

## EXPERIMENT NO. 05

**Aim: To understand terraform lifecycle, core concepts/terminologies and install it on Windows.**

### 1.Download and Install Terraform:

- If you haven't already, download Terraform from the official website.
- Install Terraform by extracting the downloaded zip file to a directory of your choice. Note the path where Terraform executable (**terraform.exe** on Windows) is located.

The screenshot displays the Terraform official website's installation page for Windows. The page is divided into three main sections: a left sidebar, a central content area, and a right sidebar. The left sidebar, titled 'Terraform Home', includes links to 'Install Terraform', 'Operating Systems' (macOS, Windows, Linux, FreeBSD, OpenBSD, Solaris), 'Release information', and 'Next steps'. The central content area is titled 'Windows' and features a 'Binary download' section with two options: '386' (Version: 1.9.4) and 'AMD64' (Version: 1.9.4), each with a 'Download' button. Below this is a 'Linux' section with a 'Package manager' subsection, listing 'Ubuntu/Debian', 'CentOS/RHEL', 'Fedora', 'Amazon Linux', and 'Homebrew'. A terminal window snippet shows the commands to install Terraform on Ubuntu/Debian. The right sidebar contains 'About Terraform' (defining cloud and on-prem resources), 'Featured docs' (Introduction to Terraform, Configuration Language, Terraform CLI, HCP Terraform, Provider Use), and 'HCP Terraform' (Automate your infrastructure provisioning at any scale). The footer includes a cookie notice and a 'Manage Preferences' button.

## 2.Find the Terraform Executable Path:

- After installation, locate the directory where Terraform executable (**terraform.exe**) is present. For example, it could be in **C:\terraform** or any other path you chose during installation.

## 3.Set Environment Variables:

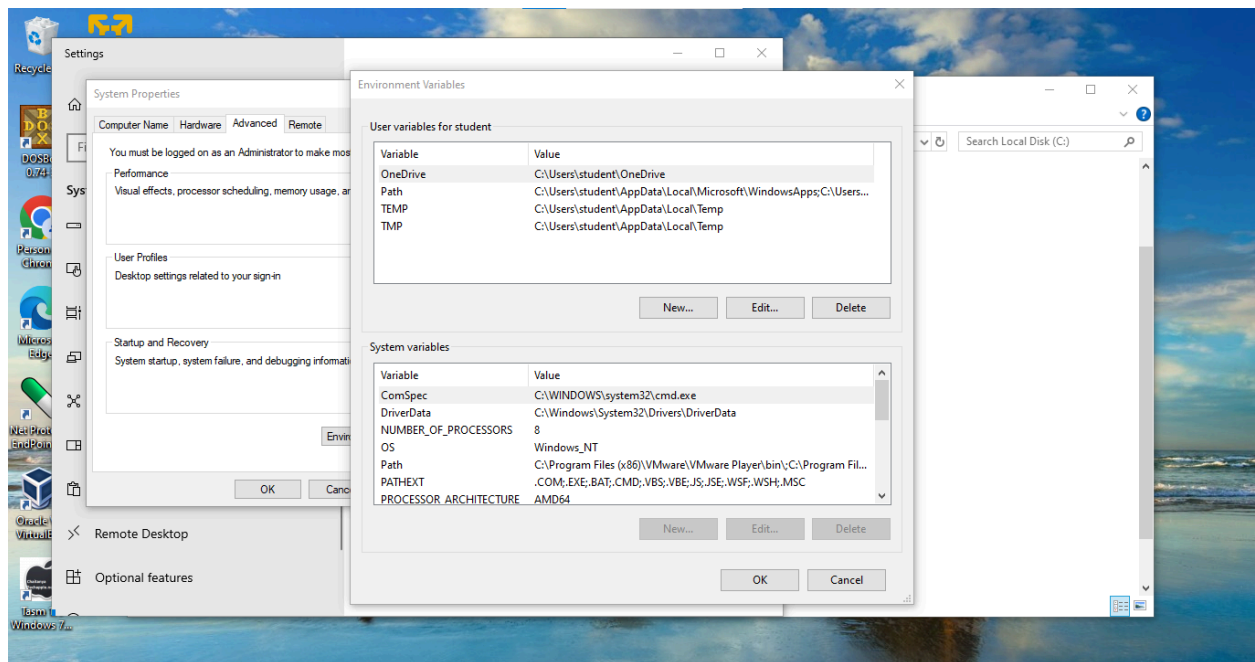
- Right-click on **This PC** or **Computer** on your desktop or in File Explorer, then click **Properties**.
- In the System window, click on **Advanced system settings** on the left-hand side.
- In the System Properties window, click on the **Environment Variables** button.

