Experiment 5

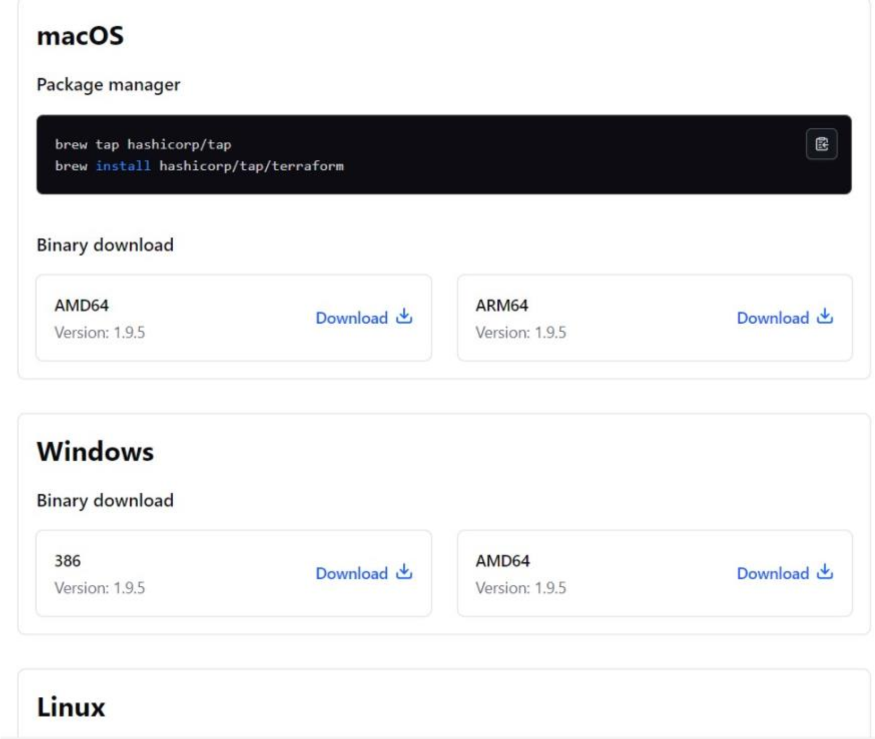
A) Installation and Configuration of Terraform in Windows

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.



macOS

Package manager

```
brew tap hashicorp/tap
brew install hashicorp/tap/terraform
```

Binary download

AMD64
Version: 1.9.5
Download

ARM64
Version: 1.9.5
Download

Windows

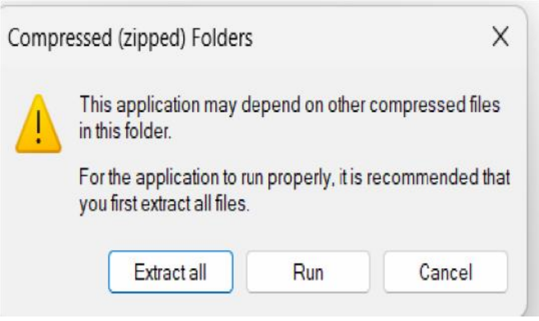
Binary download

386
Version: 1.9.5
Download

AMD64
Version: 1.9.5
Download

Linux

Step 2: Extract the downloaded setup file Terraform.exe in

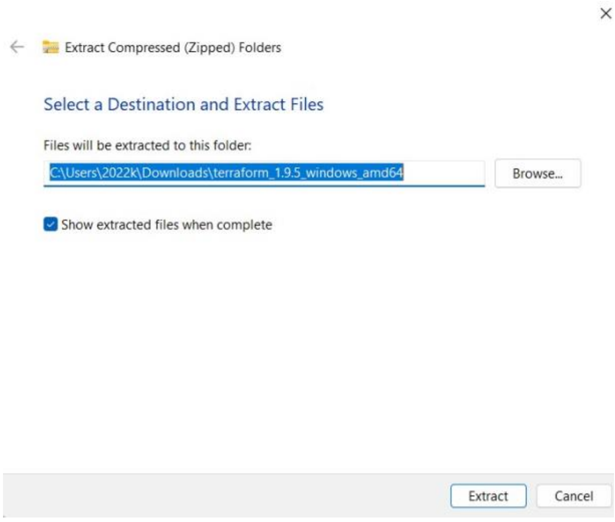


Compressed (zipped) Folders

This application may depend on other compressed files in this folder.

For the application to run properly, it is recommended that you first extract all files.

