

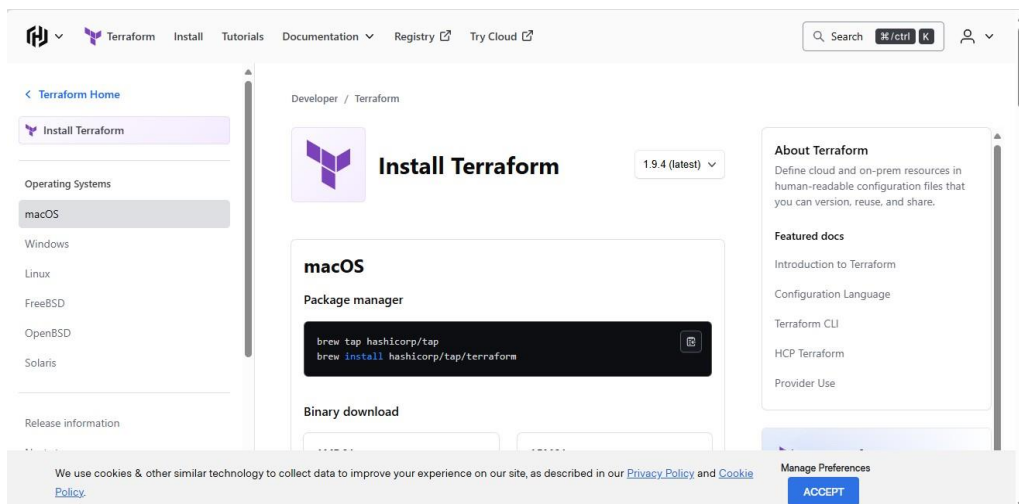
## Experiment No: 5

**Aim:** To understand terraform lifecycle, core concepts/terminologies and install it on a Window/Linux Machine.

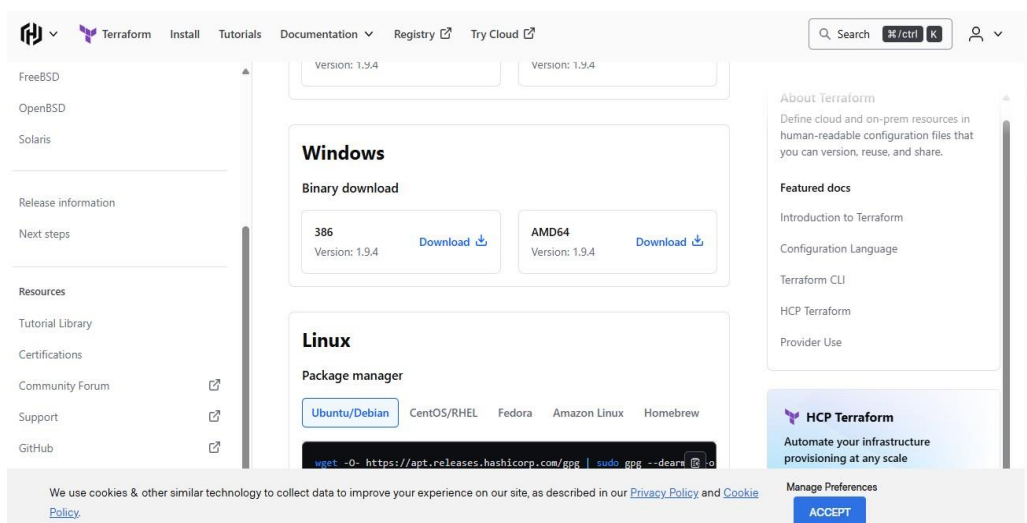
### Installation and Configuration Steps of Terraform in Windows:

