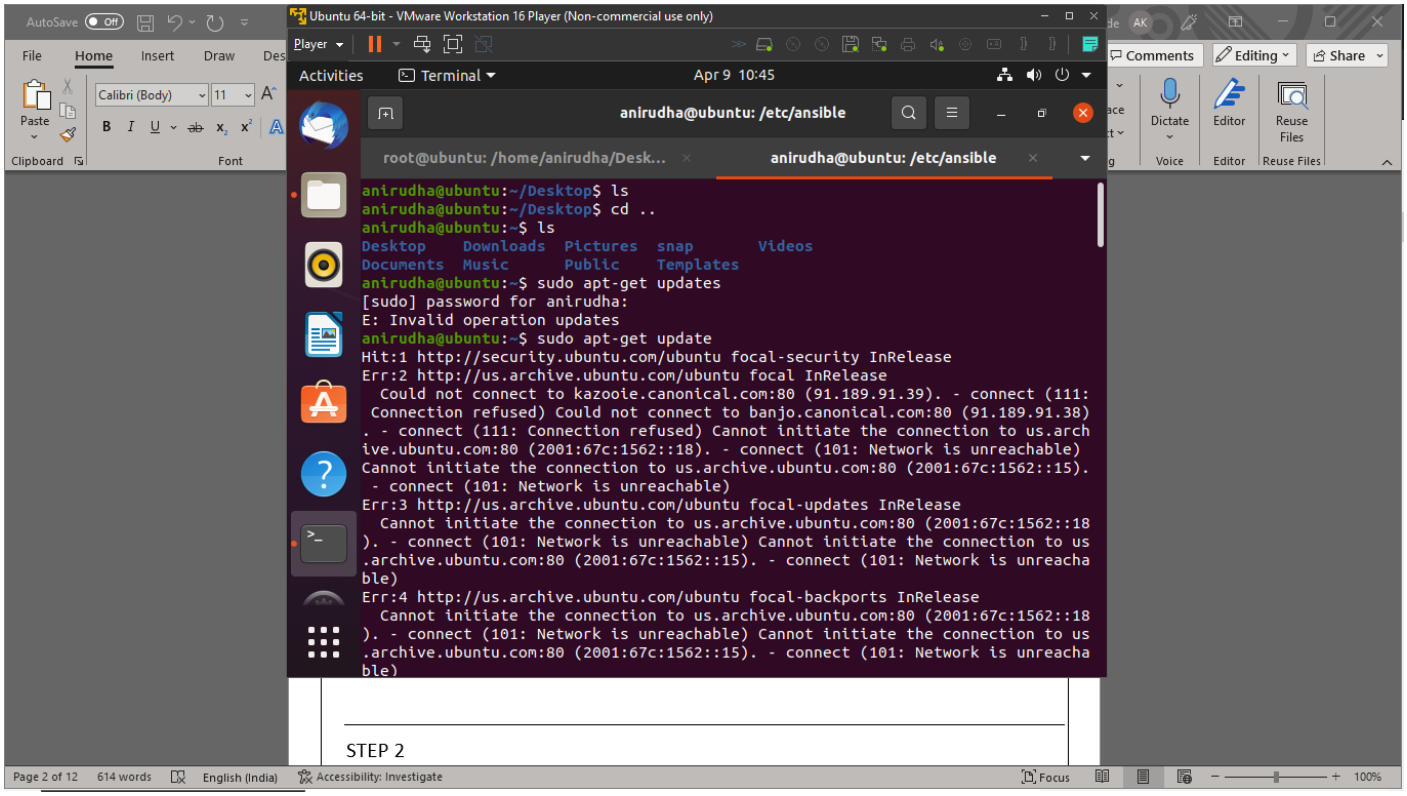
One of the key benefits of Ansible is its agentless architecture, which means that no software or agent needs to be installed on the remote machines in order for Ansible to manage them. This makes Ansible easy to use and deploy, and eliminates the need for

additional infrastructure. Ansible is widely used in DevOps, IT automation, and cloud computing, and is supported by a large and active community of developers and users.

