

Terraform Task

Task Description:

Launch Linux EC2 instances in two regions using a single Terraform file.

Techstacks needs to be used :

- AWS EC2
- Terraform
- AWS CLI

Aws EC2 Instance used for the task

The screenshot shows the AWS EC2 Instances page. The left sidebar has sections for EC2 (Dashboard, AWS Global View, Events), Instances (Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Capacity Manager), and Images. The main content area shows 'Instances (1) Info' with a search bar and a 'Running' filter. A table lists one instance: SERVER 1 (Instance ID: i-070543c59fe15e61d, State: Running, Type: t3.micro, Health: 3/3 checks passed, Alarms: View alarms, Availability Zone: us-west-2b, Public IPv4 DNS: ec2-35-162-5-1). The top right shows 'Last updated less than a minute ago'.

Name	Instance ID	State	Type	Health	Alarms	Availability Zone	Public IPv4 DNS
SERVER 1	i-070543c59fe15e61d	Running	t3.micro	3/3 checks passed	View alarms	us-west-2b	ec2-35-162-5-1

Aws configured

```
/m/-'  
[ec2-user@ip-172-31-27-108 ~]$ sudo su -  
[root@ip-172-31-27-108 ~]# aws --version  
aws-cli/2.32.22 Python/3.9.25 Linux/6.1.161-183.298.amzn2023.x86_64 source/x86_64.a  
[root@ip-172-31-27-108 ~]# aws configure  
AWS Access Key ID [None]: AKIARIBG2TVVNSIT2ESS  
AWS Secret Access Key [None]: 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  
  
[1]+  Stopped                  aws configure  
[root@ip-172-31-27-108 ~]# aws configure  
AWS Secret Access Key [None]: AKIARIBG2TVVNSIT2ESS  
Default output format [None]:  
[2]+  Stopped                  aws configure  
[root@ip-172-31-27-108 ~]# aws configure  
AWS Access Key ID [None]: AKIARIBG2TVVNSIT2ESS  
AWS Secret Access Key [None]: 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  
Default region name [None]: us-west-1  
Default output format [None]: [root@ip-172-31-27-108 ~]#  
[root@ip-172-31-27-108 ~]# ||
```

Terraform installed

Script file has been created

```
[root@ip-172-31-27-108 ~]# mkdir terraform-multi-region
cd terraform-multi-region
nano main.tf
[root@ip-172-31-27-108 terraform-multi-region]# cat main.tf
provider "aws" {
  alias  = "us-west-1"
  region = "us-west-1"
}

provider "aws" {
  alias  = "us-east-1"
  region = "us-east-1"
}

# --- AMI lookup: us-west-1 ---
data "aws_ami" "amazon_linux_west" {
  provider    = aws.us-west-1
  most_recent = true
  owners      = ["amazon"]

  filter {
    name  = "name"
    values = ["amzn2-ami-hvm-*-x86_64-gp2"]
  }
}

# --- AMI lookup: us-east-1 ---
data "aws_ami" "amazon_linux_east" {
  provider    = aws.us-east-1
  most_recent = true
  owners      = ["amazon"]

  filter {
    name  = "name"
    values = ["amzn2-ami-hvm-*-x86_64-gp2"]
  }
}

resource "aws_instance" "west" {
  provider    = aws.us-west-1
  ami         = data.aws_ami.amazon_linux_west.id
  instance_type = "t3.micro"

  tags = {
    Name = "TF-West-Instance"
  }
}

resource "aws_instance" "east" {
  provider    = aws.us-east-1
  ami         = data.aws_ami.amazon_linux_east.id
}
```

Initiated and applied terraform ,2 ec2 instances created across 2 different regions

```

}

# --- AMI lookup: us-east-1 ---
data "aws_ami" "amazon_linux_east" {
  provider      = aws.us_east_1
  most_recent   = true
  owners        = ["amazon"]

  filter {
    name    = "name"
    values  = ["amzn2-ami-hvm-*-x86_64-gp2"]
  }
}

resource "aws_instance" "west" {
  provider      = aws.us_west_1
  ami           = data.aws_ami.amazon_linux_west.id
  instance_type = "t3.micro"

  tags = {
    Name = "TF-West-Instance"
  }
}

resource "aws_instance" "east" {
  provider      = aws.us_east_1
  ami           = data.aws_ami.amazon_linux_east.id
  instance_type = "t3.micro"

  tags = {
    Name = "TF-East-Instance"
  }
}

```

[root@ip-172-31-27-108 terraform-multi-region]#

The screenshot shows the AWS Management Console interface for the EC2 service. On the left, there is a navigation sidebar with the following items:

- EC2** (selected)
- Dashboard
- EC2 Global View ↗
- Events
- Instances** (selected)
- Instances
- Instance Types
- Launch Templates

The main content area is titled "Instances (1) [Info](#)". It displays a table with the following data:

	Name	Instance ID	Instance state
<input type="checkbox"/>	TF-East-Instance	i-08f39525f680b935d	Running

Below the table is a search bar with the placeholder text "Find Instance by attribute or tag (case-sensitive)".

Instances (1) [Info](#)

Find Instance by attribute or tag (case-sensitive)

Running ▾

Name ⚡

▼

Instance ID

Instance state

▼

Instance type

▼

Status chec

TF-West-Instance

i-0ed12e83aee14e051

Running

[Q](#) [Q](#)

t3.micro

3/3 chec