Practical Manual on Terraform

Terraform is an infrastructure as code (IaC) tool that allows you to build, change, and version infrastructure safely and efficiently. This includes low-level components such as compute instances, storage, and networking, as well as high level components such as DNS entries, SaaS features, etc.

Terraform can manage infrastructure on multiple cloud platforms. Terraform's state allows you to track resource changes throughout your deployments. You can commit your configurations to version control to safely collaborate on infrastructure. Terraform plugins called providers let Terraform interact with cloud platform and other services via their application programming interfaces (APIs).
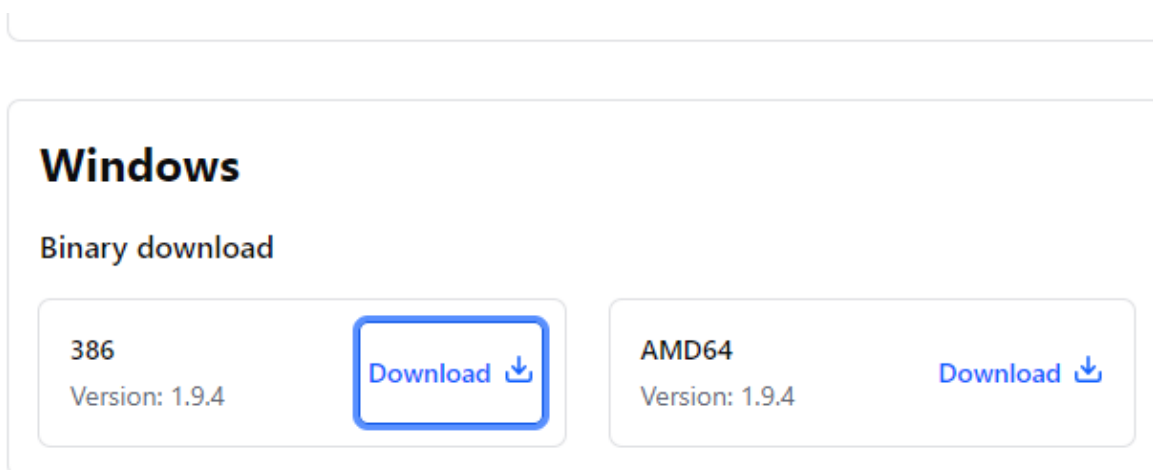
A) Installation and Configuration of Terraform in Windows
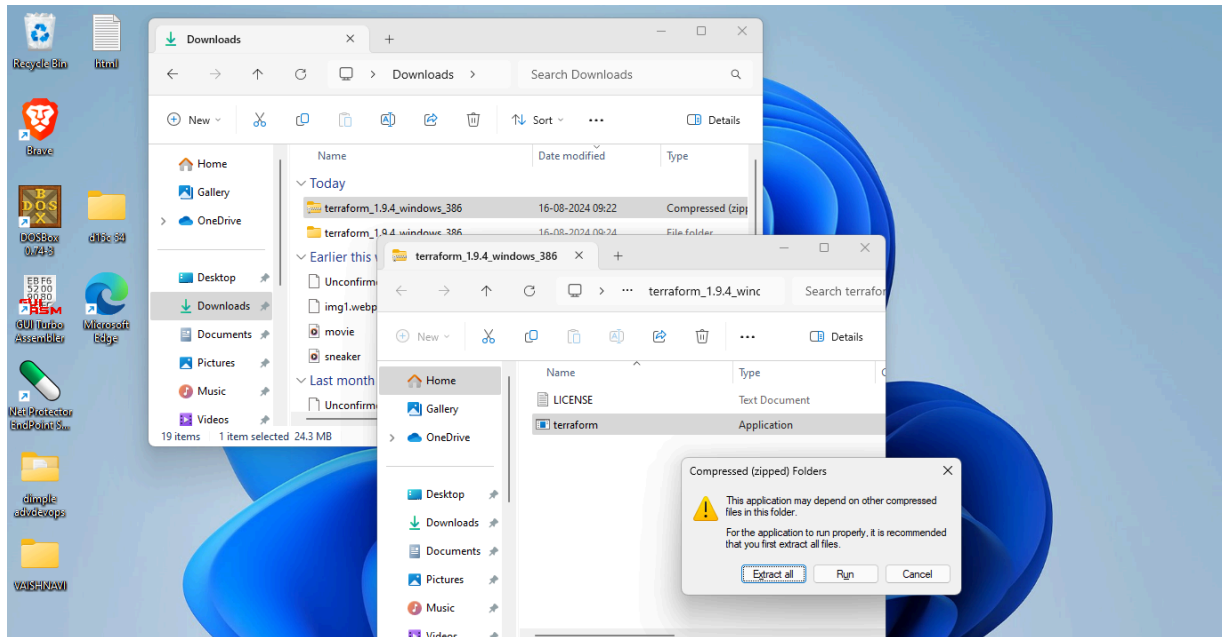
Step 1: Download terraform

