

EXPERIMENT 5:TERRAFORM

AIM:To understand terraform lifecycle, core concepts/terminologies and install it on a Linux Machine and Windows.

Installation and Configuration of Terraform in Windows:

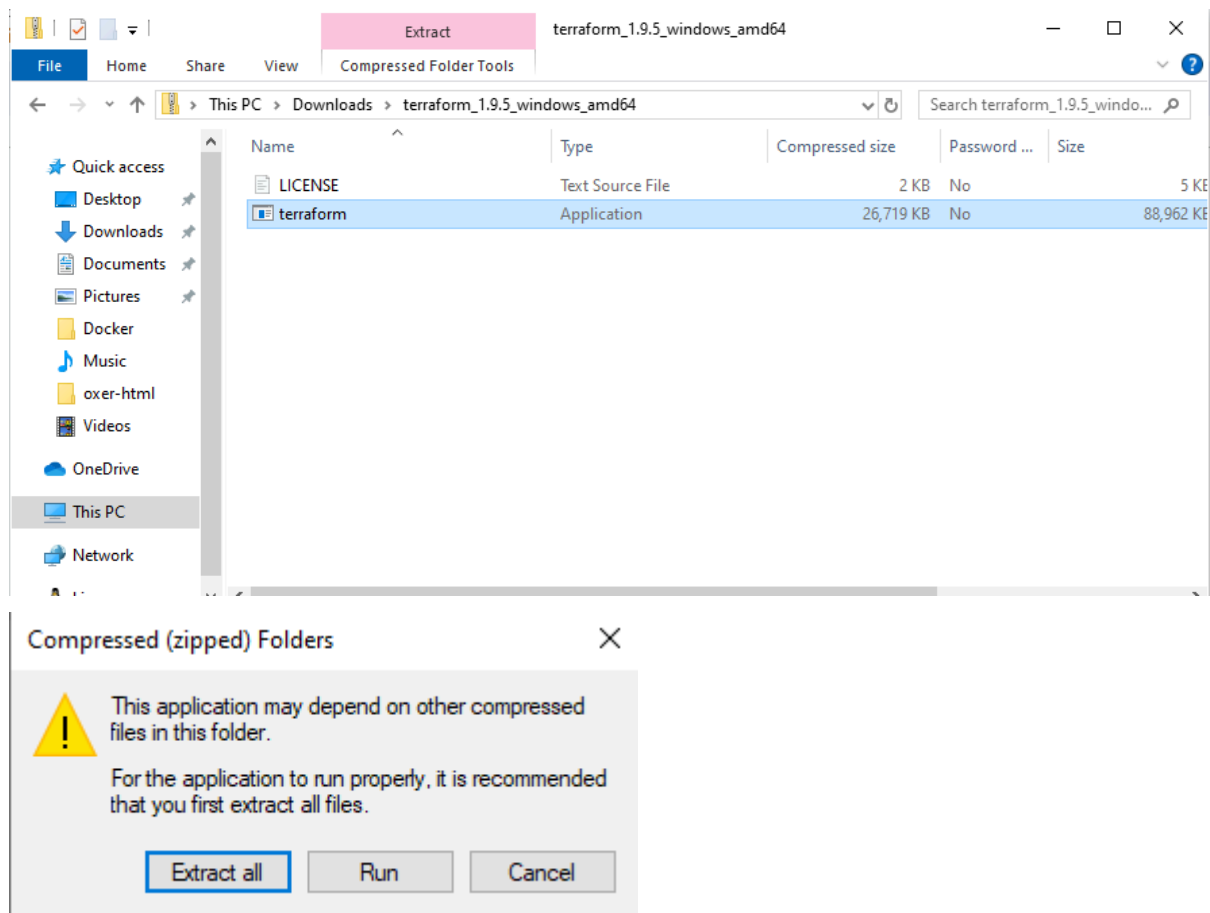
1: To install Terraform, First Download the Terraform Cli Utility for windows from terraforms official website: :<https://www.terraform.io/downloads.html>

The image shows a web browser window displaying the Terraform installation page for Windows. The page is titled "Windows" and "Binary download". It offers two download options: "386" (Version: 1.9.5) and "AMD64" (Version: 1.9.5). The "AMD64" option is selected. Below the download buttons, there is a "Linux" section with a "Package manager" subsection, listing various operating systems like Ubuntu/Debian, CentOS/RHEL, Fedora, Amazon Linux, and Homebrew. A terminal window snippet shows the commands to install Terraform on Linux: `wget -O- https://apt.releases.hashicorp.com/gpg | sudo gpg --dearmor -o /usr/share/keyrings/hashicorp-archive-keyring.gpg`, `sudo apt update`, and `sudo apt install terraform`.