Steps Output :-

→ Step 1: Install Ansible

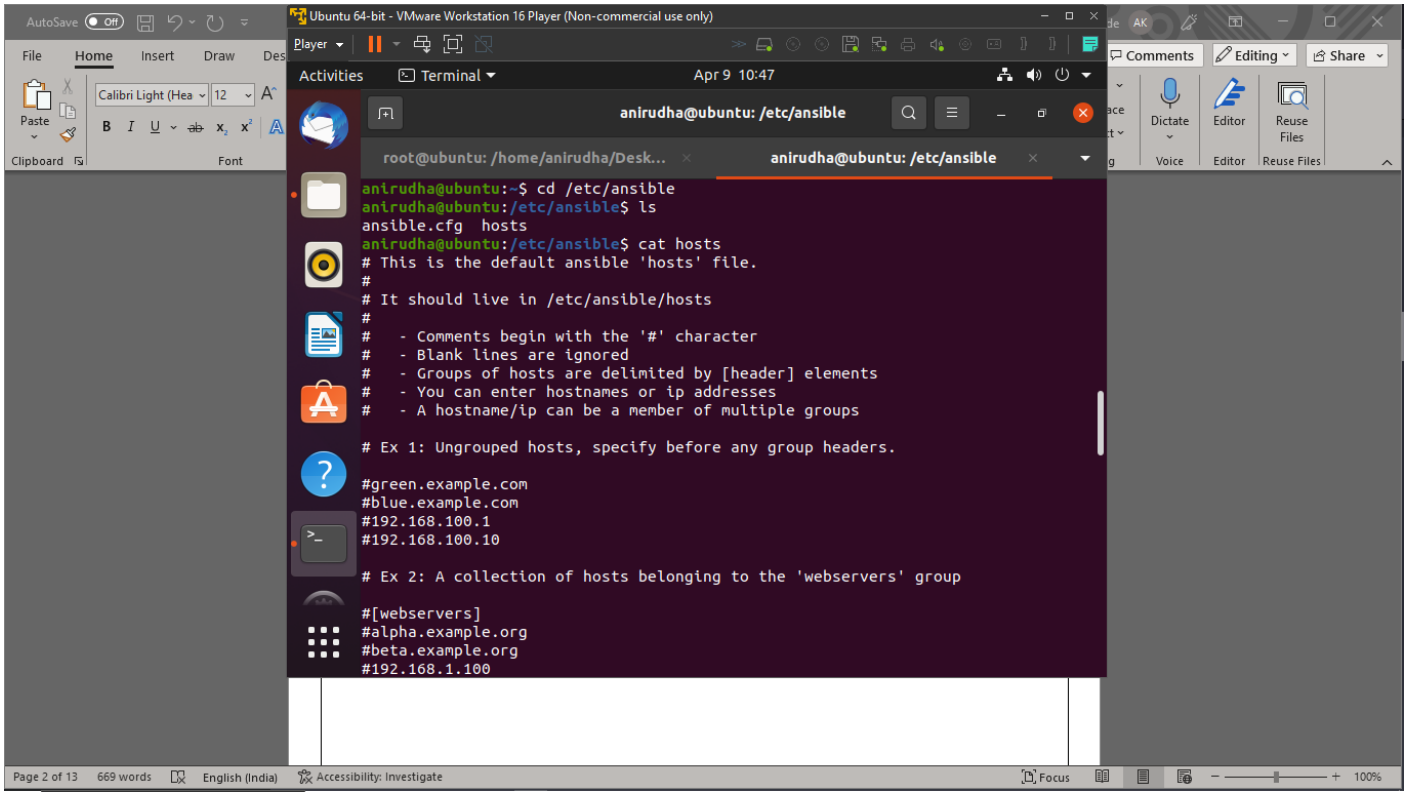
To run Ansible playbooks, you need to have Ansible installed on your system. You can install it using the package manager of your Linux distribution. For example, on Ubuntu, you can run the following command:

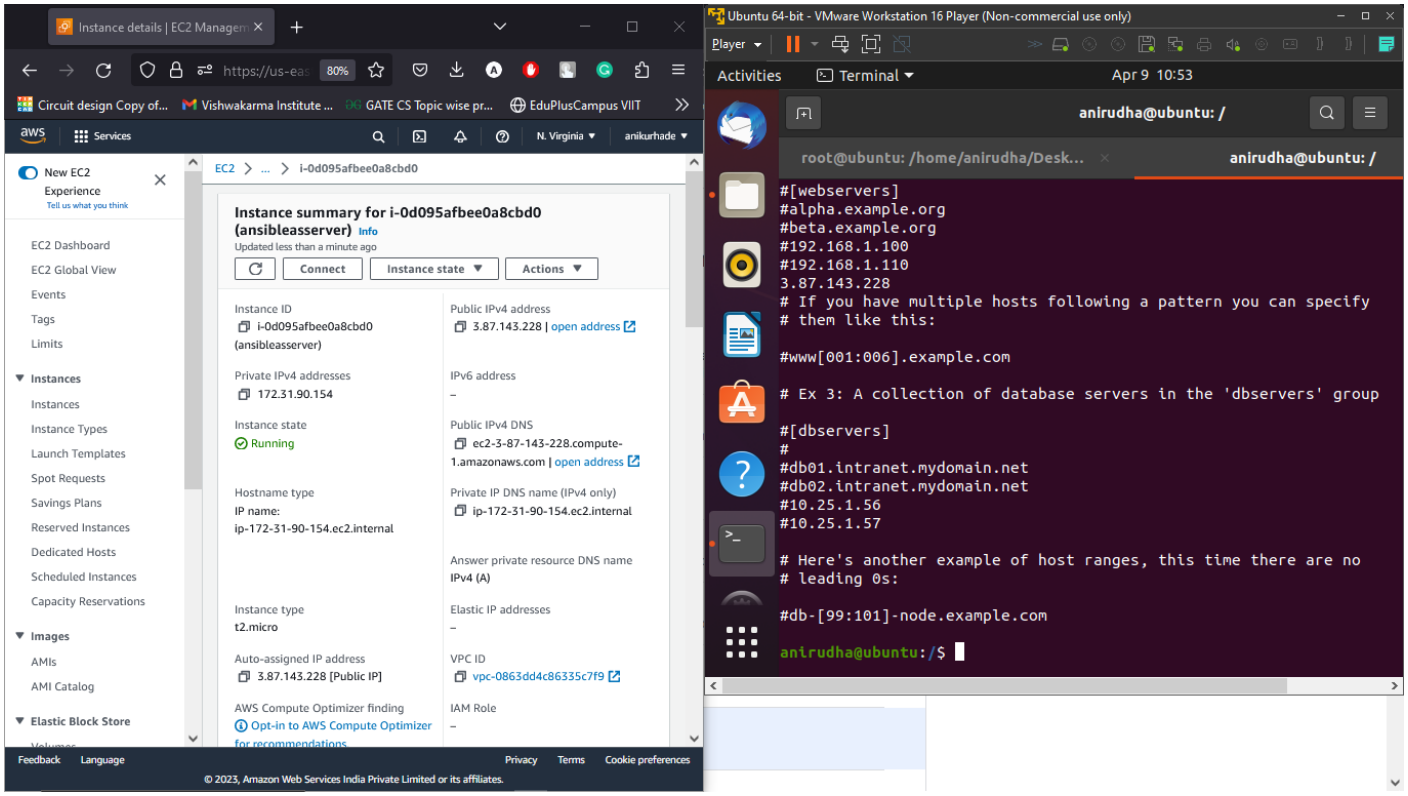


STEP 2

→ Step 2: Configure your hosts

Before running the playbook, you need to configure the hosts that you want to manage using Ansible. You can do this by adding the hosts to the /etc/ansible/hosts file.

