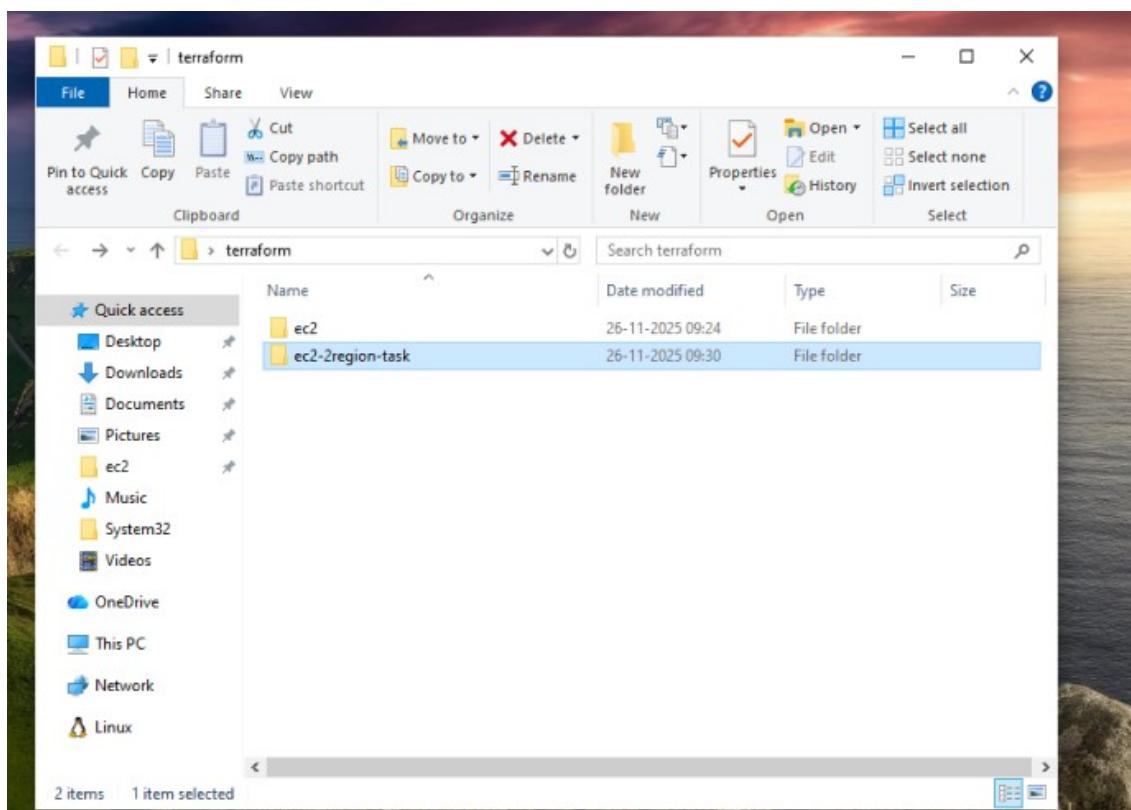


Terraform Task

Task Description:

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

- To do this task requirements: aws cli installed in windows
- b. open aws account and create admin access key iam role
 - c. aws configure in windows aws cli with access key and secret key, format as json
 - d. install terraform binary file in windows and save the path in environment variable
 - e. create a folder for terraform task



