Install terraform on Ubuntu 20.04, CentOS 8, MacOS, Windows 10, Fedora 33, Red hat 8 and Solaris 11

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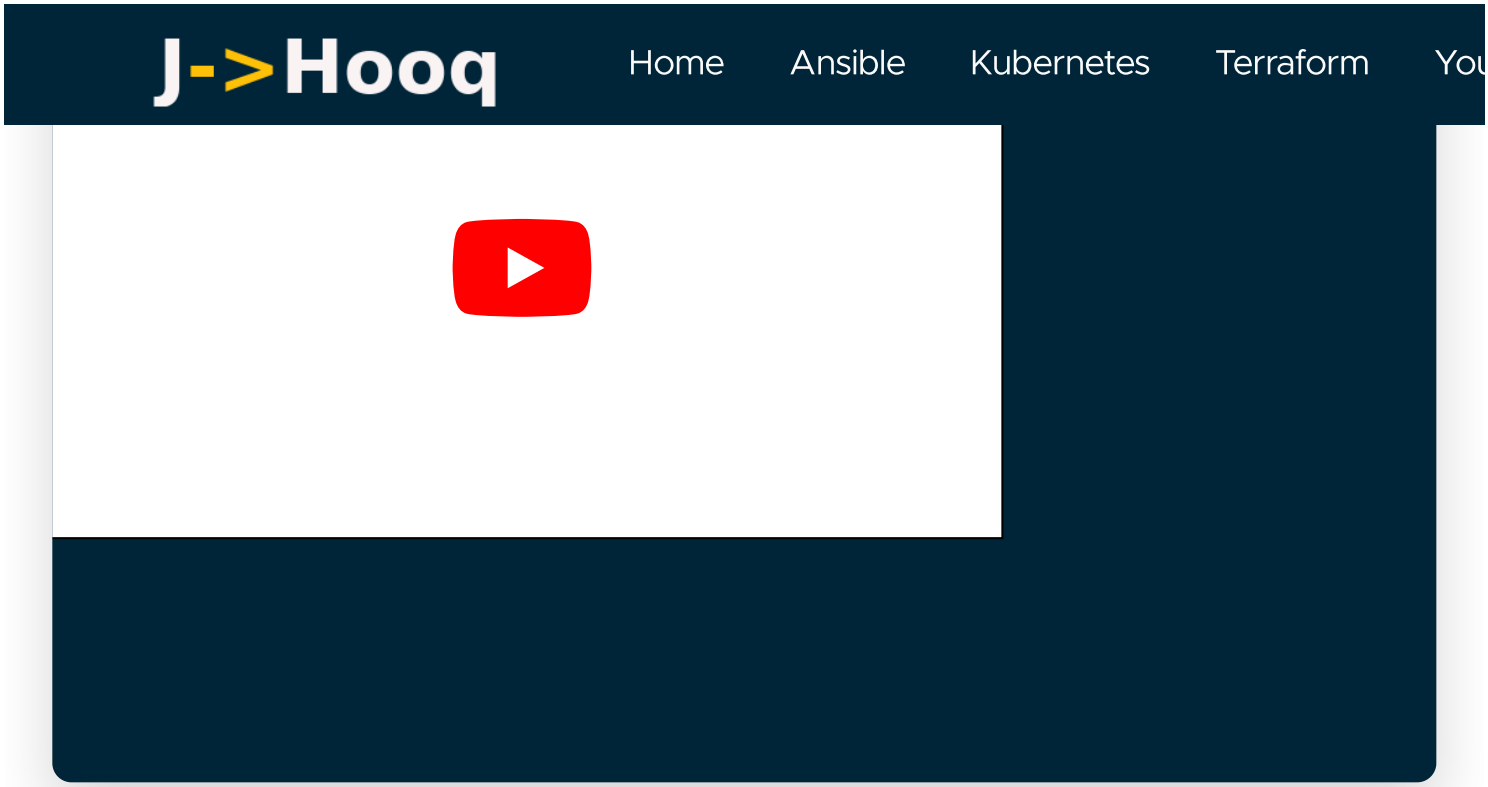
In this guide, we will focus on *Installation of Terraform* on a various operating system such as Ubuntu 20.04, CentOS 8, Fedora 33, Red Hat 8, and Solaris.

