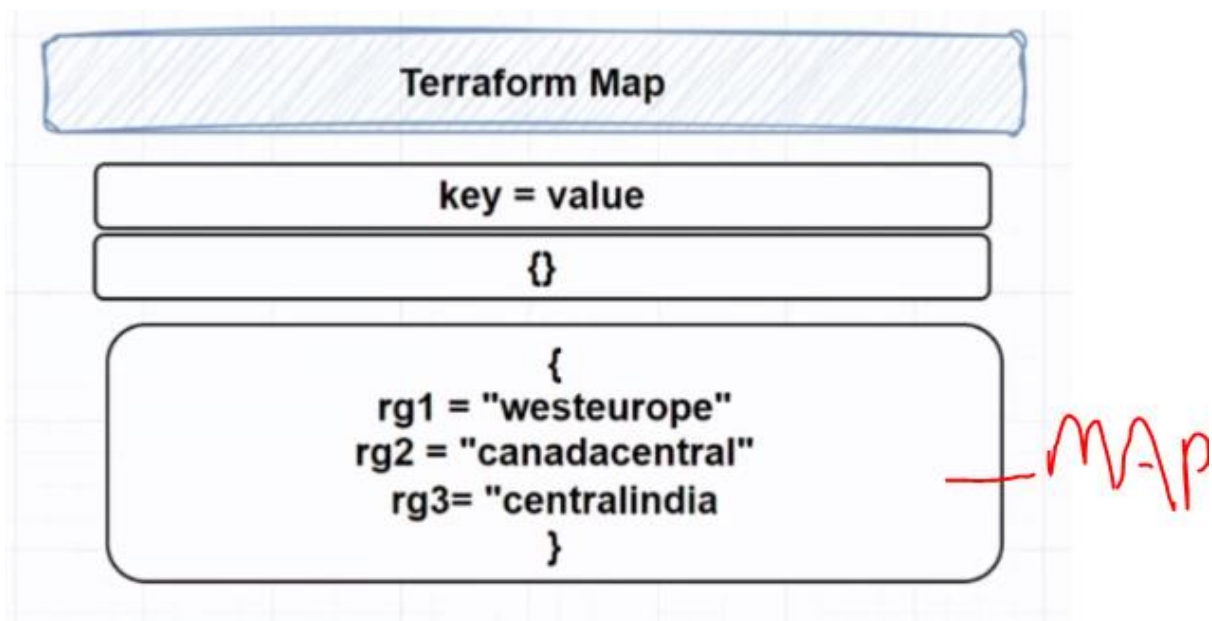


21 July 2024

**AGENDA 1**– If rgs are to be made at different locations then what will happen so writing code with variable declaration



1) **Map** – In map data is represented or stored in key = value format or pair as well as with {} curly brackets



2) Create **main.tf** file and put resource group code into it and then create **provider.tf** file and put provider code into it.

```
variable "rg_map" {
  type = map
  default = {
    rg1 = "westeurope"
    rg2 = "centralindia"
    rg3 = "canadacentral"
  }
}

resource "azurerm_resource_group" "rgs" {
  for_each = var.rg_map
  name     = each.key
  location = each.value
}
```

```
resource "azurerm_resource_group" "rgs" {
  name     = rg1
  location = "westeurope"
}
```

```
resource "azurerm_resource_group" "rgs" {
  name     = rg2
  location = "centralindia"
}
```

```
resource "azurerm_resource_group" "rgs" {
  name     = rg3
  location = "canadacentral"
}
```

KEY

VALUE

```
variable "rg_map" {
  type = map
  default = {
    rg1 = "westeurope"
    rg2 = "centralindia"
    rg3 = "canadacentral"
  }
}

resource "azurerm_resource_group" "rgs" {
  for_each = var.rg_map
  name     = each.key
  location = each.value
}
```

सूखा रन

```
resource "azurerm_resource_group" "rgs" {
  name     = rg1
  location = "westeurope"
}
```

Left me key  
Right me value

10

Left me key  
Right me value

```
variable "rg_map" {
  type = map(any)
  default = {
    rg1 = "westeurope"
    rg2 = "centralindia"
    rg3 = "canadacentral"
  }
}

resource "azurerm_resource_group" "rgs" {
  for_each = var.rg_map
  name     = each.key
  location = each.value
}
```

सूखा रन

```
rg1 = "westeurope"

resource "azurerm_resource_group" "rgs" {
  name     = rg1
  location = "westeurope"
}
```

```
rg2 = "centralindia"

resource "azurerm_resource_group" "rgs" {
  name     = rg2
  location = "centralindia"
}
```

```
rg3 = "canadacentral"

resource "azurerm_resource_group" "rgs" {
  name     = rg3
  location = "canadacentral"
}
```

3) For\_each block runs for as many times as we have the keys in our code.

