

Terraform

Set

Creation of 5 users

1. Main.tf

```
provider "aws" {  
    region= var.region1  
    access_key = var.access_key  
    secret_key = var.secret_key  
}  
  
resource "aws_iam_user" "iamusers" {  
    for_each = var.usernames  
    name = each.value  
}
```

Variable.tf

```
variable "access_key" {  
    type = string  
}  
  
variable "secret_key" {  
    type = string  
}  
  
variable "region1" {  
    default = "us-east-1"  
}  
  
variable "region2" {  
    default = "us-west-2"  
}  
  
variable "usernames"{  
    description = "iam_user"
```

```
type = set(string)

default = ["user1", "user2", "user3", "user4", "user5"]

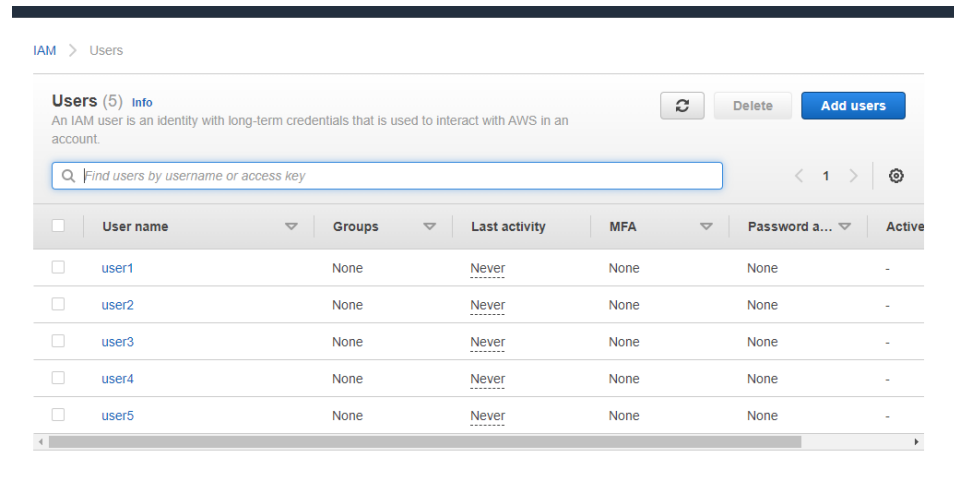
}

}
```

Terraform.tfvars

```
access_key = "AKIA6LFFGWBXSELWSXC"
```

```
secret_key = "kxGntAwaCUC0bXqVNV9+RVNa2hKaF7uB4DCACMy"
```



The screenshot shows the AWS IAM console 'Users' page. At the top, there's a breadcrumb 'IAM > Users'. Below it, the title is 'Users (5)' with an 'Info' link. A description states: 'An IAM user is an identity with long-term credentials that is used to interact with AWS in an account.' To the right of the description are buttons for 'Refresh', 'Delete', and 'Add users'. Below this is a search bar with the placeholder text 'Find users by username or access key'. The main content is a table with columns: 'User name', 'Groups', 'Last activity', 'MFA', 'Password a...', and 'Active'. There are five rows of users, each with a checkbox on the left. The users are 'user1', 'user2', 'user3', 'user4', and 'user5'. All have 'None' for Groups and MFA, 'Never' for Last activity, and 'None' for Password a... The 'Active' column shows a '-' for each user.

| <input type="checkbox"/> | User name | Groups | Last activity | MFA | Password a... | Active |
|--------------------------|-----------|--------|---------------|------|---------------|--------|
| <input type="checkbox"/> | user1 | None | Never | None | None | - |
| <input type="checkbox"/> | user2 | None | Never | None | None | - |
| <input type="checkbox"/> | user3 | None | Never | None | None | - |
| <input type="checkbox"/> | user4 | None | Never | None | None | - |
| <input type="checkbox"/> | user5 | None | Never | None | None | - |

Tuple

Creation of ec2 using Tuple variable

Main.tf

```
provider "aws" {  
    region= var.region1  
    access_key = var.access_key  
    secret_key = var.secret_key  
}  
  
resource "aws_instance" "ec2_tuple"{  
    ami = var.instance_details[0]  
    instance_type = var.instance_details[1]  
    count = var.instance_details[2]  
    associate_public_ip_address = var.instance_details[3]  
    tags = {  
        "Name" = "tuple-ec2"  
    }  
}
```

Variable.tf

```
variable "access_key" {  
    type = string  
}  
variable "secret_key" {  
    type = string  
}  
variable "region1" {  
    default = "us-east-1"  
}  
variable "region2" {  
    default = "us-west-2"  
}  
variable "instance_details" {  
    description = "provides instance details"  
    type = tuple([string, string,number, bool])  
    default = ["ami-0c02fb55956c7d316","t2.micro","2","true"]  
}
```

Terraform.tfvars

```
access_key = "AKIA6LFFBWBXSELWSXC"  
secret_key = "kxGntAwCU9C0bXqVNV9+RVNa2hKaF7uB4DCACMy"
```

terraform apply -auto-approve -var-file terraform.tfvars

ch for services, features, blogs, docs, and more

[Alt+S]