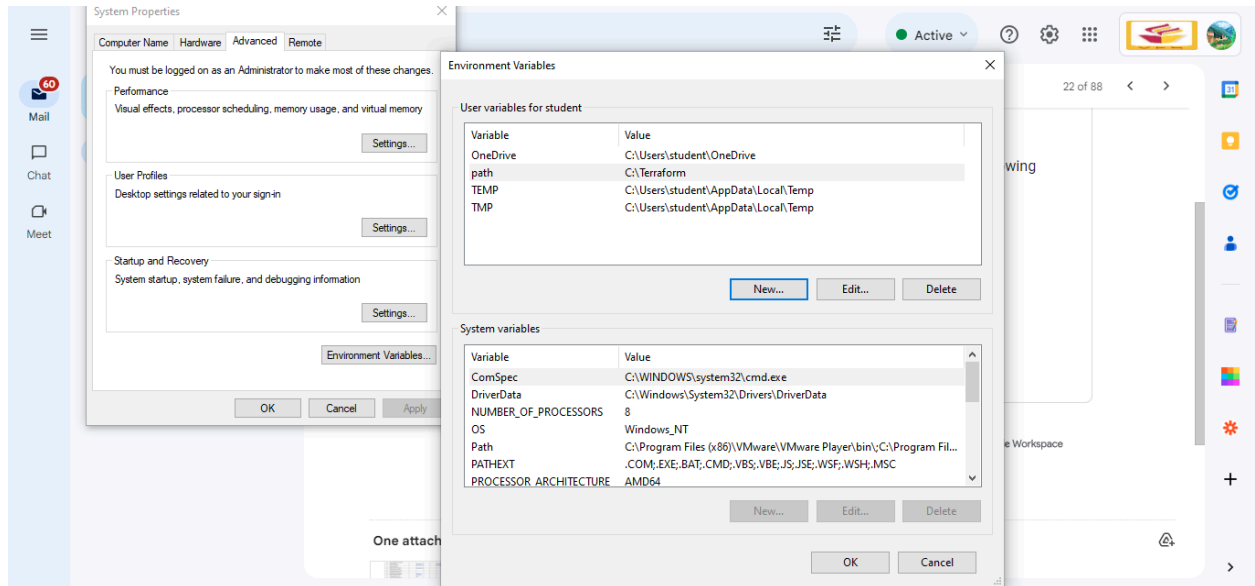
## 4.Edit System Environment Variables:

- In the Environment Variables window (System Properties), under the section **System Variables**, find and select the variable named **Path**, then click **Edit**.

## 5.Add Terraform to Path:

- In the Edit Environment Variable window, click **New** to add a new entry.
- Enter the path to the directory where Terraform executable (**terraform.exe**) is located. For example, if Terraform is installed in **C:\terraform**, add **C:\terraform** to the list.





## 6. Verify Installation:

- Open a new command prompt (to ensure it picks up the updated environment variables).
- Type `terraform --version` and press **Enter**. You should see the Terraform version information printed on the screen if the path configuration was successful.

If PowerShell is unable to recognize the `terraform` command, even though you've installed Terraform. This issue typically occurs when the directory containing the Terraform executable is not included in the `PATH` environment variable that PowerShell is using.

To resolve this issue, you need to add the directory containing the Terraform executable to your PowerShell session's `PATH` variable.

### Set the PATH Variable Temporarily for the Current Session:

- In PowerShell, you can set the `PATH` variable for the current session using the following command:  
powershell  
Copy code  
`$env:PATH += ";C:\Terraform"`

```
PS C:\Users\student> $env:PATH += ";C:\Terraform"
>>
PS C:\Users\student> terraform --version
Terraform v1.9.4
on windows_amd64
PS C:\Users\student> █
```