For eg – rg1, rg2, rg3 are the keys so for\_each block will run for 3 times

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## AGENDA 2– Above code without variable declaration

Above code without variable declaration

```
main.tf > resource "azurerm_resource_group" "rgs"
1 resource "azurerm_resource_group" "rgs" {
2   for_each = {
3     rg1 = "westeurope"
4     rg2 = "centralindia"
5     rg3 = "canadacentral"
6   }
7   name     = each.key
8   location = each.value
9 }
```

terraform init

terraform plan

+++++

## AGENDA 3– Writing code for storage account without variable declaration

- 1) Key – Key should always be string means alphanumeric characters. eg - stg1
- 2) Suppose we are creating 3 storage accounts so create a file “storage\_account.tf”

```
resource "azurerm_storage_account" "example" {
  for_each = {
    stg1 = {
      name                        = "dhondhustorage007"
      resource_group_name       = "rg-devopsinsiders"
      location                   = "westus"
      account_tier               = "Standard"
      account_replication_type  = "GRS"
    }
    stg2 = {
      name                        = "dhondhustorage008"
      resource_group_name       = "rg-devops"
      location                   = "centralindia"
      account_tier               = "Standard"
      account_replication_type  = "LRS"
    }
    stg3 = {
      name                        = "dhondhustorage009"
      resource_group_name       = "rg-devop132423s"
      location                   = "westeurope"
      account_tier               = "Standard"
      account_replication_type  = "ZRS"
    }
  }
  name =
```

## सूखा रन

Iteration 1

```
stg1 = {
  name                        = "dhondhustorage007"
  resource_group_name       = "rg-devopsinsiders"
  location                   = "westus"
  account_tier               = "Standard"
  account_replication_type  = "GRS"
}
```

each.key = stg1

```
each.value = {
  name                        = "dhondhustorage007"
  resource_group_name       = "rg-devopsinsiders"
  location                   = "westus"
  account_tier               = "Standard"
  account_replication_type  = "GRS"
}
```



3) Now in a similar way Iteration 2 and Iteration 3 will also run

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## AGENDA 4– Writing code for storage account with variable declaration

```

variable "storage_account_map" {
  type = map(any)
  default = {
    stg1 = {
      name                = "storage007"
      resource_group_name = "rg1"
      location             = "westus"
      account_tier         = "Standard"
      account_replication_type = "GRS"
    }

    stg2 = {
      name                = "storage008"
      resource_group_name = "rg2"
      location             = "centralindia"
      account_tier         = "Standard"
      account_replication_type = "LRS"
    }

    stg3 = {
      name                = "storage009"
      resource_group_name = "rg3"
      location             = "westeurope"
      account_tier         = "Standard"
      account_replication_type = "ZRS"
    }
  }
}

