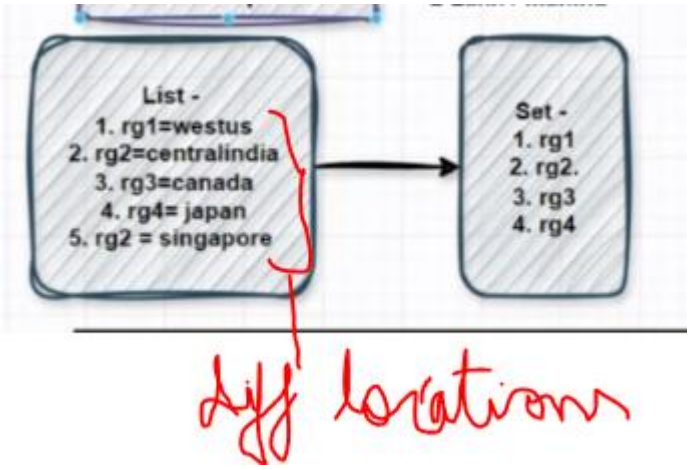
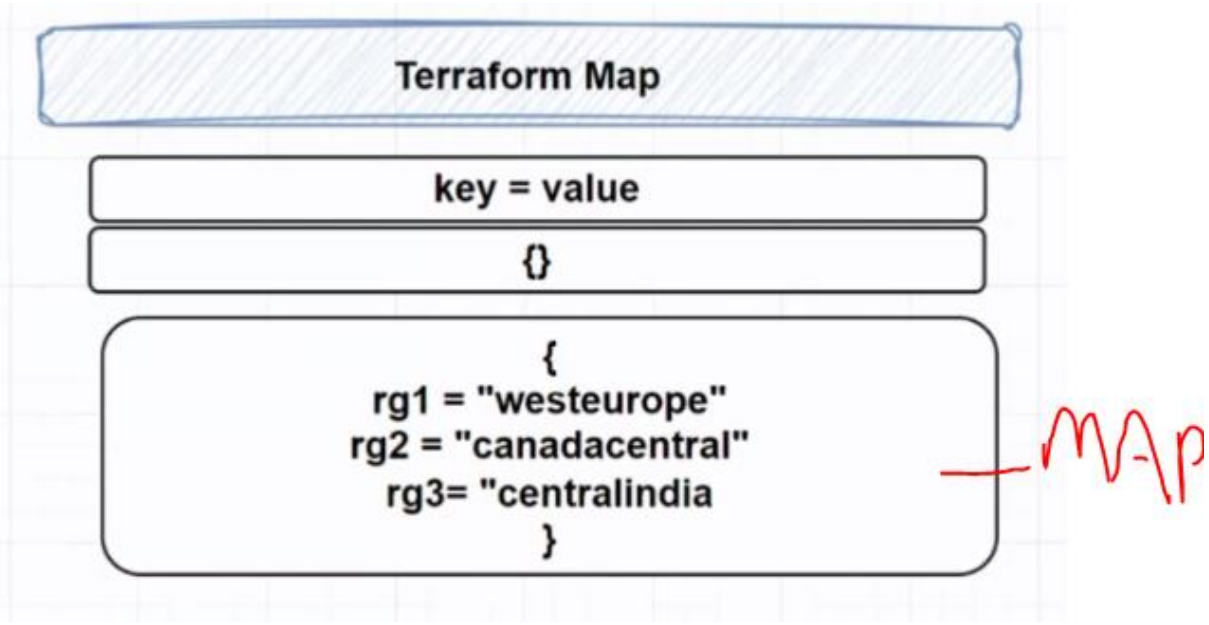
21 July 2024

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.