N. Virginia

Arun

Successfully terminated i-00b66708302496f68

Instances (2) Info

Connect

Instance state

Actions

Launch instances

Search

Instance state = running

Clear filters

< 1 >

| | Name | Instance ID | Instance state | Instance type | Status check | Ala... | Avail |
|--------------------------|-----------|---------------------|----------------|---------------|--------------|--------|------------|
| <input type="checkbox"/> | tuple-ec2 | i-0fdb532a0cf15d2e2 | Running | t2.micro | Initializing | N. + | us-east-1d |
| <input type="checkbox"/> | tuple-ec2 | i-08d0a3b97c4f266b9 | Running | t2.micro | Initializing | N. + | us-east-1d |

Instance: i-00b66708302496f68

Select an instance above

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

▼ Instance summary Info

| | | |
|---------------------|---------------------|------------------------|
| Instance ID | Public IPv4 address | Private IPv4 addresses |
| i-00b66708302496f68 | - | - |
| IPv6 address | Instance state | Public IPv4 DNS |
| - | - | - |

Object

Creation of ec2 using object

Main.tf

```
provider "aws" {  
  
    region= var.region1  
  
    access_key = var.access_key  
  
    secret_key = var.secret_key  
  
}  
  
resource "aws_instance" "ec2_object"{  
  
    ami = var.instance_details_object.ami  
  
    instance_type = var.instance_details_object.instance_type  
  
    count = var.instance_details_object.no_of_instances  
  
    associate_public_ip_address = var.instance_details_object.Public_ip  
  
    tags = {  
  
        "Name" = "object-ec2"  
  
    }  
  
}
```

Variable.tf

```
variable "access_key" {  
  
    type = string  
  
}  
  
variable "secret_key" {  
  
    type = string  
  
}  
  
variable "region1" {  
  
    default = "us-east-1"  
  
}  
  
variable "region2" {  
  
    default = "us-west-2"
```

```

}

variable "usernames"{
    description = "iam_user"

    type = set(string)

    default = ["user1", "user2", "user3", "user4", "user5"]
}

variable "instance_details_object" {
    description = "provides instance details"

    type = object({ami=string, instance_type=string,no_of_instances=number, Public_ip=bool})

    default = ({ami="ami-0c02fb55956c7d316", instance_type="t2.micro",no_of_instances="3",
Public_ip="true"})
}

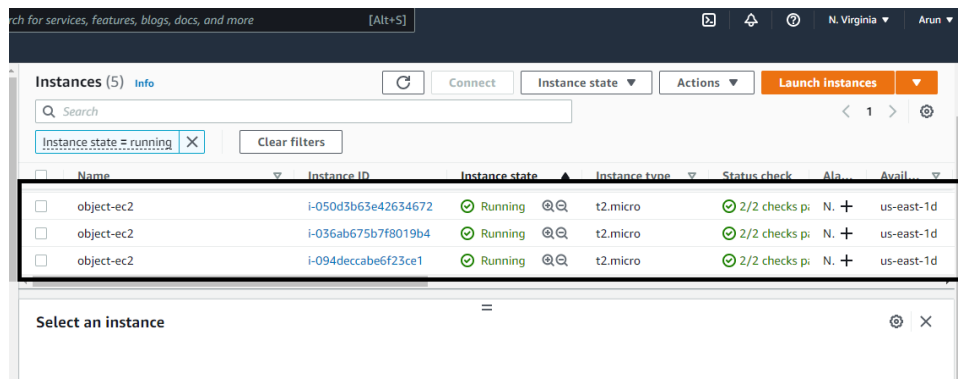
```

Terraform.tfvars

access_key = "AKIA6LFGBWBXSELWSXC"

secret_key = "kxGntAaCU9C0bXqVNV9+RVNa2hKaF7uB4DCACMy"

terraform apply -auto-approve -var-file terraform.tfvars



For Loop and Output

Print the list of iam_user

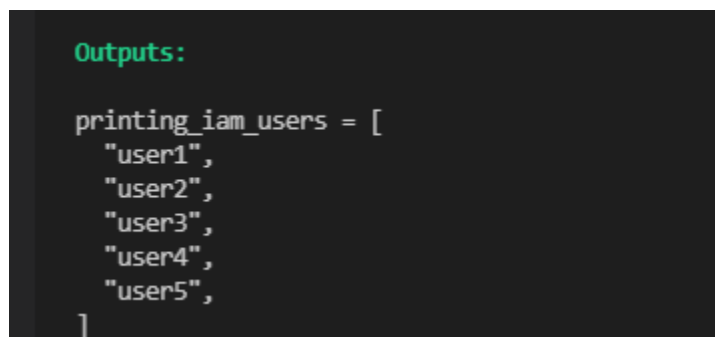
Main.tf

```
provider "aws" {  
    region= var.region1  
    access_key = var.access_key  
    secret_key = var.secret_key  
}  
  
resource "aws_iam_user" "iamusers" {  
    for_each = var.usernames  
    name = each.value  
}  
  
output "printing_iam_users" {  
    value = [for name in var.usernames : name]  
}
```

Variables.tf

```
variable "access_key" {  
    type = string  
}  
  
variable "secret_key" {  
    type = string  
}  
  
variable "region1" {  
    default = "us-east-1"  
}  
  
variable "region2" {
```

```
    default = "us-west-2"
}
variable "usernames"{
    description = "iam_user"
    type = set(string)
    default = ["user1", "user2", "user3", "user4", "user5"]
}
```



```
Outputs:

printing_iam_users = [
  "user1",
  "user2",
  "user3",
  "user4",
  "user5",
]
```

Any variable

We can also use any in place of variable types

```
variable "ami_id" {
    type = any
    default = "ami-0c02fb55956c7d316"
}
```