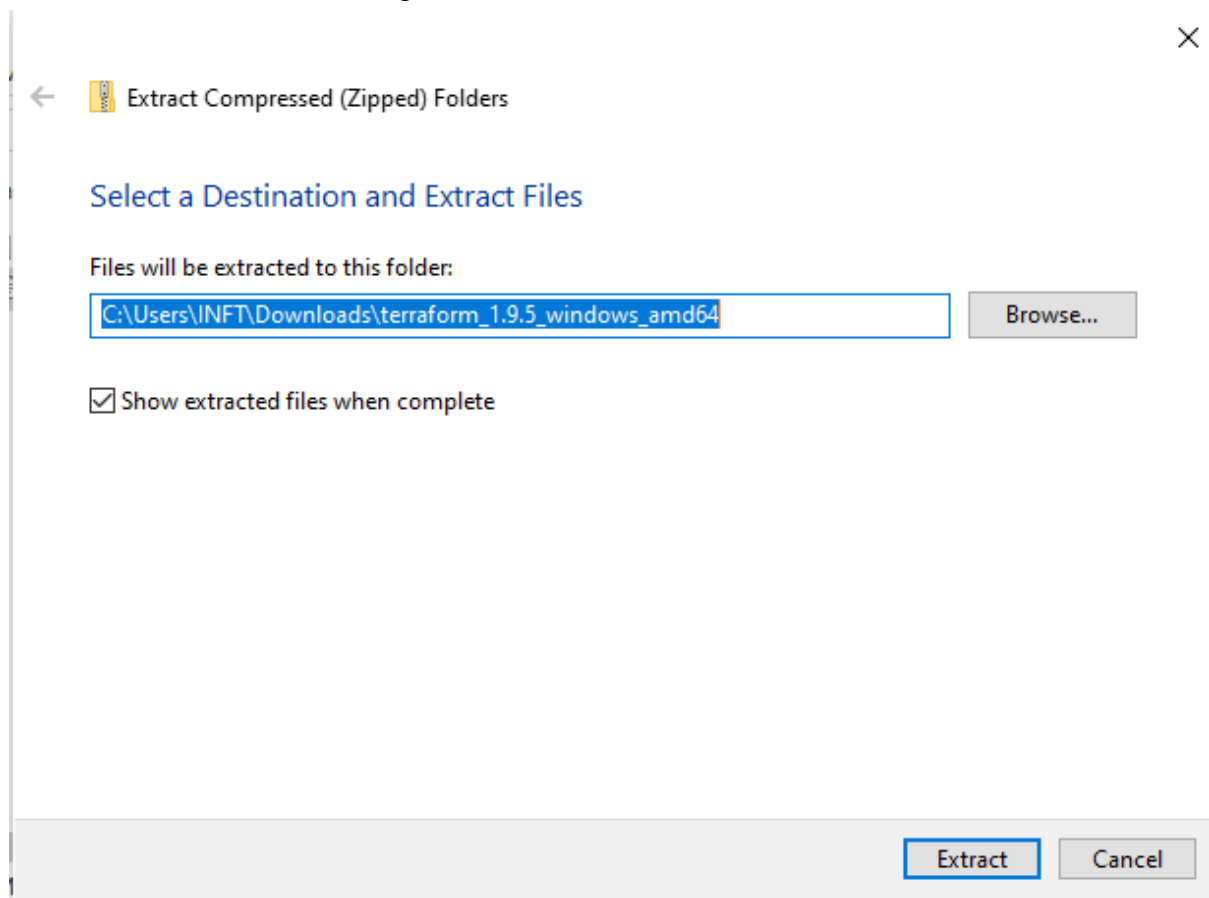
Below the browser window, a Windows File Explorer window is open, showing the "Downloads" folder. The file list includes:

Name	Date modified	Type	Size
terraform_1.9.5_windows_amd64	22-08-2024 14:12	Compressed (zipp...	26,721 KB
AIDS_Exp5 (1)	22-08-2024 11:33	WPS PDF Docume...	305 KB
AIDS_Exp5	22-08-2024 11:30	WPS PDF Docume...	304 KB
AIDS_Exp5	22-08-2024 11:30	OpenDocument T...	339 KB

