



What are we going to see in this session?

- Understanding Terraform HCL
- Arguments & Blocks
- Terraform simple variable types
- Terraform complex variable types
- Terraform set
- How to call declared variables
- Most commonly used variable types
- What is the use of variables?





Understanding Terraform HCL

- Terraform codes should be written in HCL [HashiCorp Configuration Language]
- Let's try to understand the terraform syntax and rules.
- Terraform can only understand the files which are with `[tf]` extension.

example: `main.tf`



Argument & Blocks

- Arguments : An argument assigns a value to a particular name.

```
image_id = "abc123"
```

- The identifier before [=] sign is argument name & the expression after [=] sign is argument value.
- The argument values can be
 - ✓ String: Just a text "hello"
 - ✓ Number: represents whole no "15" and fractional no "6.20"
 - ✓ bool: Logical conditionals "true or false"
 - ✓ List: Sequence of values ["us-west-1a", "us-west-1c"]
 - ✓ Map: Group of values with names labels {name = "Mabel", age = 52}

- Blocks : Blocks is a container for other contents.

```
resource "aws_instance" "example" {  
  ami = "abc123"  
}
```



Terraform simple variable types

- String
- Number

Code : [git-repo](#)

[file path : [Terraform/Codes/E0_understand-variables/simple_variable.tf](#)]



Terraform complex variable types

- List
- Map

Code : git-repo

[file path : Terraform/Codes/E0_understand-variables/complex_variables.tf]



Terraform set

Set :

Set is also more similar to list but it doesn't keep the list in order how you are keeping in list and it can only contain unique values.

Example : A list that has [5, 1, 1, 2] becomes [1, 2, 5] in set.



How to call declared variables

How to call your variables ? This can be tested in terraform console.

String :

- `var.myvar`
- Also, can be called as `"${var.myvar}"`

Map :

- `var.mymap.name`
- `var.mymap["name"]`
- Also, can be called as `"${var.mymap["name"]}"`

Lists :

- `var.mylist`
- `var.mylist[0]`



Most commonly used variable types

- The most commonly used variable types are List & Map
- Other variable types are used periodically if required but its good to know about them.



What is the use of variables

- Variables can be kept in a separate file.
- Variable files are used to keep your secrets [AWS credentials]
 - ✓ Through this you can avoid updating AWS credentials in Git repo.
- Variables are also widely used to store the elements which keep changing
 - ✓ For Example : AMI IDs might change for each and every region.
- Using variables makes the script reusable.



End of this topic !

Any questions?



TERRAFORM