To install Terraform, First Download the Terraform Cli Utility for windows from terraforms official website
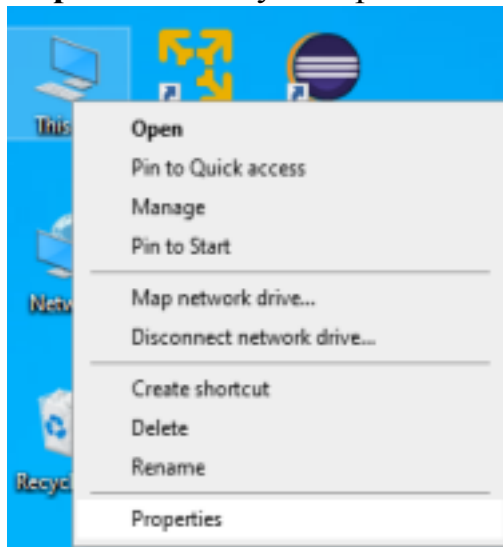
website:https://www.terraform.io/downloads.html

Select the Operating System Windows followed by either 32bit or 64 bit based on your OS type.
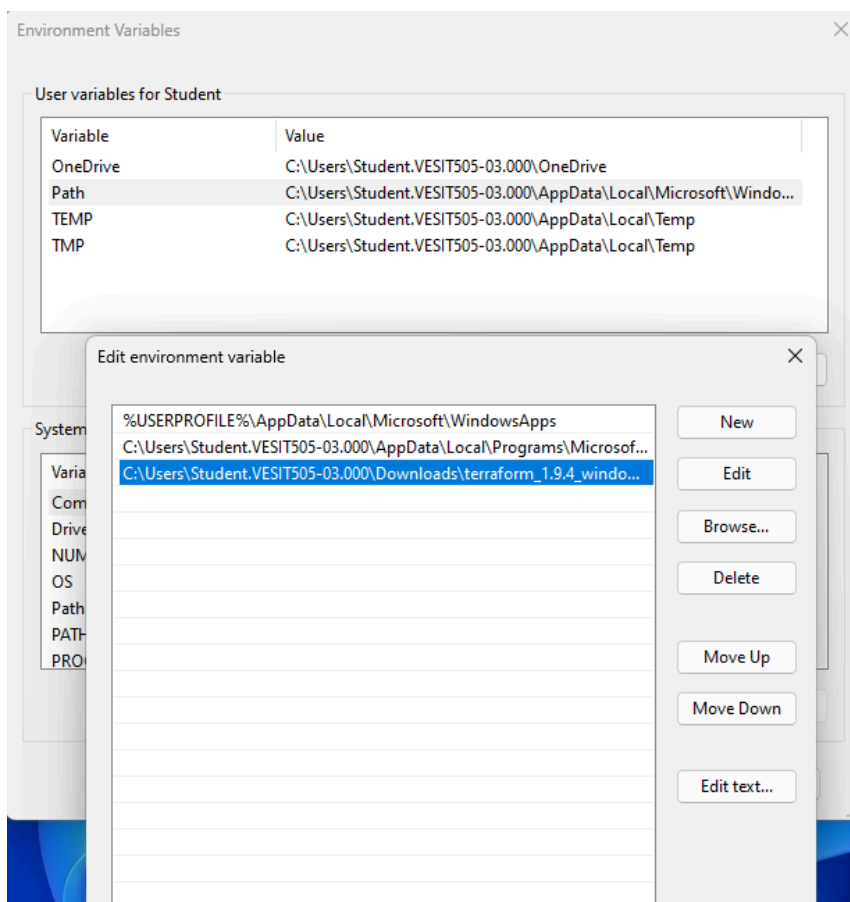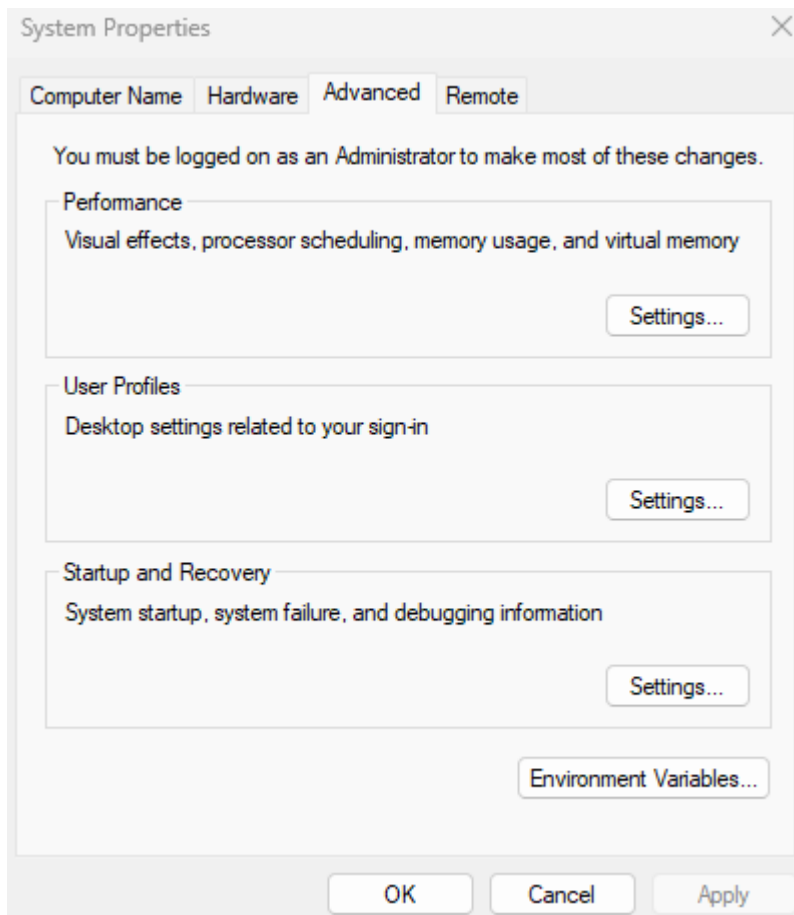