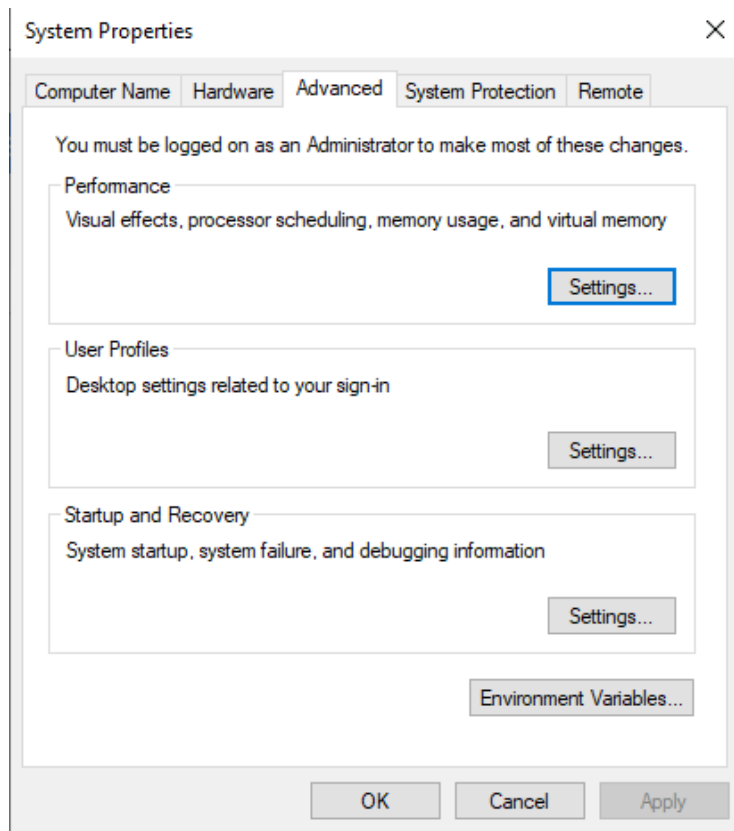
2:Compress the zip file.



2: Extract the downloaded setup file Terraform.exe.



4: Set the System path for Terraform in Environment Variables.



Environment Variables

User variables for INFT

Variable	Value
OneDrive	C:\Users\INFT\OneDrive
Path	C:\Users\INFT\AppData\Local\Microsoft\WindowsApps;C:\Users\I...
TEMP	C:\Users\INFT\AppData\Local\Temp
TMP	C:\Users\INFT\AppData\Local\Temp

New... Edit... Delete

System variables

Variable	Value
ComSpec	C:\Windows\system32\cmd.exe
DriverData	C:\Windows\System32\Drivers\DriverData
NUMBER_OF_PROCESSORS	8
OS	Windows_NT
Path	C:\Program Files (x86)\Common Files\Oracle\Java\javapath;C:\Win...
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC
PROCESSOR_ARCHITECTURE	AMD64

