

Preparing for setup for Terraform

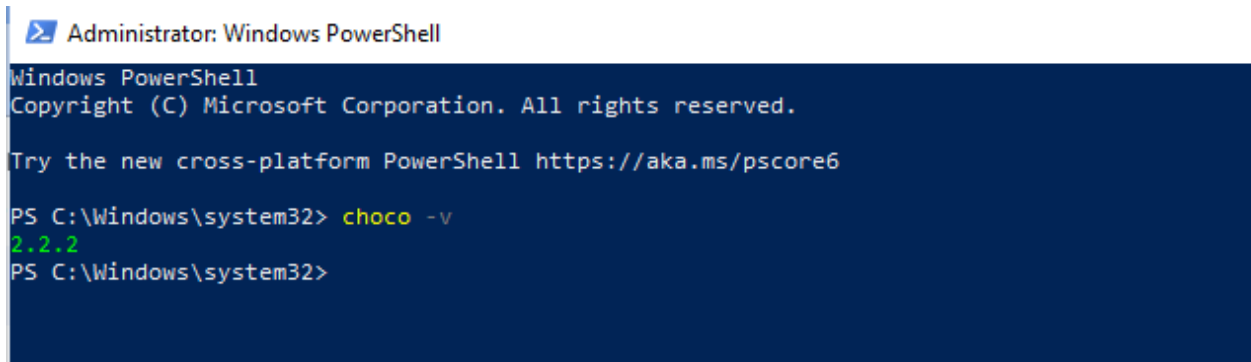
Windows OS

Choco – is a package manager for installing software by using Command

1) Setting up choco

<https://chocolatey.org/install>

```
Set-ExecutionPolicy Bypass -Scope Process -Force;  
[System.Net.ServicePointManager]::SecurityProtocol =  
[System.Net.ServicePointManager]::SecurityProtocol -bor 3072; iex  
((New-Object  
System.Net.WebClient).DownloadString('https://community.chocolatey.org/i  
nstall.ps1'))
```

A screenshot of a Windows PowerShell terminal window. The title bar reads "Administrator: Windows PowerShell". The terminal text shows the PowerShell prompt, copyright notice, and a suggestion to try the new cross-platform PowerShell. The user enters the command "choco -v" and the output is "2.2.2".

```
Administrator: Windows PowerShell  
Windows PowerShell  
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Try the new cross-platform PowerShell https://aka.ms/pscore6  
  
PS C:\Windows\system32> choco -v  
2.2.2  
PS C:\Windows\system32>
```

2) We need to install aws cli

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

PS C:\Windows\system32> choco -v
3.2.2
PS C:\Windows\system32> choco install awscli
Chocolatey v2.2.2
Installing the following packages:
awscli
By installing, you accept licenses for the packages.
Progress: Downloading awscli 2.15.26... 100%

awscli v2.15.26 [Approved]
awscli package files install completed. Performing other installation steps.
The package awscli wants to run 'chocolateyinstall.ps1'.
Note: If you don't run this script, the installation will fail.
Note: To confirm automatically next time, use '-y' or consider:
choco feature enable -n allowGlobalConfirmation
Do you want to run the script?([Y]es/[A]ll - yes to all/[N]o/[P]rint): yes

Downloading awscli 64 bit
  from 'https://awscli.amazonaws.com/AWSCLIV2-2.15.26.msi'
Progress: 100% - Completed download of C:\Users\dell\AppData\Local\Temp\chocolatey\awscli\2.15.26\AWSCLIV2-2.15.26.msi (38.68 MB).
Download of AWSCLIV2-2.15.26.msi (38.68 MB) completed.
Hashes match.
Installing awscli...
awscli has been installed.
  awscli may be able to be automatically uninstalled.
Environment Vars (like PATH) have changed. Close/reopen your shell to
  see the changes (or in powershell/cmd.exe just type 'refreshenv').
The install of awscli was successful.
  Software installed as 'MSI', install location is likely default.