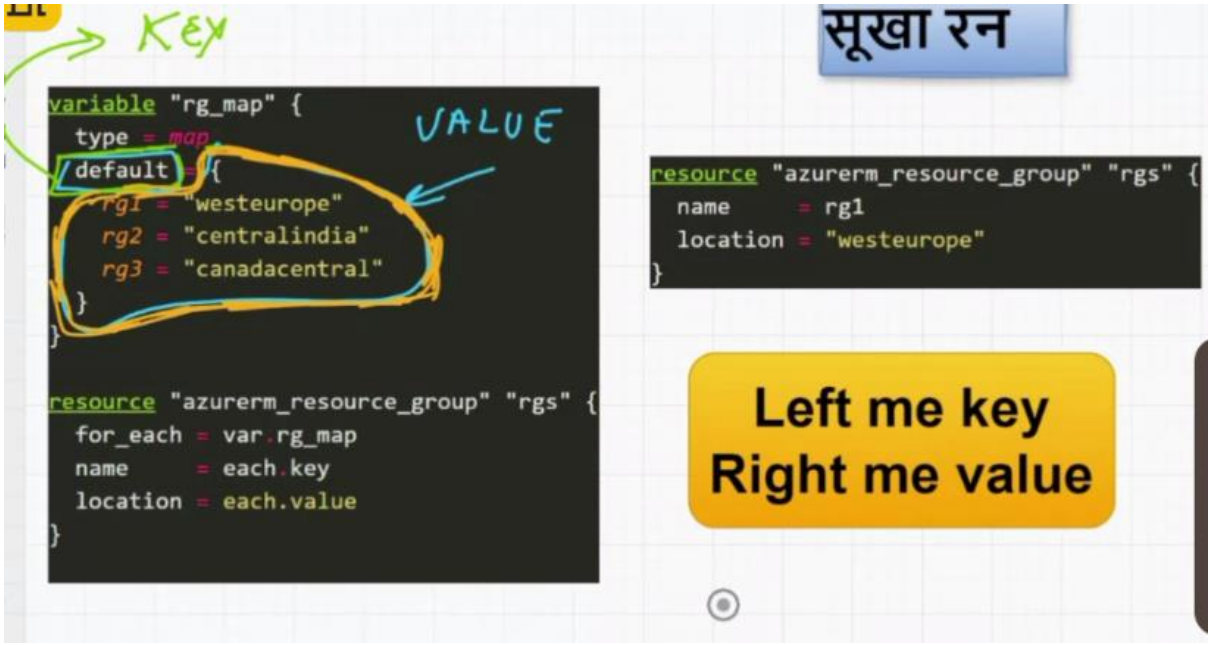
```
variable "rg_map" {
  type = map
  default = {
    rg1 = "westeurope"
    rg2 = "centralindia"
    rg3 = "canadacentral"
  }
}

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"
}
```



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

terraform init

terraform plan

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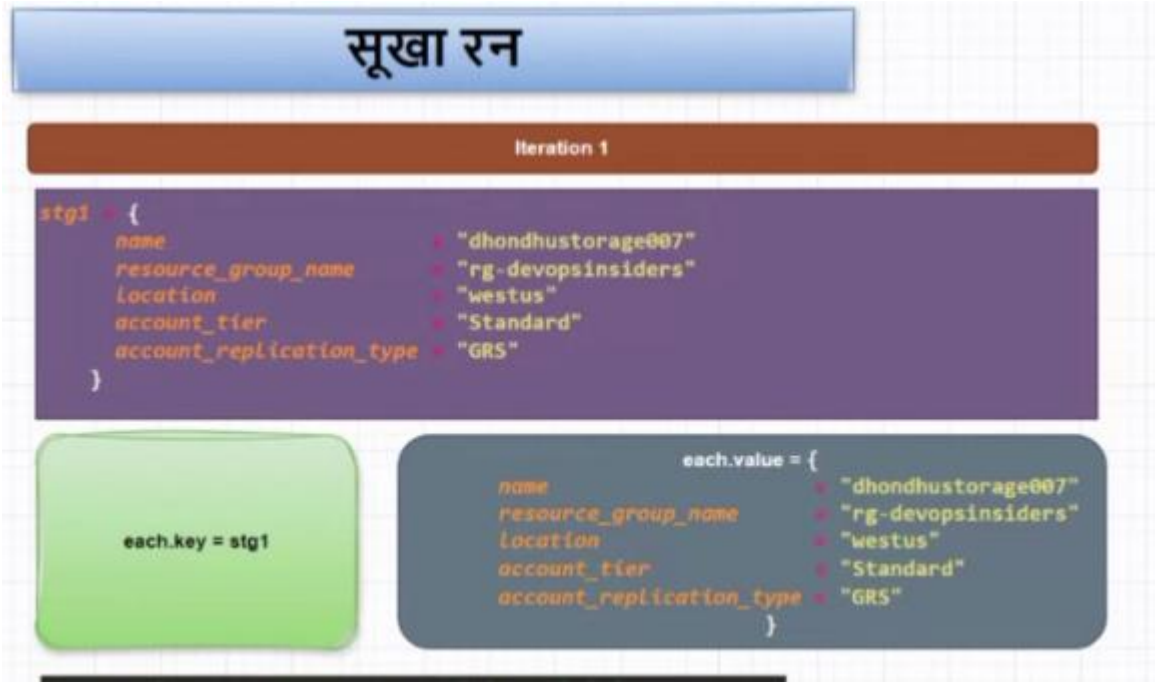
AGENDA 3– Writing code for storage account without variable declaration