#### Step 1: Download terraform

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

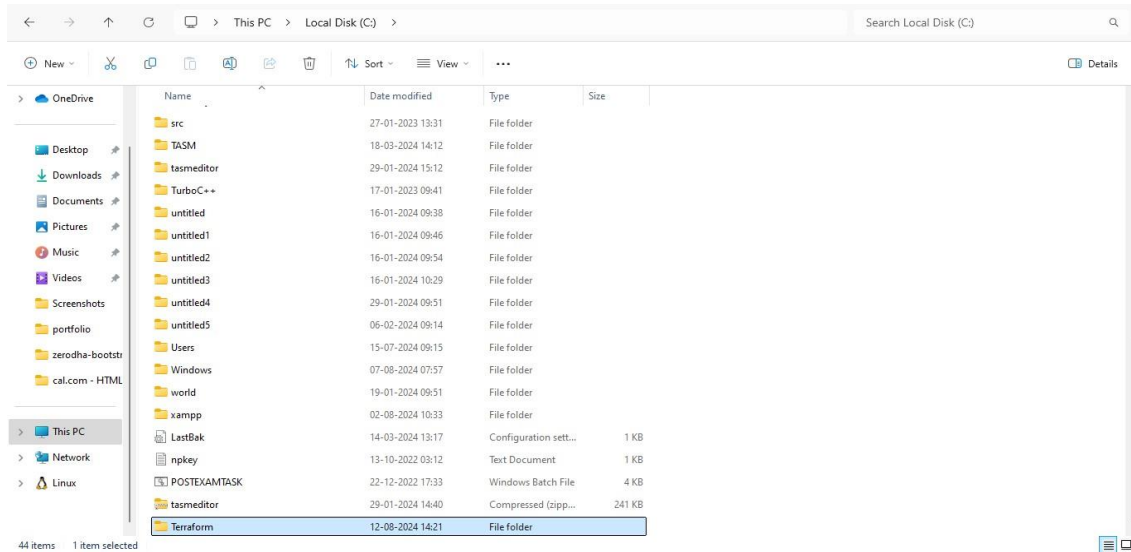


2) Select the Operating System Windows followed by either 32 bit or 64 bit based on your OS type.