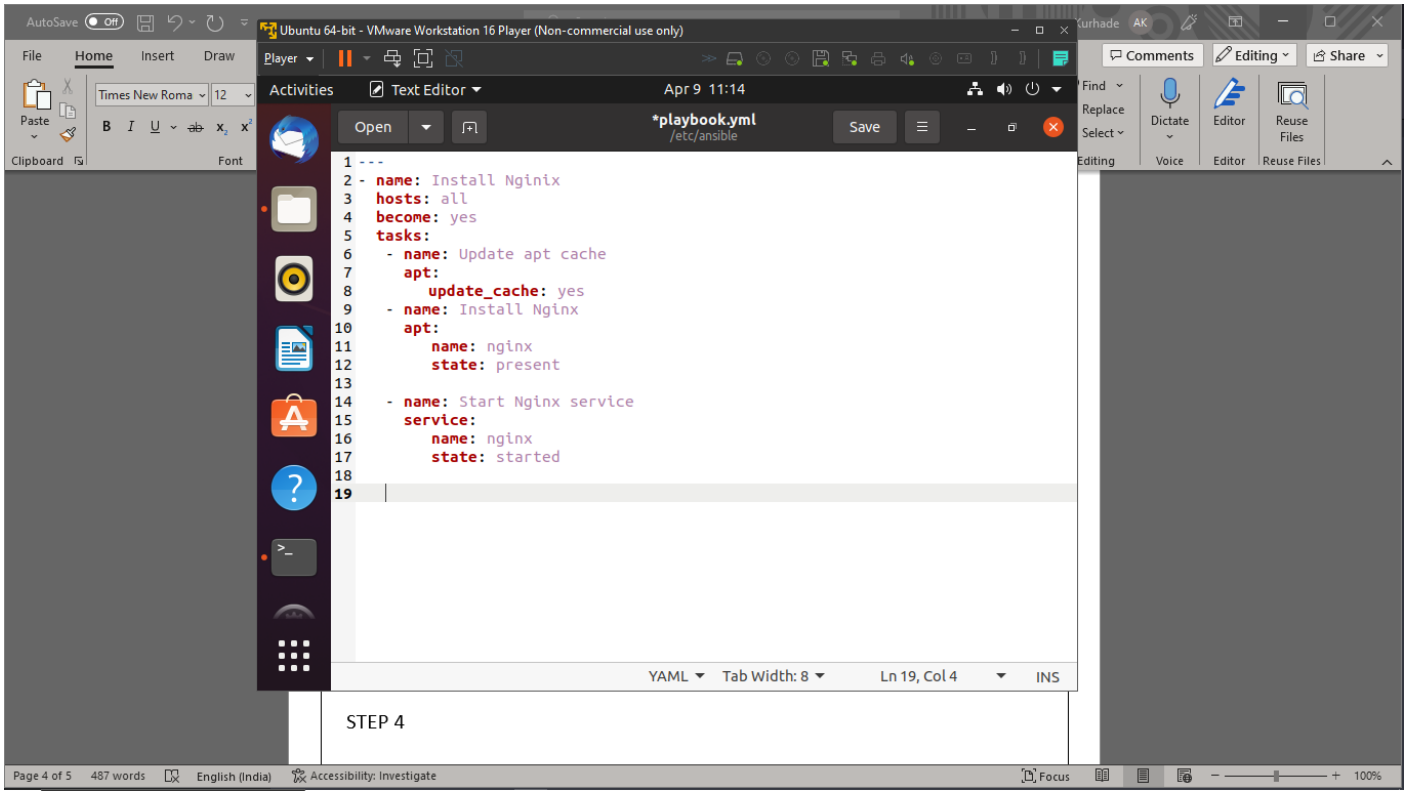




STEP 3

→ Create a playbook