New... Edit... Delete

OK Cancel

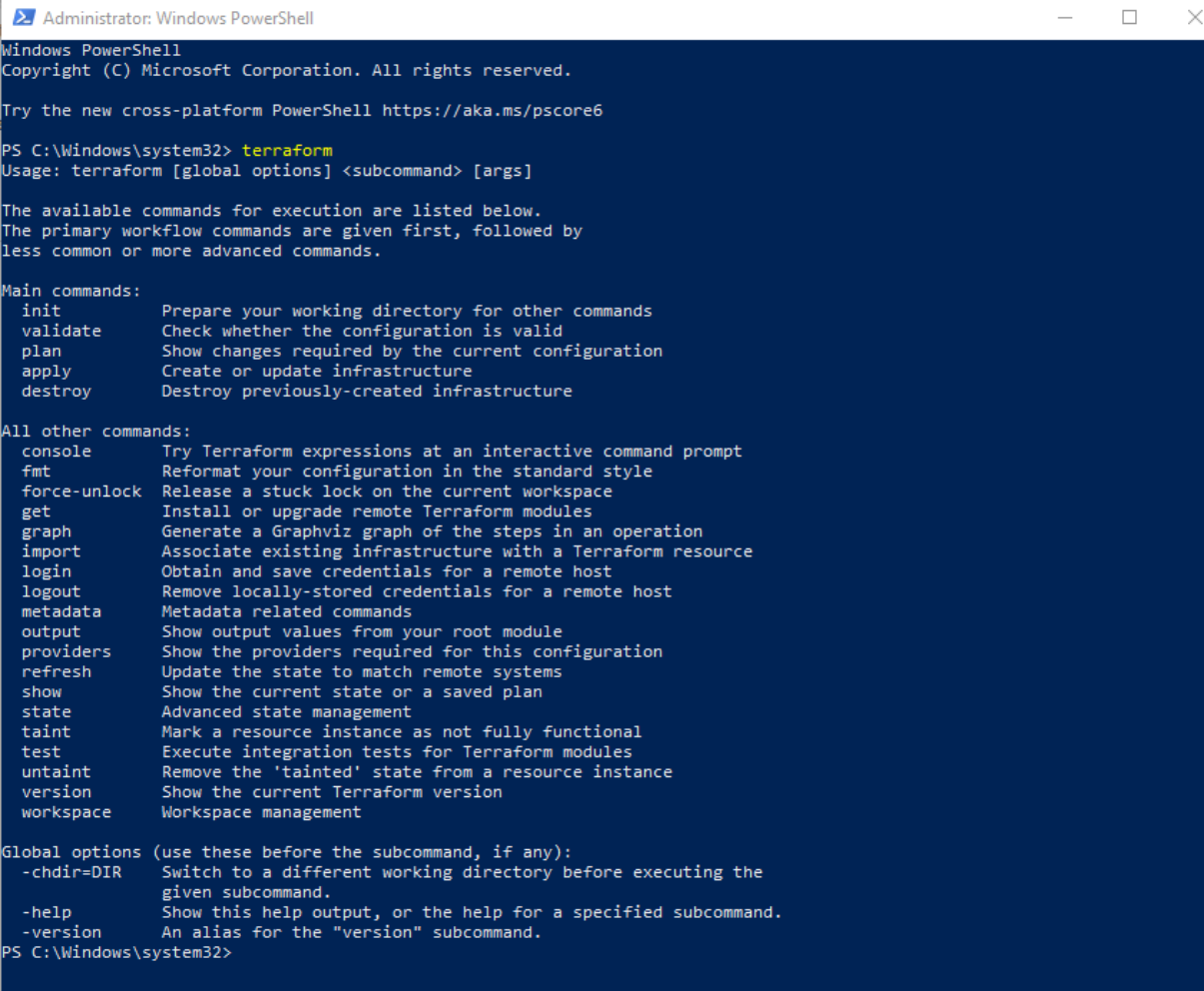
Edit User Variable

Variable name: Path

Variable value: C:\terraform\

Browse Directory... Browse File... OK Cancel

5 : Open Terraform in PowerShell and check its functionality



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

PS C:\Windows\system32> terraform
Usage: terraform [global options] <subcommand> [args]

The available commands for execution are listed below.
The primary workflow commands are given first, followed by
less common or more advanced commands.

Main commands:
  init          Prepare your working directory for other commands
  validate      Check whether the configuration is valid
  plan          Show changes required by the current configuration
  apply         Create or update infrastructure
  destroy       Destroy previously-created infrastructure

All other commands:
  console       Try Terraform expressions at an interactive command prompt
  fmt           Reformat your configuration in the standard style
  force-unlock  Release a stuck lock on the current workspace
  get           Install or upgrade remote Terraform modules
  graph         Generate a Graphviz graph of the steps in an operation
  import        Associate existing infrastructure with a Terraform resource
  login         Obtain and save credentials for a remote host
  logout        Remove locally-stored credentials for a remote host
  metadata      Metadata related commands
  output        Show output values from your root module
  providers     Show the providers required for this configuration
  refresh       Update the state to match remote systems
  show          Show the current state or a saved plan
  state         Advanced state management
  taint         Mark a resource instance as not fully functional
  test          Execute integration tests for Terraform modules
  untaint       Remove the 'tainted' state from a resource instance
  version       Show the current Terraform version
  workspace     Workspace management

Global options (use these before the subcommand, if any):
  -chdir=DIR    Switch to a different working directory before executing the
                given subcommand.
  -help         Show this help output, or the help for a specified subcommand.
  -version      An alias for the "version" subcommand.

PS C:\Windows\system32>
```