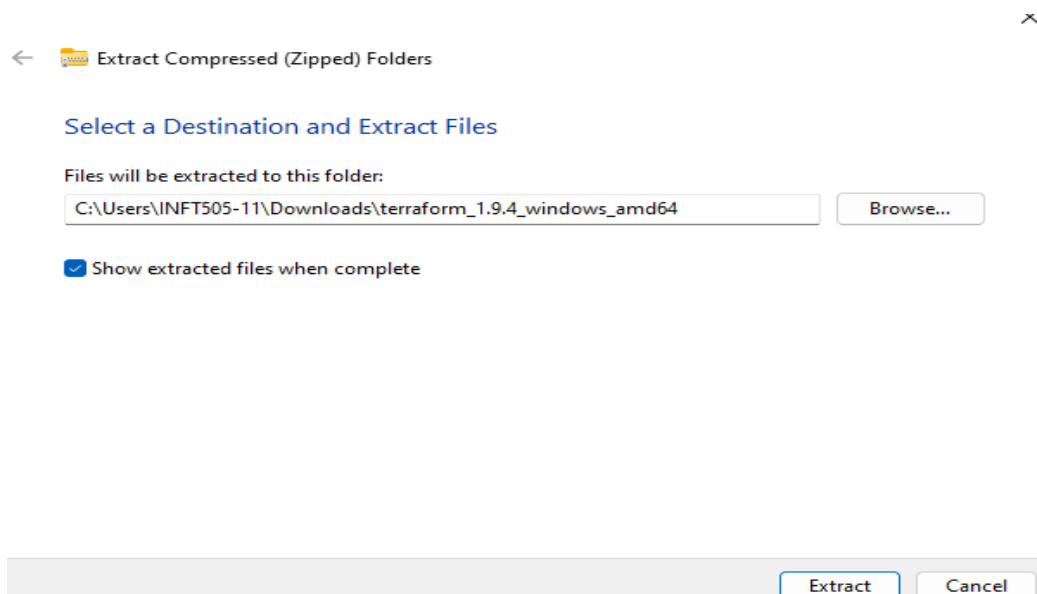


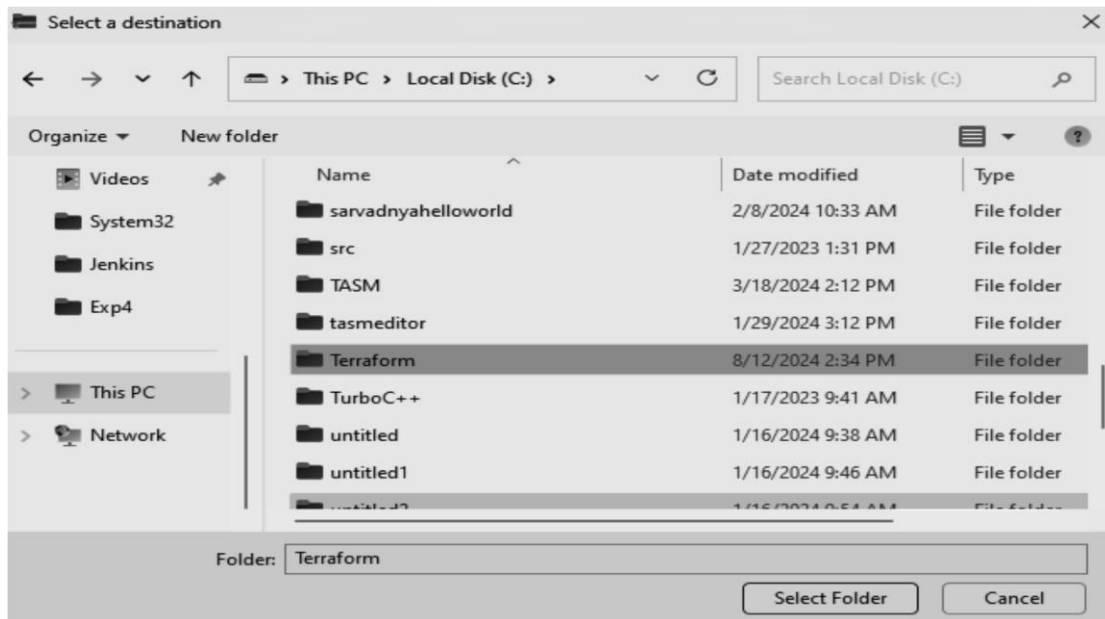
**Step 2:** Extract the downloaded setup file Terraform.exe in C:\Terraform Directory

1) Go to file manager -> Click on This PC -> move to C drive and create a new folder for example named terraform

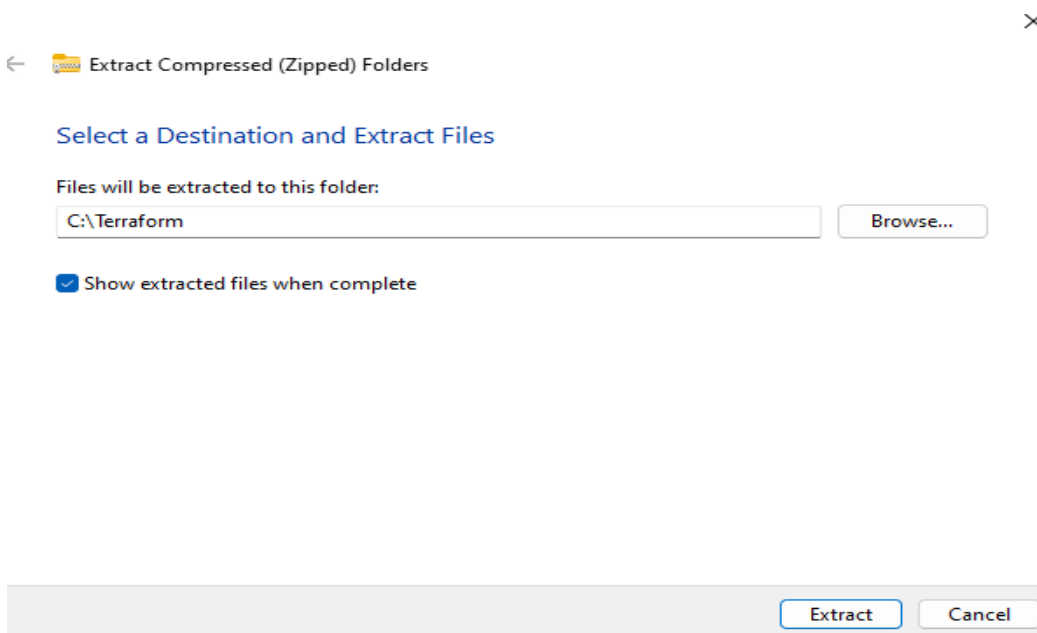


2) Got to location where main file is downloaded , right click on the file name and click on extract all while clicking on extract all it displays the location of the file to be saved , after extraction initially the destination of file to be extracted is not the folder which we have created earlier in previous steps , so to get the exact folder click on Browse and select it.