1. Install Terraform on Ubuntu 20.04, CentOS 8, Fedora 33, Red Hat 8 or Solaris
2. Install Terraform on Windows 10
3. Install Terraform on MacOS

Later we are also going to see *How to Upgrade Terraform using tfenv?*

4. Upgrade Terraform using *tfenv*
5. Upgrade Terraform to Specific version using *tfenv*
6. Uninstall the Terraform



1. Installing Terraform on Ubuntu 20.04, CentOS 8, Fedora 33, Red Hat 8, or Solaris

The instructions and command for installing Terraform on `Ubuntu 20.04` OR `CentOS 8` OR `Fedora 33|32|31` is almost same. You only need to pay attention to which version of the host OS you are choosing. Is it 32 bit or 64 Bit?

1.1 Install the Terraform using official Package distribution

Ubuntu

1. Update *apt-get* package manager

2. Install official hashicorp repository

```bash
curl -fsSL https://apt.releases.hashicorp.com/gpg | sudo apt-key add -
```

```bash
sudo apt-add-repository "deb [arch=amd64] https://apt.releases.hashicorp.com $(l
```

3. Install terraform

```bash
sudo apt-get update && sudo apt-get install terraform
```

Centos

1. Install yum-config-manager

```bash
sudo yum install -y yum-utils
```

2. Add official HashiCorp Linux repository

```bash
sudo yum-config-manager --add-repo https://rpm.releases.hashicorp.com/RHEL/hashi
```

```bash
sudo yum -y install terraform
```

Fedora

1. Install yum-config-manager

```bash
sudo dnf install -y dnf-plugins-core
```

2. Add official HashiCorp Linux repository

```bash
sudo dnf config-manager --add-repo https://rpm.releases.hashicorp.com/fedora/hasl
```

3. Install terraform

```bash
sudo dnf -y install terraform
```

1.2 The manual way to install Terraform

To install terraform manually you first need to download the terraform zip file from the hasicorp official website and to download zip file on the linux machine you need ***wget*** utility.

1. **Ubuntu 20.04 | 18.10 | 18.04** :

```bash
sudo apt-get install wget unzip
```

2. **CentOS 8 | 7** :

```bash
sudo yum install wget unzip
```

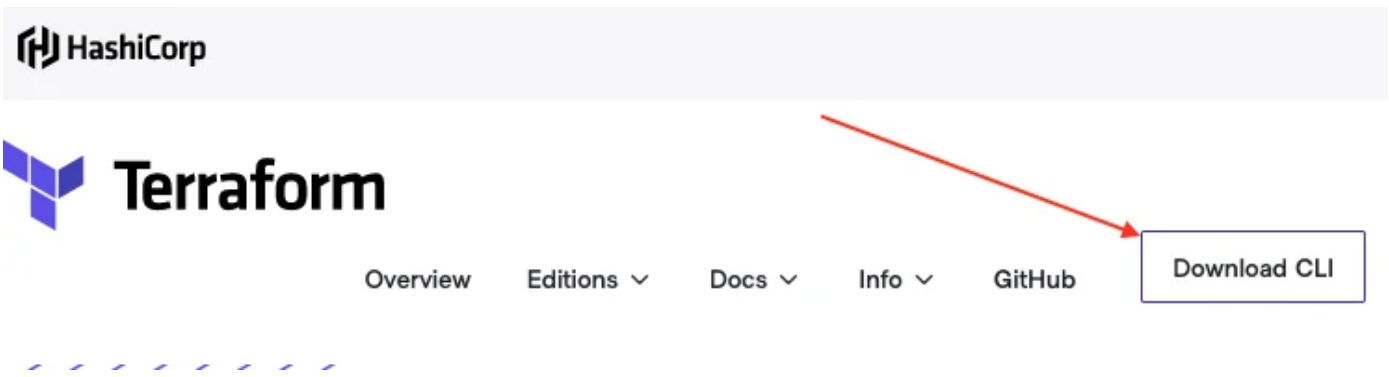
3. **Fedora 33 | 32 | 31** :

```
bash sudo dnf install wget
```