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                     =
```



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

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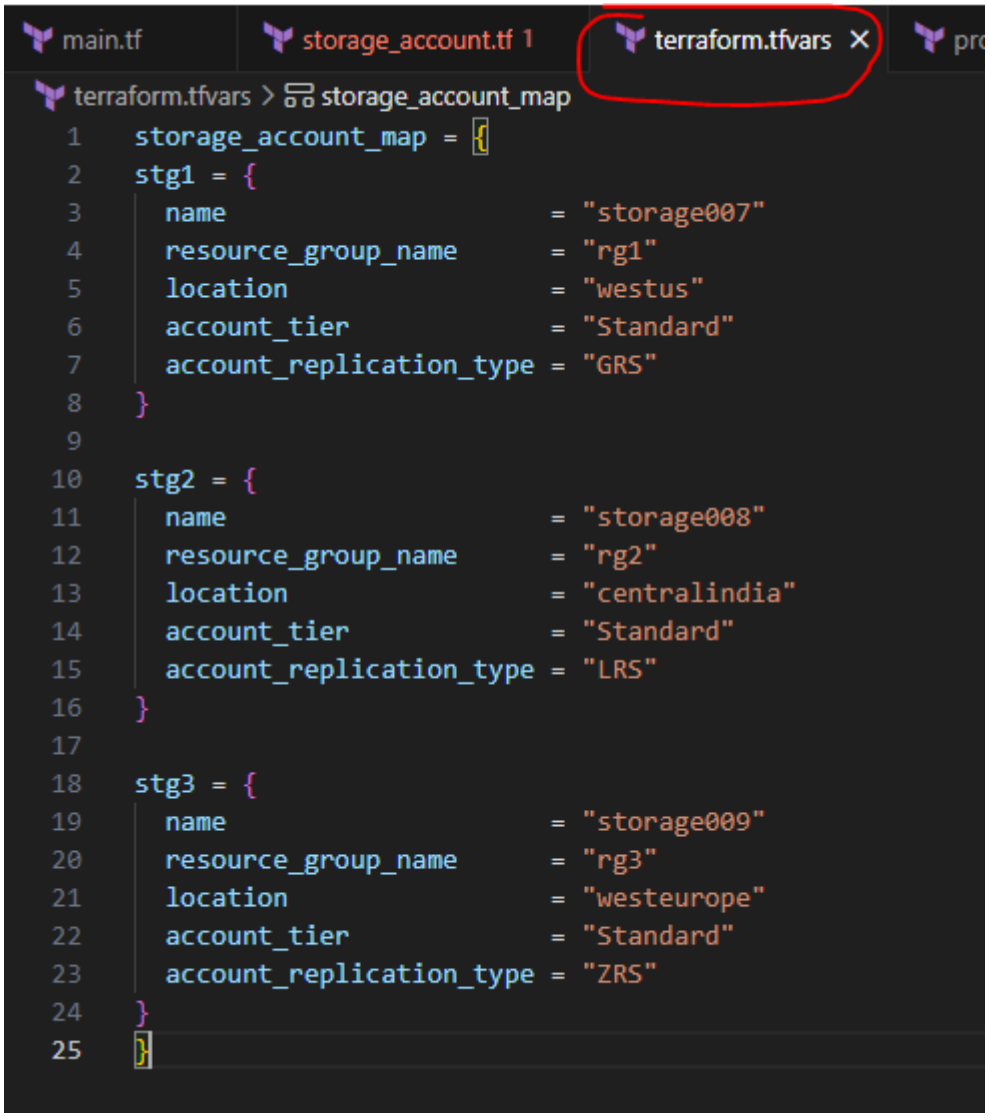
AGENDA 4– Writing code for storage account with variable declaration

```
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



3) Now **storage_account.tf** file will become as below

main.tf | storage_account.tf | terraform.tfvars | provider.tf

storage_account.tf > ...

```
variable "storage_account_map" {
type = map(any)
}

resource "azurerm_storage_account" "storage_accountwa" {
  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
}

```

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

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1 2 3 4

main.tf | storage_account.tf | terraform.tfvars | provider.tf

main.tf > ...

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

++