C:\Terraform directory



Extract Compressed (Zipped) Folders

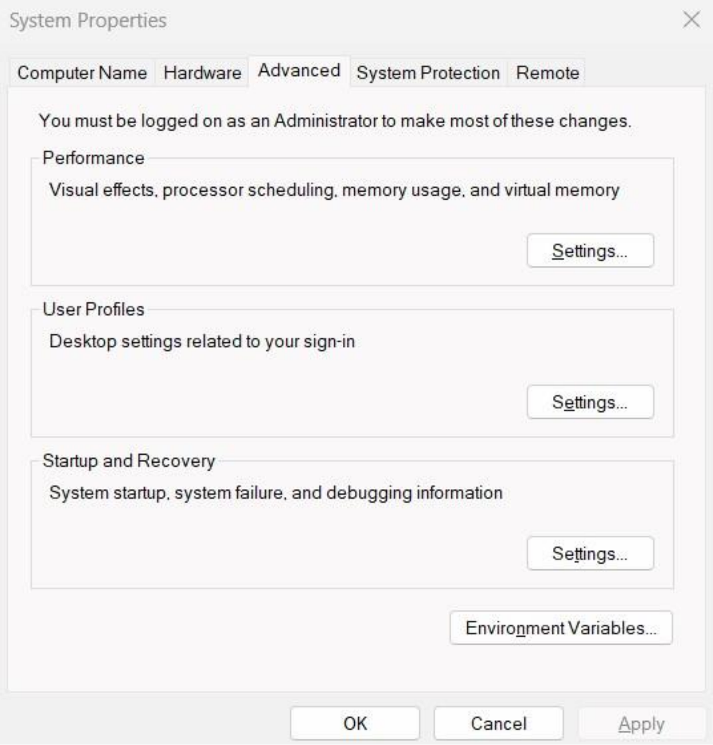
Select a Destination and Extract Files

Files will be extracted to this folder:

C:\Users\2022k\Downloads\terraform_1.9.5_windows_amd64

☑ Show extracted files when complete

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



System Properties

Computer Name | Hardware | Advanced | System Protection | Remote

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

Performance

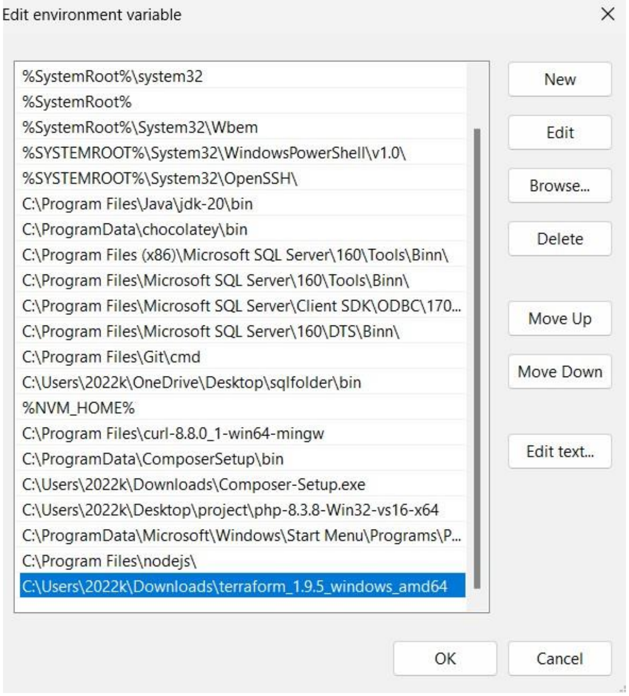
Visual effects, processor scheduling, memory usage, and virtual memory

User Profiles

Desktop settings related to your sign-in

Startup and Recovery

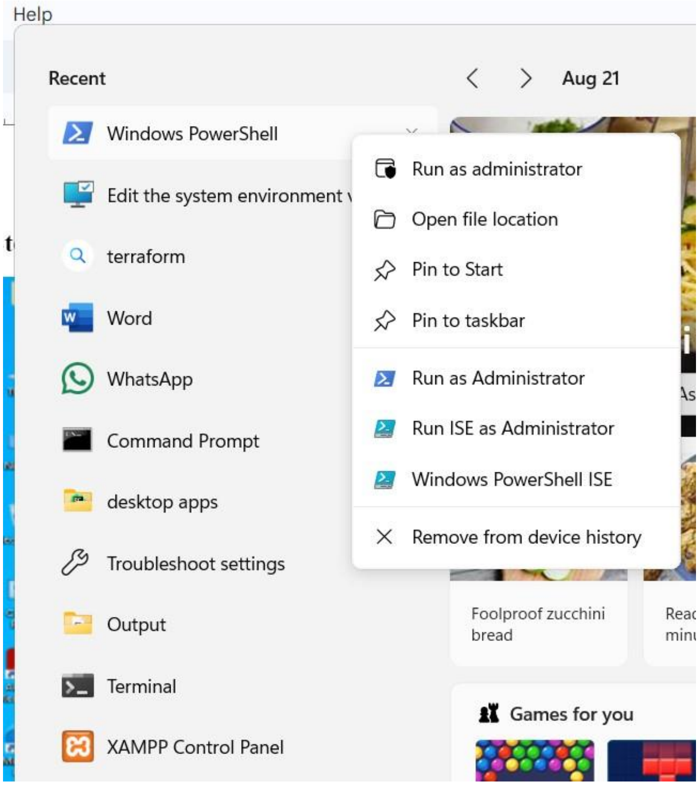
System startup, system failure, and debugging information