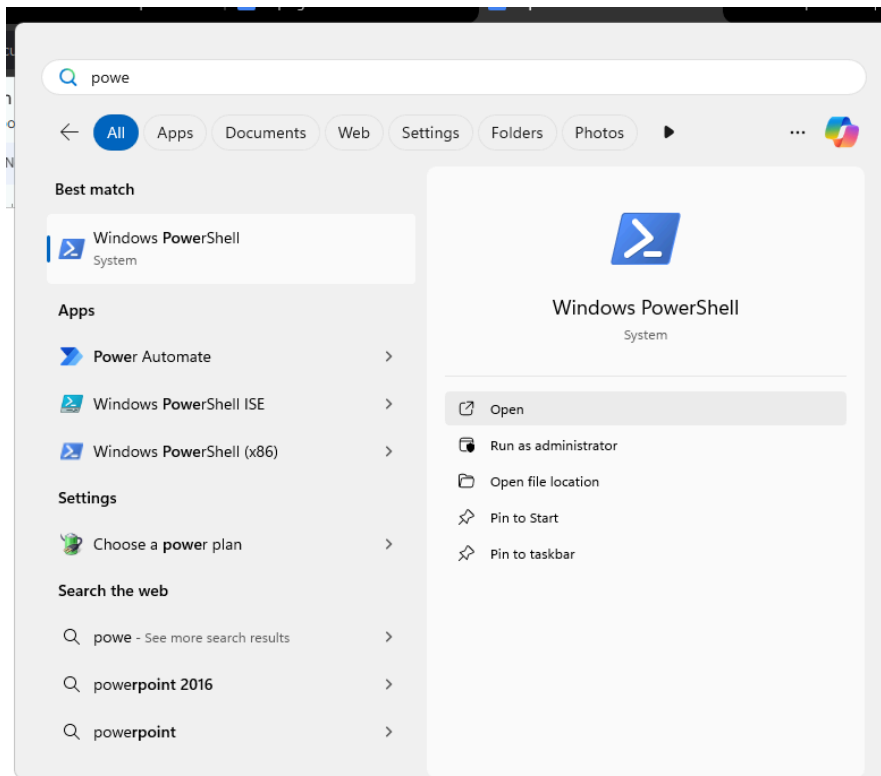**Step 2:** Extract the downloaded setup file Terraform.exe in C:\Terraform directory

Step 3: Set the System path for Terraform in Environment Variables

System Properties

Computer Name   Hardware   **Advanced**   Remote

You must be logged on as an Administrator to make most of these changes.

Performance

Visual effects, processor scheduling, memory usage, and virtual memory

Settings...

User Profiles

Desktop settings related to your sign-in

Settings...

Startup and Recovery

System startup, system failure, and debugging information

Settings...

Environment Variables...

OK   Cancel   Apply

Environment Variables

User variables for Student

Variable	Value
OneDrive	C:\Users\Student.VESIT505-03.000\OneDrive
Path	C:\Users\Student.VESIT505-03.000\AppData\Local\Microsoft\Windo...
TEMP	C:\Users\Student.VESIT505-03.000\AppData\Local\Temp
TMP	C:\Users\Student.VESIT505-03.000\AppData\Local\Temp

System

Varia
Com
Drive
NUM
OS
Path
PATH
PRO

Edit environment variable

%USERPROFILE%\AppData\Local\Microsoft\WindowsApps
C:\Users\Student.VESIT505-03.000\AppData\Local\Programs\Microsof...
C:\Users\Student.VESIT505-03.000\Downloads\terraform_1.9.4_windo...

New

Edit

Browse...

Delete

Move Up

Move Down

Edit text...

Step 4: Open PowerShell with Admin Access

Step 5 : Open Terraform in PowerShell and check its functionality

Note: If any error comes, then please recheck or set the path of Terraform in Environment variable again.