Chocolatey installed 1/1 packages.
  See the log for details (C:\ProgramData\chocolatey\logs\chocolatey.log).
PS C:\Windows\system32>
```

3) Now we need to install git

<https://community.chocolatey.org/packages/git>

```

PS C:\Windows\system32> choco install git -y
Chocolatey v2.2.2
Installing the following packages:
git
By installing, you accept licenses for the packages.
Progress: Downloading chocolatey-compatibility.extension 1.0.0... 100%

chocolatey-compatibility.extension v1.0.0 [Approved]
chocolatey-compatibility.extension package files install completed. Performing other installation steps.
  Installed/updated chocolatey-compatibility extensions.
  The install of chocolatey-compatibility.extension was successful.
  Software installed to 'C:\ProgramData\chocolatey\extensions\chocolatey-compatibility'
Progress: Downloading chocolatey-core.extension 1.4.0... 100%

chocolatey-core.extension v1.4.0 [Approved]
chocolatey-core.extension package files install completed. Performing other installation steps.
  Installed/updated chocolatey-core extensions.
  The install of chocolatey-core.extension was successful.
  Software installed to 'C:\ProgramData\chocolatey\extensions\chocolatey-core'
Progress: Downloading git.install 2.44.0... 100%

git.install v2.44.0 [Approved]
git.install package files install completed. Performing other installation steps.
Using Git LFS
Installing 64-bit git.install...
git.install has been installed.
git.install installed to 'C:\Program Files\Git'
  git.install can be automatically uninstalled.
Environment Vars (like PATH) have changed. Close/reopen your shell to
see the changes (or in powershell/cmd.exe just type 'refreshenv').
The install of git.install was successful.
  Software installed to 'C:\Program Files\Git\'
Progress: Downloading git 2.44.0... 100%

git v2.44.0 [Approved]
git package files install completed. Performing other installation steps.
  The install of git was successful.
  Software installed to 'C:\ProgramData\chocolatey\lib\git'

Chocolatey installed 4/4 packages.
See the log for details (C:\ProgramData\chocolatey\logs\chocolatey.log).
PS C:\Windows\system32>

```

```

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PS C:\Windows\system32> git --version
git version 2.44.0.windows.1
PS C:\Windows\system32>

```

4) Download VSCode

<https://community.chocolatey.org/packages/vscode>

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

PS C:\Windows\system32> git --version
git version 2.44.0.windows.1
PS C:\Windows\system32>
PS C:\Windows\system32>
PS C:\Windows\system32> choco upgrade vscode -y
Chocolatey v2.2.2
Upgrading the following packages:
vscode
By upgrading, you accept licenses for the packages.
vscode is not installed. Installing...
Progress: Downloading vscode.install 1.87.0... 100%

vscode.install v1.87.0 [Approved]
vscode.install package files upgrade completed. Performing other installation steps.
WARNING: No registry key found based on 'Microsoft Visual Studio Code'
Merge Tasks: !runCode, desktopicon, quicklaunchicon, addcontextmenufiles, addcontextmenufolders, associatewithfiles, addtopath
Downloading vscode.install 64 bit
  from 'https://update.code.visualstudio.com/1.87.0/win32-x64/stable'
Progress: 100% - Completed download of C:\Users\dell\AppData\Local\Temp\chocolatey\vscode.install\1.87.0\VSCodeSetup-x64-1.87.0.exe (93.6 MB).
Download of VSCodeSetup-x64-1.87.0.exe (93.6 MB) completed.
Hashes match.
Installing vscode.install...
vscode.install has been installed.
  vscode.install can be automatically uninstalled.
Environment Vars (like PATH) have changed. Close/reopen your shell to
see the changes (or in powershell/cmd.exe just type 'refreshenv').
The upgrade of vscode.install was successful.
  Software installed to 'C:\Program Files\Microsoft VS Code\'
Progress: Downloading vscode 1.87.0... 100%

vscode v1.87.0 [Approved]
vscode package files upgrade completed. Performing other installation steps.
The upgrade of vscode was successful.
  Software installed to 'C:\ProgramData\chocolatey\lib\vscode'

Chocolatey upgraded 2/2 packages.
  See the log for details (C:\ProgramData\chocolatey\logs\chocolatey.log).
PS C:\Windows\system32>
```

5) Now we need to install Terraform'

<https://community.chocolatey.org/packages/terraform>

For mac:

Homebrew

<https://brew.sh/>

Awscli

<https://formulae.brew.sh/formula/awscli>

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

PS C:\Windows\system32> choco install terraform -y
Chocolatey v2.2.2
Installing the following packages:
terraform
By installing, you accept licenses for the packages.
Progress: Downloading terraform 1.7.3... 100%

terraform v1.7.3 [Approved]
terraform package files install completed. Performing other installation steps.
Removing old terraform plugins
Downloading terraform 64 bit
  from 'https://releases.hashicorp.com/terraform/1.7.3/terraform_1.7.3_windows_amd64.zip'
Progress: 100% - Completed download of C:\Users\dell\AppData\Local\Temp\chocolatey\terraform\1.7.3\terraform_1.7.3_windows_amd64.zip (25.05 MB).
Download of terraform_1.7.3_windows_amd64.zip (25.05 MB) completed.
Hashes match.
Extracting C:\Users\dell\AppData\Local\Temp\chocolatey\terraform\1.7.3\terraform_1.7.3_windows_amd64.zip to C:\ProgramData\chocolatey\lib\terraform\tools...
C:\ProgramData\chocolatey\lib\terraform\tools
ShimGen has successfully created a shim for terraform.exe
The install of terraform was successful.
  Software installed to 'C:\ProgramData\chocolatey\lib\terraform\tools'

Chocolatey installed 1/1 packages.
See the log for details (C:\ProgramData\chocolatey\logs\chocolatey.log).

Did you know the proceeds of Pro (and some proceeds from other
licensed editions) go into bettering the community infrastructure?
Your support ensures an active community, keeps Chocolatey tip-top,
plus it nets you some awesome features!
https://chocolatey.org/compare
PS C:\Windows\system32>
```

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

PS C:\Windows\system32> terraform -v
Terraform v1.7.3
on windows_amd64

Your version of Terraform is out of date! The latest version
is 1.7.4. You can update by downloading from https://www.terraform.io/downloads.html
PS C:\Windows\system32>
```

Create a new **file/dir** with the name of **terraform**

Provider in Terraform:

- 1) Provider: (onetime) it is nothing but, a cloud platform on which we create virtual infra.
 - a) Cloud plugin
 - b) Credentials
 - c) Region

2) Resource block: this is a mandatory block that contains information about the resource, it also contains an argument

3) output block: (optional) This block contains all the attributes (output values) information attributes values mean output values.

4) module: this is also optional – modules are reusable terraform templates.

Select Administrator: Windows PowerShell

Windows PowerShell

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Try the new cross-platform PowerShell <https://aka.ms/pscore6>

PS C:\Windows\system32> terraform --help

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

```
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PS C:\Windows\system32> aws configure
AWS Access Key ID [None]: AKIAI4UQH7D6LQW3R2YXW
AWS Secret Access Key [None]: 9Q16K8R9M8LQW3R2YXW
Default region name [None]: us-east-2
Default output format [None]:
PS C:\Windows\system32>
```

```
EXPLORER
TERRAFORM
> .terraform
> .terraform.lock.hcl
> provider.tf

provider.tf
1 terraform {
2   required_providers {
3     aws = {
4       source = "hashicorp/aws"
5       version = "~> 5.0"
6     }
7   }
8 }
9
10 # Configure the AWS Provider
11 provider "aws" {
12   region = "us-east-2"
13 }
14

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS powershell

selections it made above. Include this file in your version control repository
so that Terraform can guarantee to make the same selections by default when
you run "terraform init" in the future.

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.
PS C:\Users\dell\Desktop\Terraform>
```

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

Warning: PowerShell detected that you might be using a screen reader and has disabled PSReadLine for compatibility purposes. If you want to re-enable it, run 'Import-Module PSReadLine'.

PS C:\Users\Md Sakib\Desktop\Terraform> terraform init

Initializing the backend...

Initializing provider plugins...
- Finding hashicorp/aws versions matching "~> 5.0"...
- Installing hashicorp/aws v5.40.0...
- Installed hashicorp/aws v5.40.0 (signed by HashiCorp)

Terraform has created a lock file .terraform.lock.hcl to record the provider
selections it made above. Include this file in your version control repository
so that Terraform can guarantee to make the same selections by default when
you run "terraform init" in the future.

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.
PS C:\Users\Md Sakib\Desktop\Terraform>
```