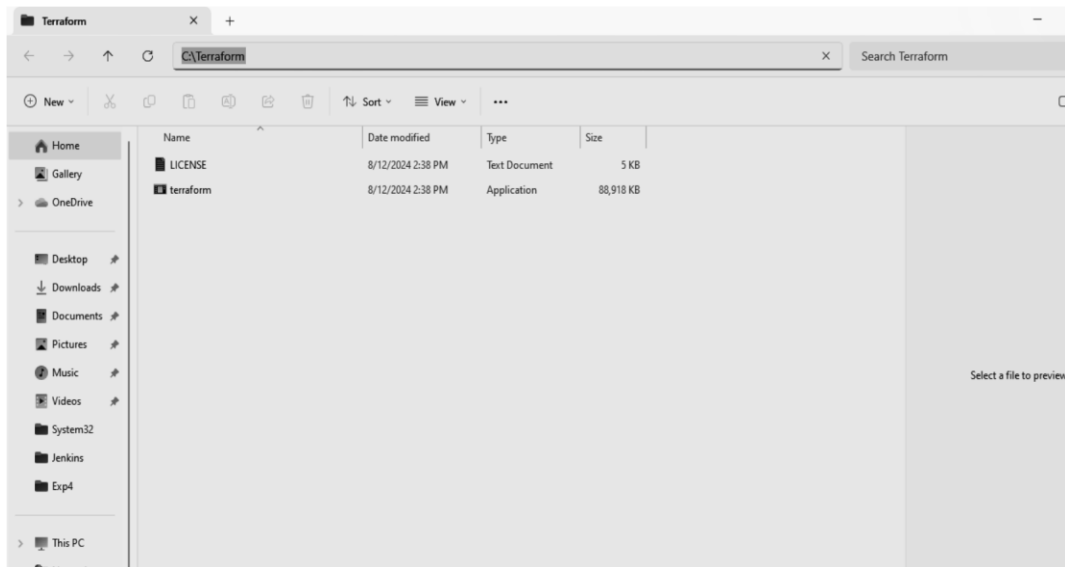




3) Click on extract Button.

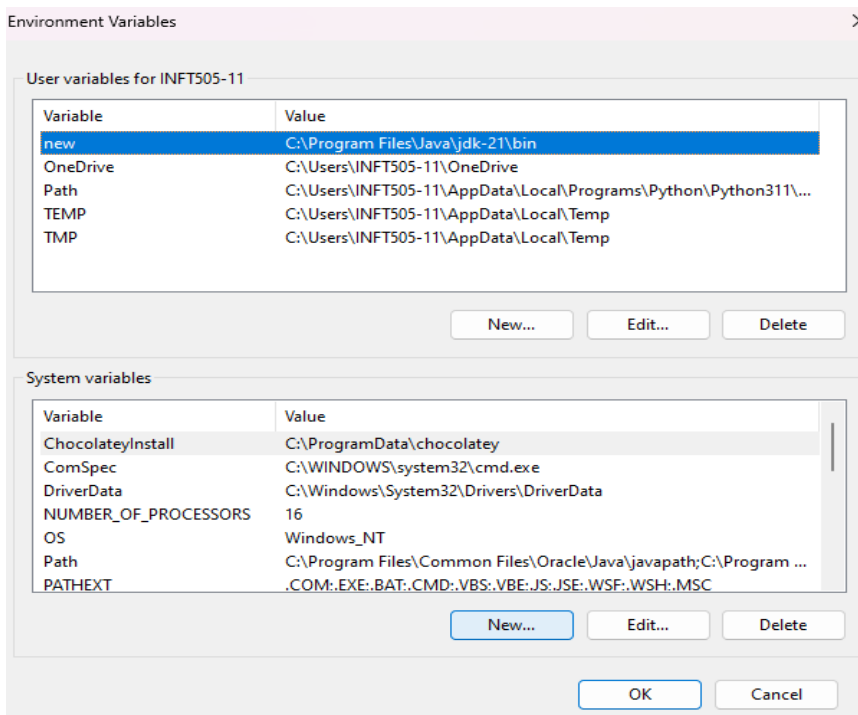


4) After extracting it will redirect to file manager copy the path which will be used for the further steps