Download the terraform.zip file

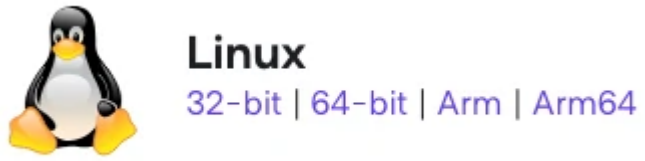
1. Goto Terrafrom.io

2. Click on Download CLI and for Ubuntu



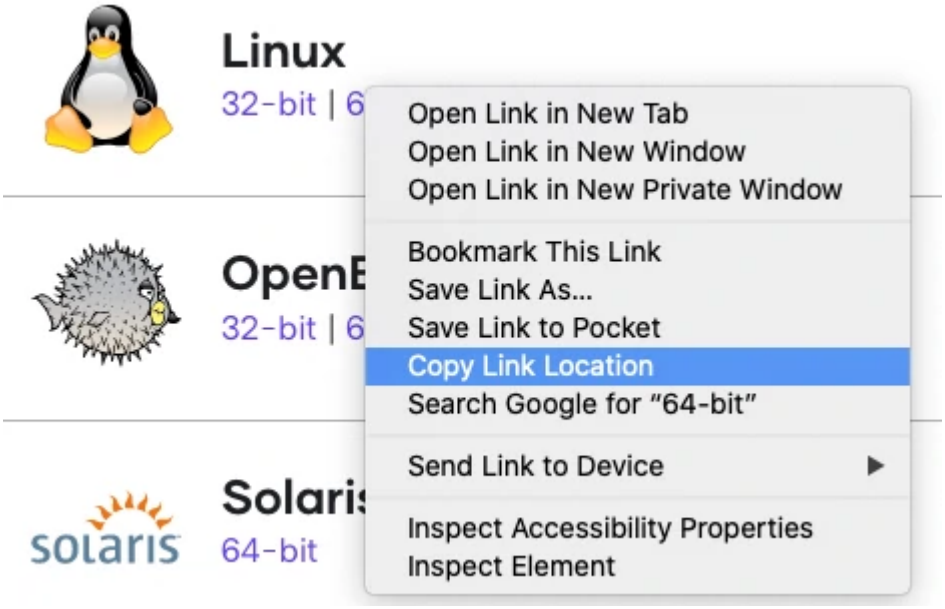
Terraform.io for terraform installation on Ubuntu

system architecture choose a suitable option (32-bit | 64-bit | Arm | Arm64). I choose the 64 bit



Download terrafrom for 64 bit Ubuntu

4. Right-click on **64-Bit** option then click on *Copy Link Location* (We need to copy the download link)



Copy Link location for downloading the terraform

5. Open **Terminal** and use the `wget` command followed by the link which you copied in the previous step.

6. After successful download you will see a `ZIP` file inside your directory

```
> ls
terraform_0.14.7_linux_amd64.zip
```

terraform ZIP

Unzip and move the file to '/usr/local/bin'

1. Unzip the terraform ZIP file

```bash
unzip terraform_0.14.7_linux_amd64.zip
```

2. After the UNZIP you should see a file named `terraform`

3. Move the file `terraform` to `/usr/local/bin`

```bash
sudo mv terraform /usr/local/bin/
```

Verify the Terraform installation on Ubuntu

You can confirm the installation by running the following command

It should return you with the version which you have installed. In my case, the version was - `Terraform v0.14.7`

```
Terraform v0.14.7
```

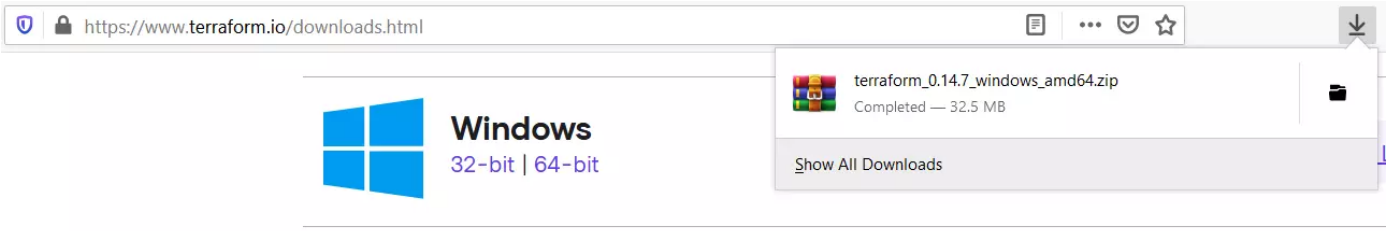
BASH

2. Installing Terraform on Windows 10

Download the terraform.zip file

1. Head over to Terrafrom.io and click on [Download CLI](https://www.terraform.io/downloads.html)

2. Scroll down the page and look for the Windows option. After that you need to select the version *32 Bit / 64 Bit*. (In my case I had 64 Bit Windows 10, so I choose 64 Bit option for download)