```



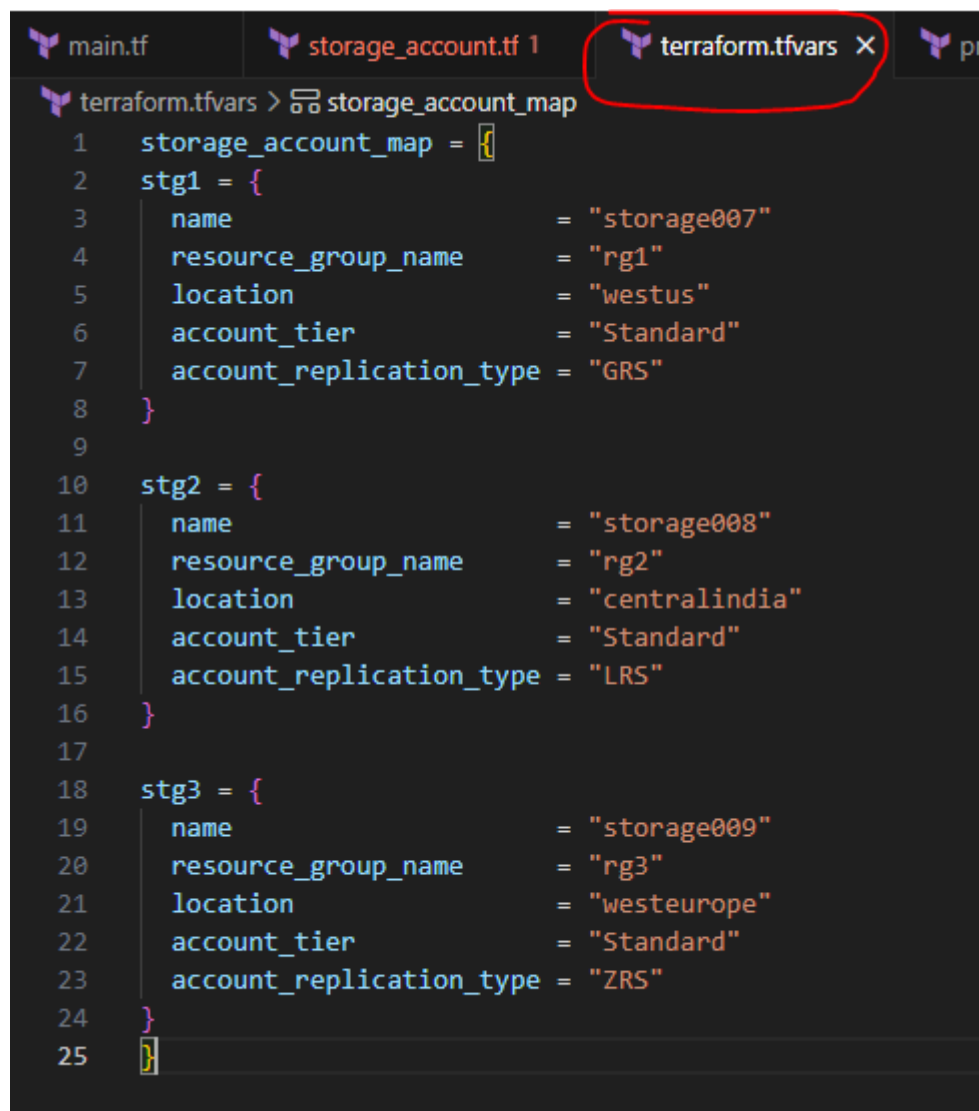
```

}
}

resource "azurerm_storage_account" "example" {
  for_each      = var.storage_account_map
  name          = each.value.name
  resource_group_name = each.value.resource_group_name
  location      = each.value.location
  account_tier  = each.value.account_tier
  account_replication_type = each.value.account_replication_type
}
}

```

- 1) Create **terraform.tf vars** file to pass the value of variable as a best practice
- 2) Now in this **terraform.tf vars** file put the value of variable **storage\_account\_map** that we had declared



```

main.tf  storage_account.tf 1  terraform.tfvars X  pro
terraform.tfvars > storage_account_map
1  storage_account_map = []
2  stg1 = {
3      name          = "storage007"
4      resource_group_name = "rg1"
5      location      = "westus"
6      account_tier  = "Standard"
7      account_replication_type = "GRS"
8  }
9
10 stg2 = {
11     name          = "storage008"
12     resource_group_name = "rg2"
13     location      = "centralindia"
14     account_tier  = "Standard"
15     account_replication_type = "LRS"
16 }
17
18 stg3 = {
19     name          = "storage009"
20     resource_group_name = "rg3"
21     location      = "westeurope"
22     account_tier  = "Standard"
23     account_replication_type = "ZRS"
24 }
25 []

```

- 3) Now **storage\_account.tf** file will become as below

```
storage_account.tf > ...
1  variable "storage_account_map" {
2    type = map(any)
3  }
4
5  resource "azurerm_storage_account" "storage_accountwa" {
6    for_each      = var.storage_account_map
7    name          = each.value.name
8    resource_group_name = each.value.resource_group_name
9    location      = each.value.location
10   account_tier   = each.value.account_tier
11   account_replication_type = each.value.account_replication_type
12 }
13
14
```

terraform init

terraform validate

terraform fmt

az login

terraform plan

so it will plan 6 to add i.e. 3 rgs and 3 storage accounts

+++++

```
main.tf > ...
1  variable "rg_map" {
2    type = map(any)
3    default = {
4      rg1 = "westeurope"
5      rg2 = "centralindia"
6      rg3 = "canadacentral"

```

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