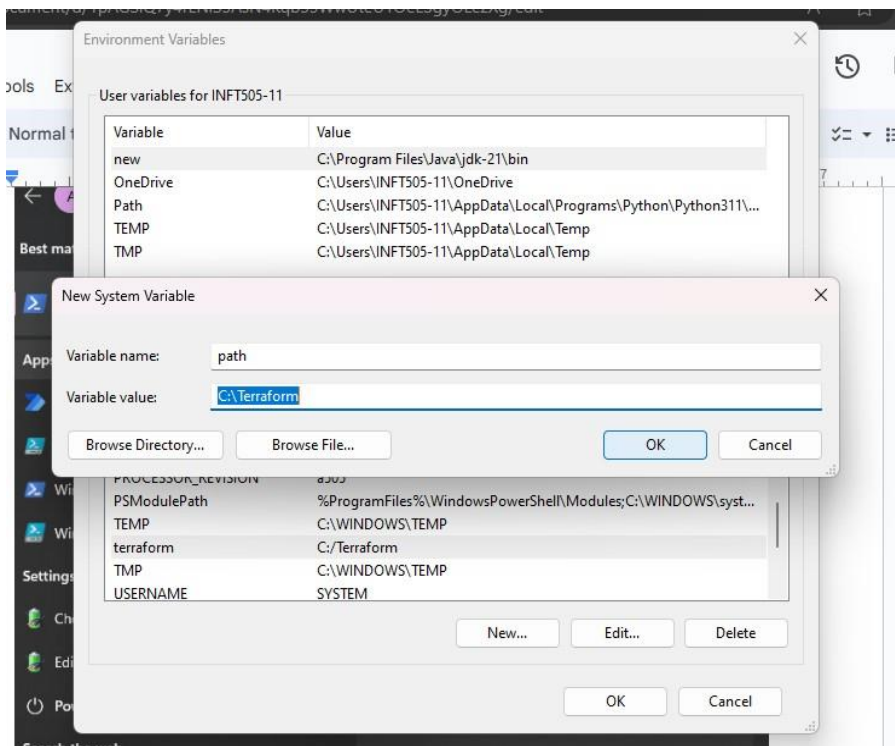


### Step 3: Set the System path for Terraform in Environment Variables

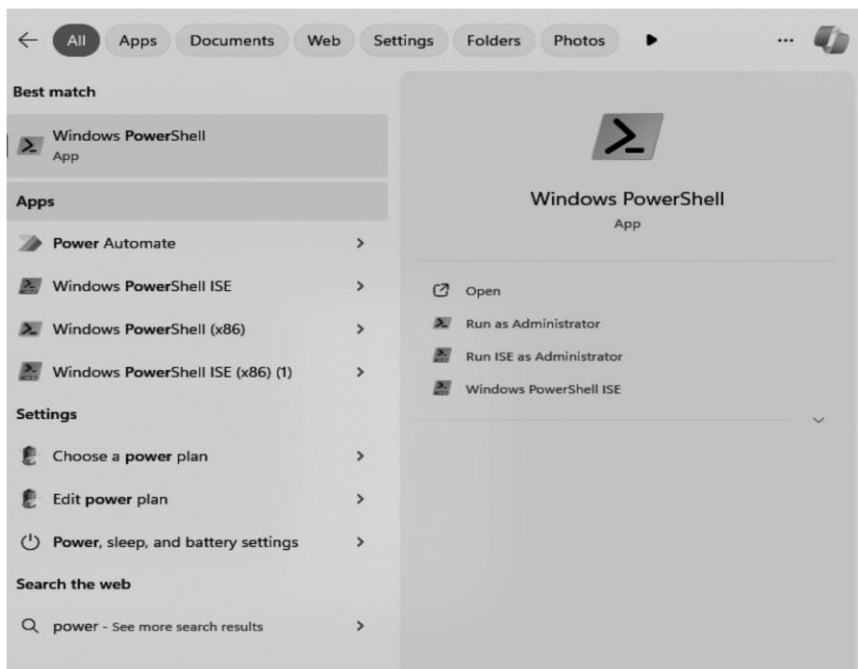
1) Search Environment Variable from search area in the Taskbar then Click on New under System Variables



2) Set the Variable name as path and paste the location of the folder which we copied in previous step after extraction process as the variable value .Click on Ok



#### Step 4: Open PowerShell with Admin Access



**Step 5 : Open Terraform in PowerShell and check its functionality**

```
PS C:\Users\INFT505-11> 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
```

If the case of any Errors, then please recheck or set the path of Terraform in Environment variable again.