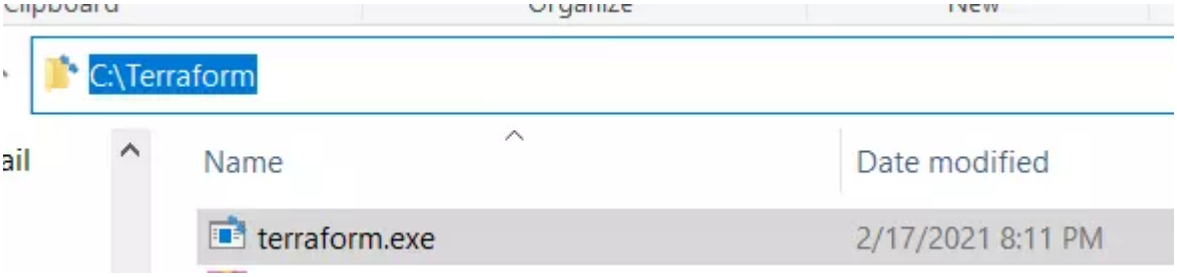


Download Terraform 64 bit for Windows 10

3. Once you click on either *32 Bit or 64 Bit*, it will download a ZIP file for you.

1. let's move the ZIP file to some good location. In my case, I moved the file to `C:\Terraform` (You can move the ZIP file to any location of your choice but always remember the path onto which you are moving the file)