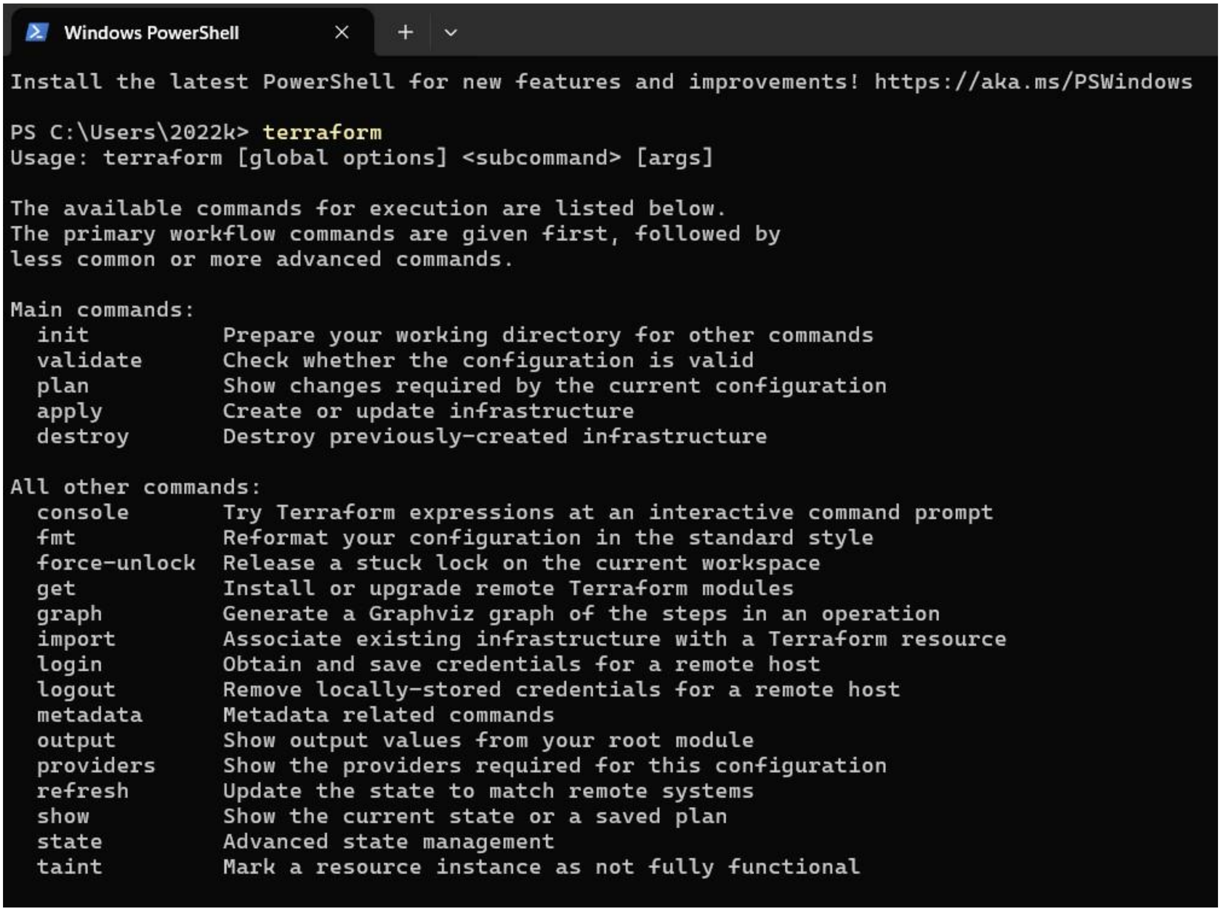
Edit environment variable

```
%SystemRoot%\system32
%SystemRoot%
%SystemRoot%\System32\Wbem
%SYSTEMROOT%\System32\WindowsPowerShell\v1.0\
%SYSTEMROOT%\System32\OpenSSH\
C:\Program Files\Java\jdk-20\bin
C:\ProgramData\chocolatey\bin
C:\Program Files (x86)\Microsoft SQL Server\160\Tools\Binn\
C:\Program Files\Microsoft SQL Server\160\Tools\Binn\
C:\Program Files\Microsoft SQL Server\Client SDK\ODBC\170...
C:\Program Files\Microsoft SQL Server\160\DTS\Binn\
C:\Program Files\Git\cmd
C:\Users\2022k\OneDrive\Desktop\sqlfolder\bin
%NVM_HOME%
C:\Program Files\curl-8.8.0_1-win64-mingw
C:\ProgramData\ComposerSetup\bin
C:\Users\2022k\Downloads\Composer-Setup.exe
C:\Users\2022k\Desktop\project\php-8.3.8-Win32-vs16-x64
C:\ProgramData\Microsoft\Windows\Start Menu\Programs\P...
C:\Program Files\nodejs\
C:\Users\2022k\Downloads\terraform_1.9.5_windows_amd64
```

Step 4: Open PowerShell with Admin Access



Step 5 : Open Terraform in PowerShell and check its functionality



```
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\2022k> 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
```