

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

EC2 > Instances

Instances (1) Info

Find Instance by attribute or tag (case-sensitive) Running

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
SERVER 1	i-070543c59fe15e61d	Running	t3.micro	3/3 checks passed	View alarms +	us-west-2b	ec2-35-162-5-17

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- Spot Requests
- Savings Plans
- Reserved Instances
- Dedicated Hosts
- Capacity Reservations
- Capacity Manager New

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Aws configured

```

[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]: /DmFuF7EIdM5p5sD6vF5D2n5SsvRfqx2ynIit7P

[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]: /DmFuF7EIdM5p5sD6vF5D2n5SsvRfqx2ynIit7P
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

```

Installing      : terraform-1.14.4-1.x86_64 [=====]
Installing      : terraform-1.14.4-1.x86_64 [=====]
Installing      : terraform-1.14.4-1.x86_64 [=====]
Installing      : terraform-1.14.4-1.x86_64 [=====]
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Installing      : terraform-1.14.4-1.x86_64 [=====]
Installing      : terraform-1.14.4-1.x86_64 [=====]
Installing      : terraform-1.14.4-1.x86_64 [=====]
Installing      : terraform-1.14.4-1.x86_64 [=====]
Running scriptlet: terraform-1.14.4-1.x86_64
Verifying       : git-2.50.1-1.amzn2023.0.1.x86_64
Verifying       : git-core-2.50.1-1.amzn2023.0.1.x86_64
Verifying       : git-core-doc-2.50.1-1.amzn2023.0.1.noarch
Verifying       : perl-Error-1:0.17029-5.amzn2023.0.2.noarch
Verifying       : perl-File-Find-1.37-477.amzn2023.0.7.noarch
Verifying       : perl-Git-2.50.1-1.amzn2023.0.1.noarch
Verifying       : perl-TermReadKey-2.38-9.amzn2023.0.2.x86_64
Verifying       : perl-lib-0.65-477.amzn2023.0.7.x86_64
Verifying       : terraform-1.14.4-1.x86_64
Installed:
git-2.50.1-1.amzn2023.0.1.x86_64      git-core-2.50.1-1.amzn2023.0.1.x86_64      git-core-doc-2.50.1-1.amzn2023.0.1.noarch      perl-Error-1:0.17029-5.amzn2023.0.2.noarch
perl-Git-2.50.1-1.amzn2023.0.1.noarch  perl-TermReadKey-2.38-9.amzn2023.0.2.x86_64  perl-lib-0.65-477.amzn2023.0.7.x86_64      terraform-1.14.4-1.x86_64

Complete!
[root@ip-172-31-27-108 ~]# terraform -version
Terraform v1.14.4
on linux_amd64
[root@ip-172-31-27-108 ~]#

```

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]#

```



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EC2

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Instances (1) [Info](#)

Find Instance by attribute or tag (case-sensitive)

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

Instances (1) [Info](#)

Running ▾

<input type="checkbox"/>	Name  ▾	Instance ID	Instance state ▾	Instance type ▾	Status check
<input type="checkbox"/>	TF-West-Instance	i-0ed12e83aee14e051	 Running  	t3.micro	 3/3 checks passed