2. Extract the Terraform ZIP file (*After the extraction it should have one file `terraform.zip`*)

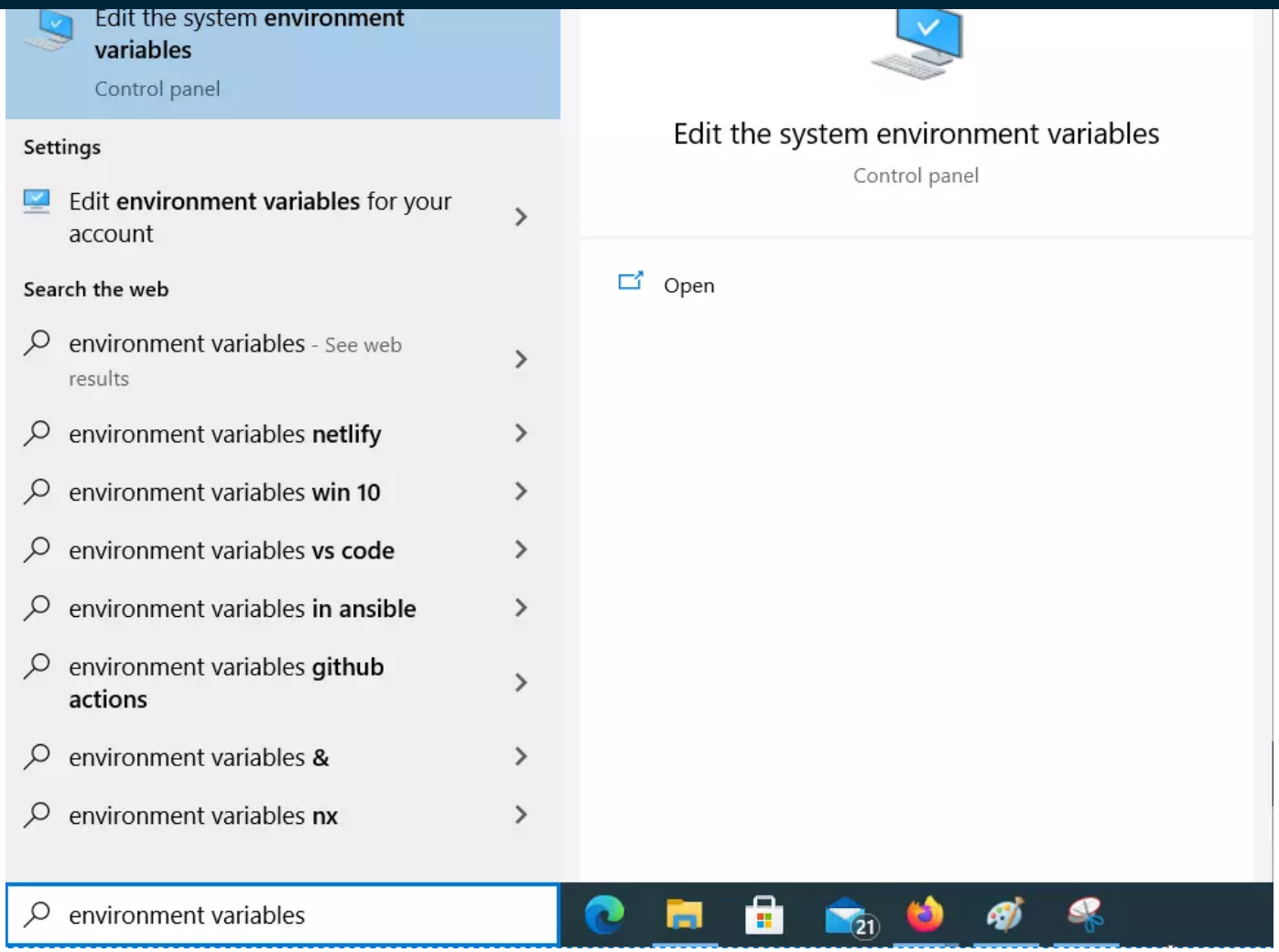


Path of terraform.exe after extracting it on windows 10

Add the Terraform directory PATH to Windows 10 environment variable

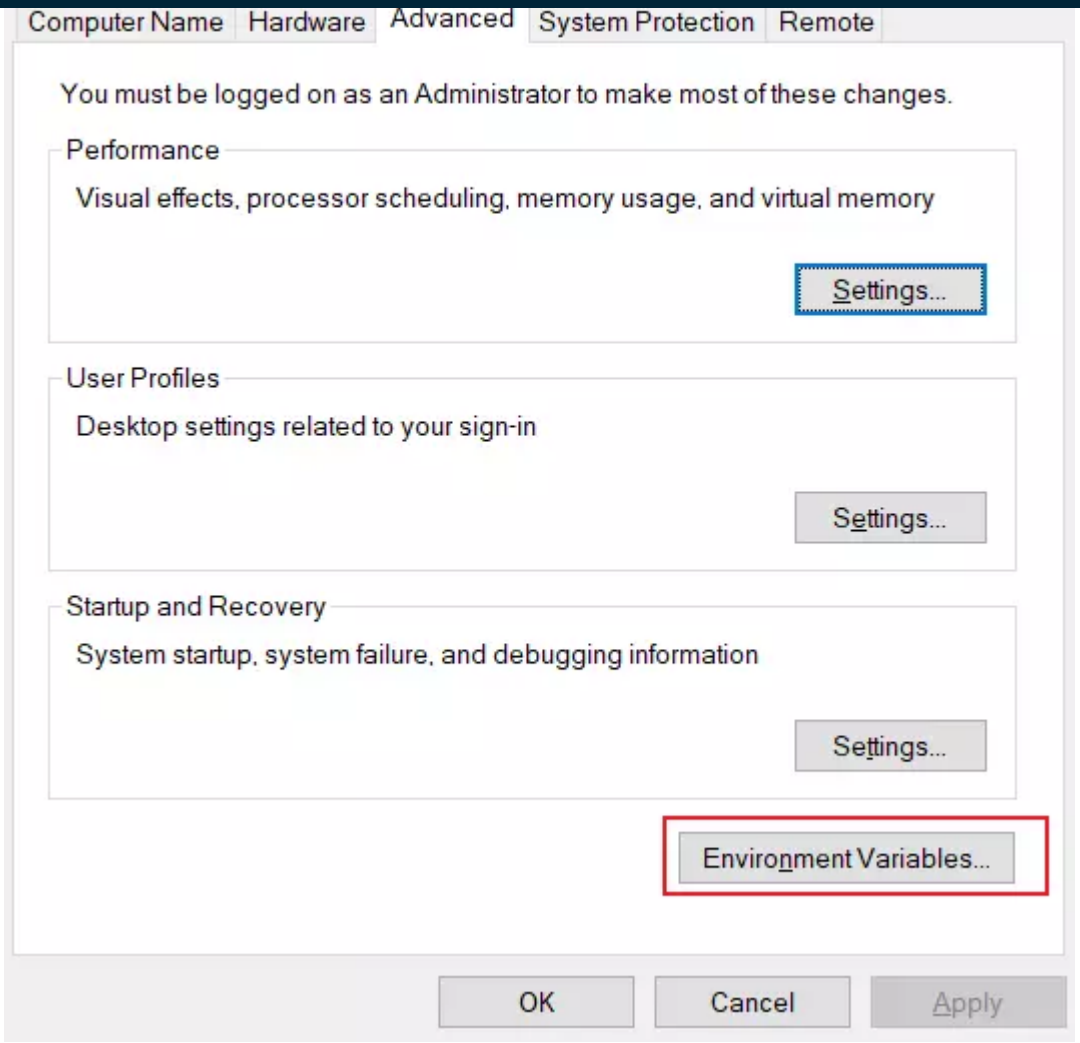
1. Copy the path of the folder where you placed `terraform.exe` (*In my case the path was `C:\Terraform`*)