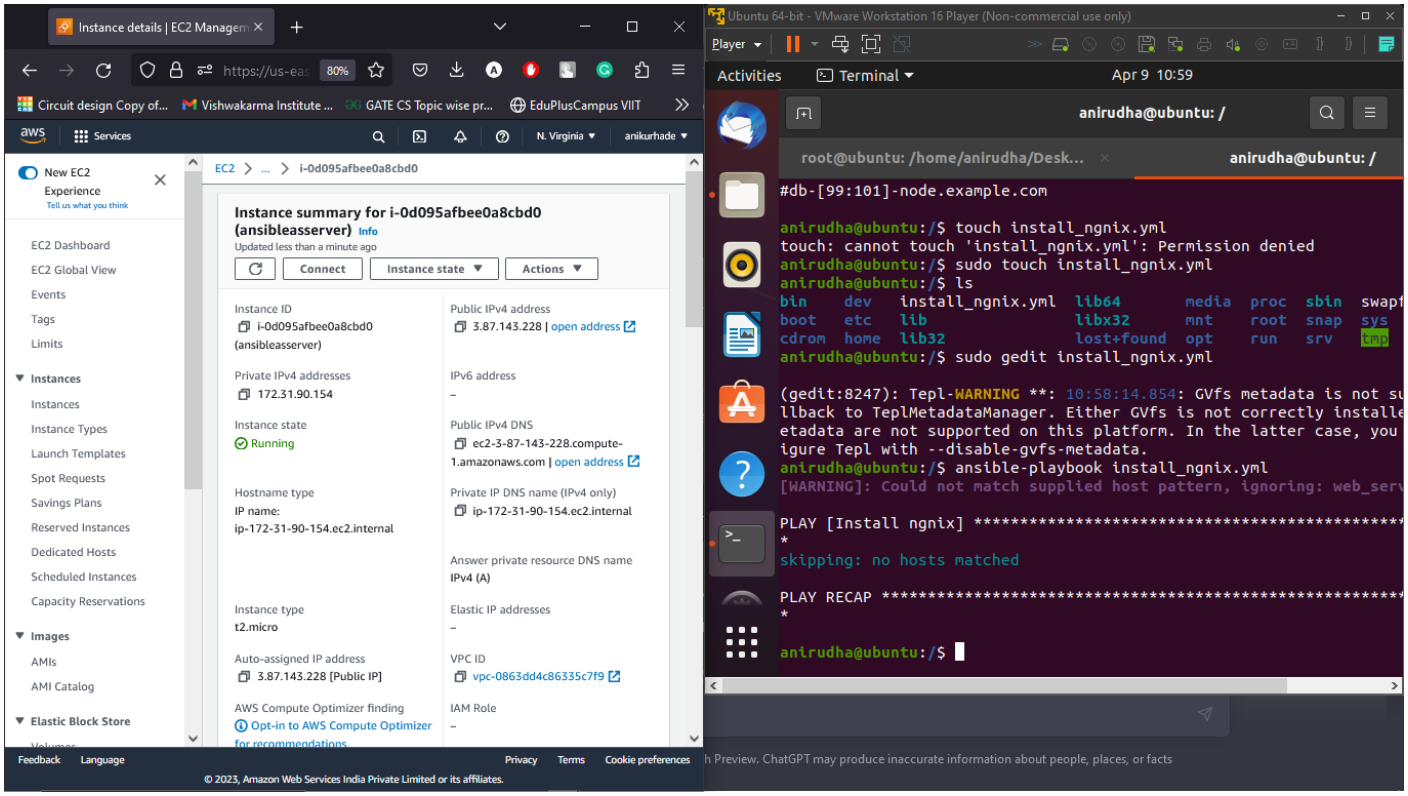
Create a new file called install_nginx.yml with the following contents:

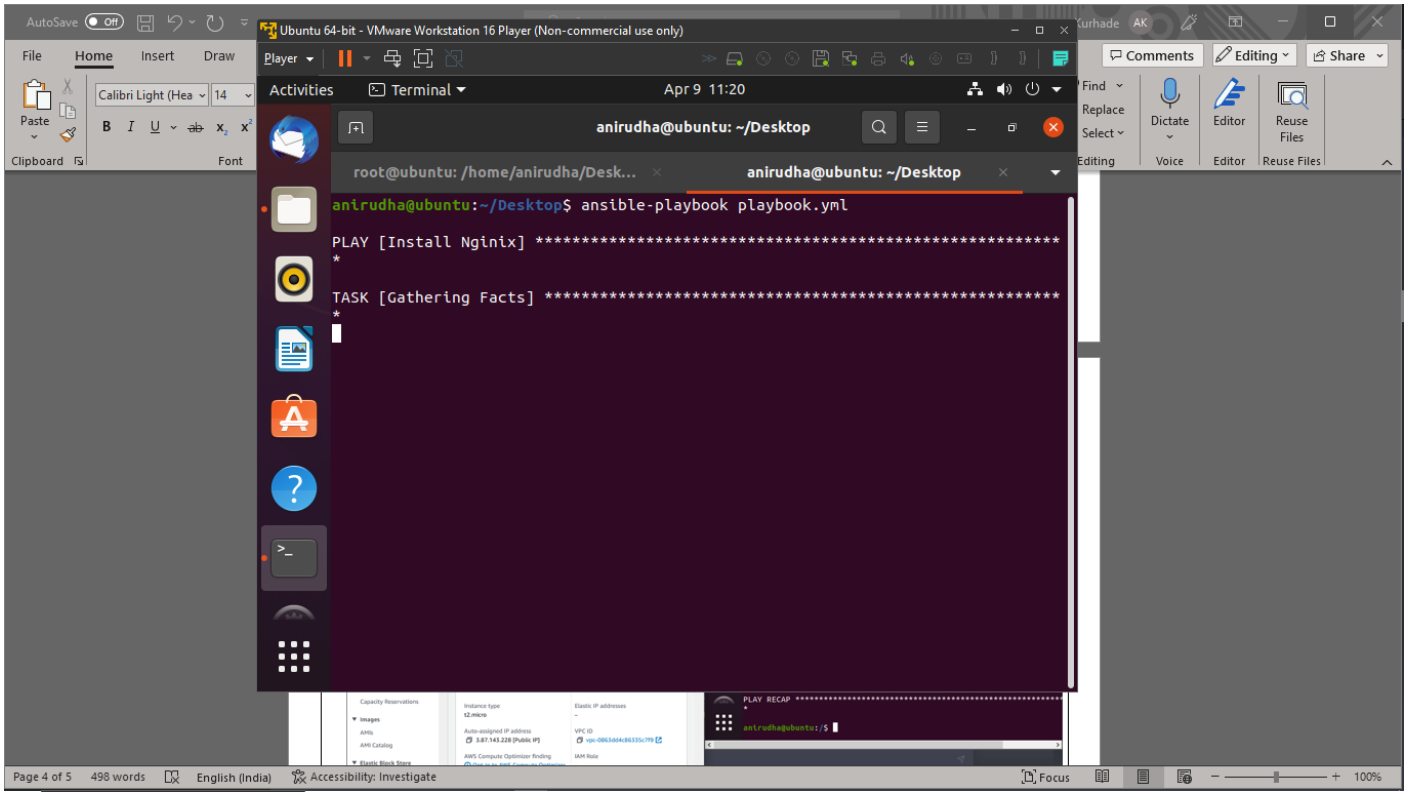


STEP 4

→ Step 4: Run the playbook

To run the playbook, open a terminal and navigate to the directory where you saved the install_nginx.yml file. Then, run the following command:





Conclusion :-

Thus, We Have Studied And Deployed an ansible-playbook to install nginx on target servers.