2. Goto `Start Menu` and type in the `Environment Variables` in the search box and then click on `Open`



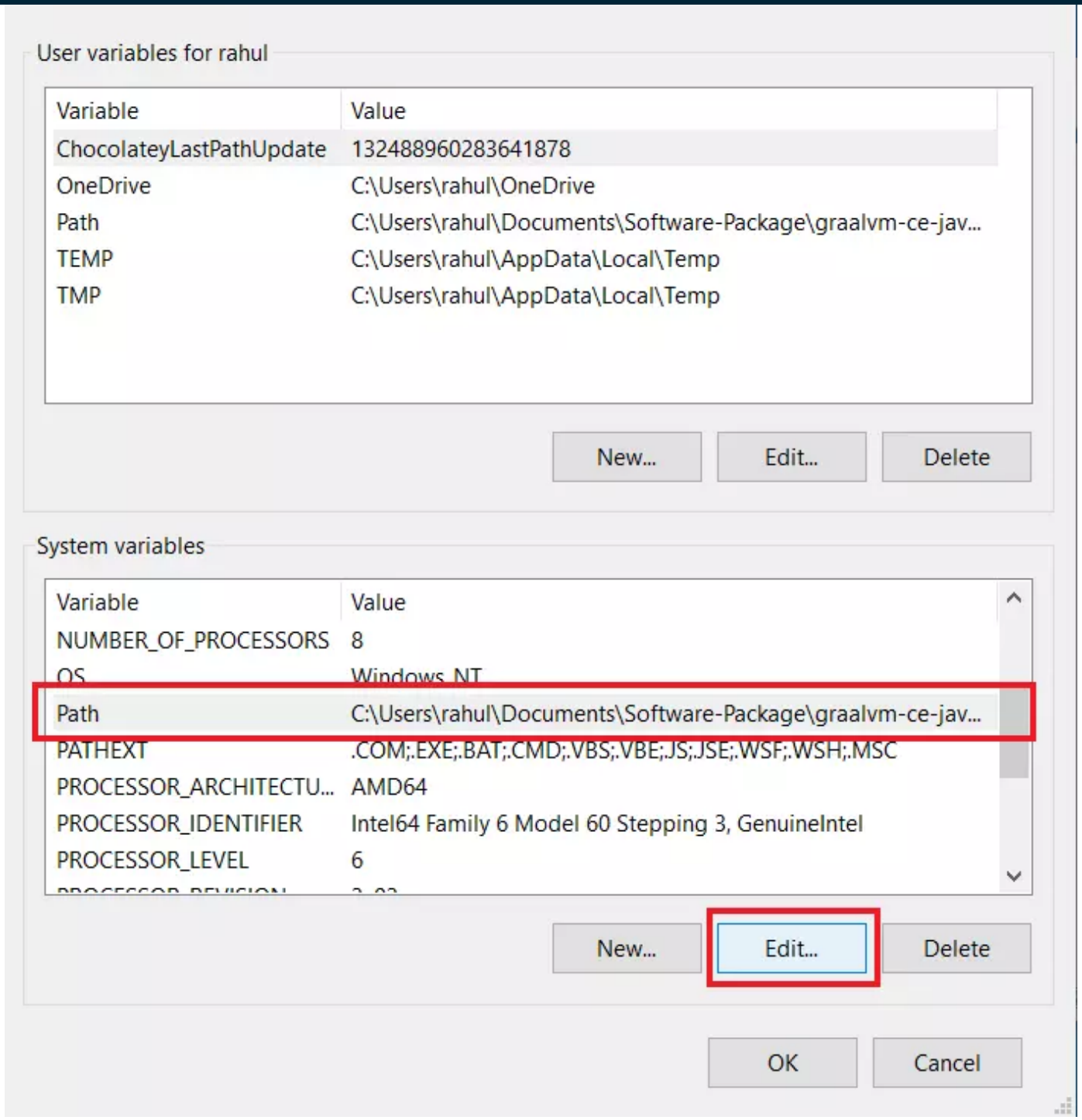
Update environment variable for terrform installation on windows 10

3. Once you open the environment variables window you need to click on `Environment Variables` (*You can find it at the bottom of the window*)



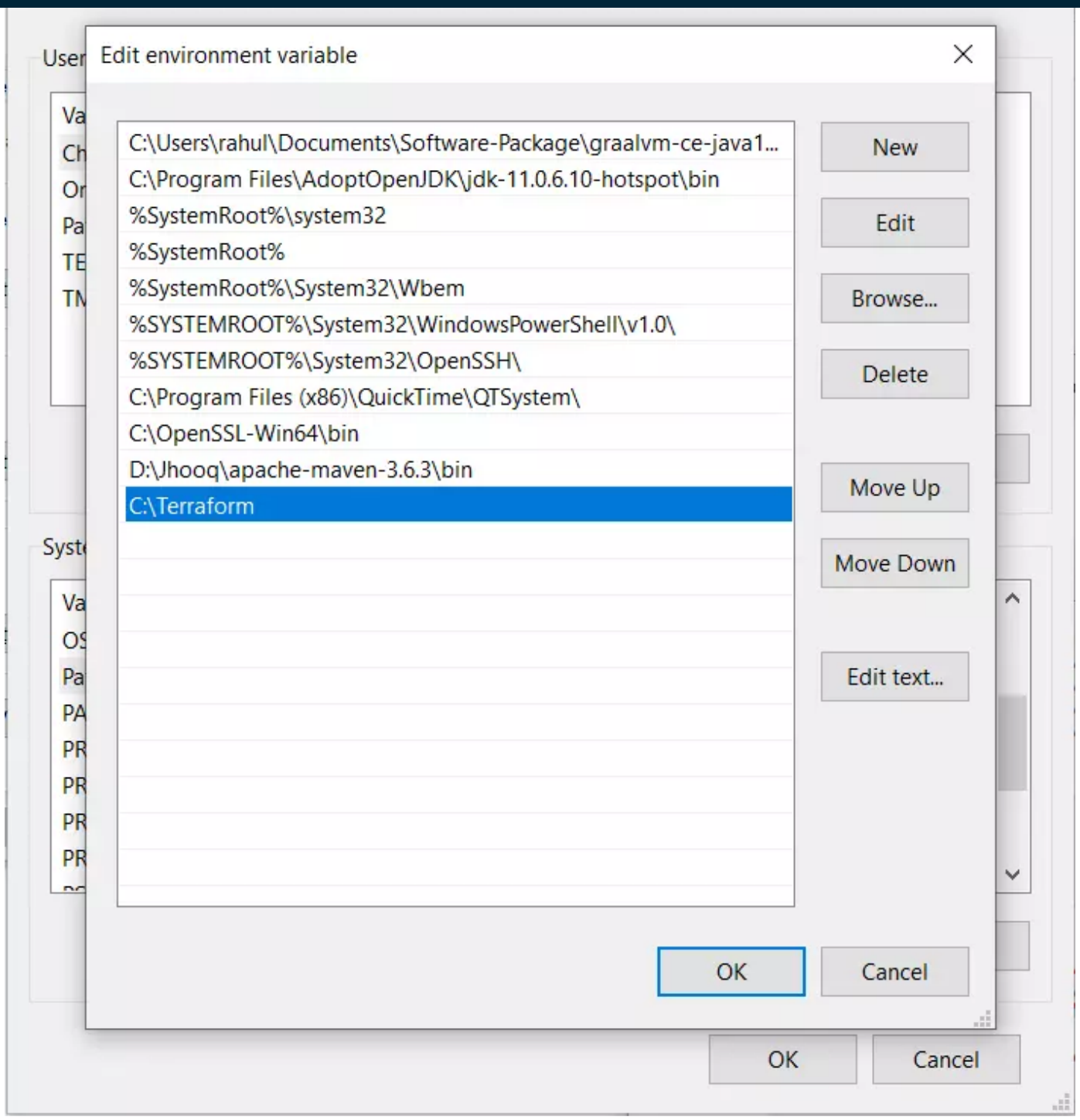
Open environment variables for installtion of terraform in windows 10

4. `Goto -> System Variables` then look for the system variable named `Path`



Edit PATH environment variable for installation of Terraform on Windows 10

5. Click on `Edit` and it should open another window. Click on `new` and past the path of your terraform directory

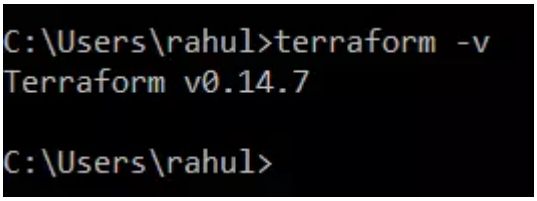


Add new Environment variable for terraform installation

Verify the Terraform installation on Windows 10

```BASH
terraform -v
```

If you have successfully installed the terraform then it should return you with the version number.



Terraform version command on windows 10 command prompt

3. Installing Terraform on MacOS

Install the Terraform on MacOS using ***brew***

This is one of my favorite ways to install any package on my macOS, but here are the steps for installing Terraform using HomeBrew

1. Use the following `Homebrew` command it will install the Terraform for you.

```BASH
brew install terraform
```

```BASH
==> Downloading https://homebrew.bintray.com/bottles/terraform-0.14.3.catalin
==> Downloading from https://d29vzk4ow07wi7.cloudfront.net/1172ae8f9a7ac2bed8
```

Install Terraform manually on macOS

1. You can download the Terrafrom.io from [Download CLI](https://www.terraform.io/downloads.html)

2. Extract the downloaded ZIP file

3. Move the ZIP file using the following command

```bash
sudo mv $HOME/Downloads/terraform /usr/local/bin/
```

Verify the Terraform installation on macOS

You can verify the Installation of Terraform on macOS by running the following command

```
terraform -v
```

It should return you with the version which you have installed onto your macOS

```bash
Terraform v0.14.3
```

4. Upgrade Terraform using tfenv

4.1 Install `tfenv` on Ubuntu 20.04 | CentOS 8 | Fedora 33 | Red hat 8 | Solaris 11

The installation of `tfenv` is pretty straight forward but you should at least know how to do `git clone` or you should be familiar with `git`.

1. Clone the `tfenv` repo

```bash
git clone https://github.com/tfutils/tfenv.git ~/.tfenv
```

2. Add ~/.tfenv/bin to your $PATH

```bash
echo 'export PATH="$HOME/.tfenv/bin:$PATH"' >> ~/.bash_profile
```

3. Create symlink for `~/.tfenv/bin/*`

```bash
mkdir -p ~/.local/bin/
```

```bash
. ~/.profile
```

```bash
which tfenv
```

4.2 Verify the `tfenv` installation

You can use the following command to verify the installation of `tfenv`

```
tfenv
```

It should return you with `version`

```
tfenv 2.2.0
Usage: tfenv <command> [<options>]

Commands:
   install       Install a specific version of Terraform
   use           Switch a version to use
   uninstall     Uninstall a specific version of Terraform
   list          List all installed versions
   list-remote   List all installable versions
   version-name  Print current version
   init          Update environment to use tfenv correctly.
```

4.3 List available version using $ tfenv list-remote

Run the following command to check the available version

```BASH
tfenv list-remote
```

You will see the following output based on the latest available version -

```BASH
0.15.0-beta1
0.15.0-alpha20210210
0.15.0-alpha20210127
0.15.0-alpha20210107
0.14.7
0.14.6
0.14.5
0.14.4
0.14.3
0.14.2
0.14.1
0.14.0
```

4.4 Install the latest version of Terraform

There is the default latest command provided by `tfenv` which will install the latest version of Terraform onto your system

```BASH
tfenv install latest
```

5. Upgrade to a specific version of Terraform

If you really want to upgrade to a specific version of Terraform then always keep the correct version of Terraform handy with you. (At the time of writing this article the latest stable version of Terraform is `0.14.7`)

```BASH
tfenv install 0.14.7
```

There is one more feature provided by the `tfenv`. If you want to upgrade to the latest version of some specific release for example you want the latest version from 0.14 release then you can do it by running -

```BASH
tfenv install latest:^0.14
```

5.1 Change terraform version (If you have already installed multiple versions of Terraform)

Let's say you have installed multiple version(0.14.7, 0.14.6, 0.14.5) of terraform and now you want to switch between the versions then use the following command to achieve that

```BASH
tfenv use 0.14.6
```

The above command will switch to terraform to version `0.14.6`

```bash
tfenv use
```

The above command will switch to version `0.14.7` because at the time of writing this article `0.14.7` is latest the version provided by terraform

6. Uninstall the Terraform

The uninstallation command of the Terraform is very simple -

```bash
tfenv uninstall 0.14.7
```

```bash
Uninstall Terraform v0.14.7
Terraform v0.14.7 is successfully uninstalled
```

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>
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