create main.tf file with hcl code

```
# --- Provider for first region ---
```

```
provider "aws" {  
    region = "ap-south-1"  
}
```

```
# --- Provider for second region ---
```

```

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

# --- EC2 in ap-south-1 ---

resource "aws_instance" "ec2_ap_south" {
  ami = "ami-0d176f79571d18a8f" # Amazon Linux 2 for ap-south-1
  instance_type = "t3.micro"

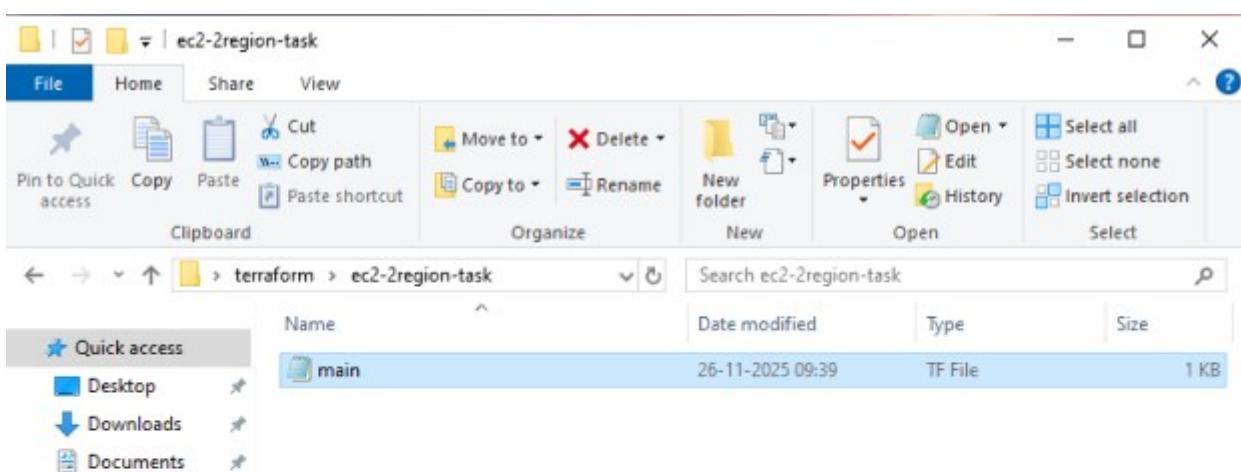
  tags = {
    Name = "ec2-ap-south-1"
  }
}

# --- EC2 in us-east-1 ---

resource "aws_instance" "ec2_us_east" {
  provider = aws.us
  ami      = "ami-0fa3fe0fa7920f68e" # Amazon Linux 2 for us-east-1
  instance_type = "t3.micro"

  tags = {
    Name = "ec2-us-east-1"
  }
}

```



Screenshot of the AWS EC2 Instances Launch an instance page for the Asia Pacific (Mumbai) region.

Amazon Machine Image (AMI)

Amazon Linux 2023 kernel-6.1 AMI
ami-0d176f79571d18a8f (64-bit (x86), uefi-preferred) / ami-0bdf6fbe8c9e0565a (64-bit (Arm), uefi)
Virtualization: hvm ENA enabled: true Root device type: ebs

Description

Amazon Linux 2023 (kernel-6.1) is a modern, general purpose Linux-based OS that comes with 5 years of long term support optimized for AWS and designed to provide a secure, stable and high-performance execution environment to develop and run your cloud applications.

Amazon Linux 2023 AMI 2023.9.20251117.1 x86_64 HVM kernel-6.1

Architecture	Boot mode	AMI ID	Publish Date	Username
64-bit (x... ▾)	uefi-preferred	ami-0d176f79571d18a8f	2025-11-17	ec2-user

Verified provider

Regions

- United States**
 - N. Virginia us-east-1
 - Ohio us-east-2
 - N. California us-west-1
 - Oregon us-west-2
- Asia Pacific**
 - Mumbai ap-south-1
 - Osaka ap-northeast-3
 - Seoul ap-northeast-2
 - Singapore ap-southeast-1
 - Sydney ap-southeast-2
 - Tokyo ap-northeast-1
- Canada**
 - Central ca-central-1

Actions

- Manage Regions
- Manage Local Zones
- Launch instance
- Preview code

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Screenshot of the AWS EC2 Instances Launch an instance page for the United States (N. Virginia) region.

Amazon Machine Image (AMI)

Amazon Linux 2023 kernel-6.1 AMI
ami-0fa3fe0fa7920f68e (64-bit (x86), uefi-preferred) / ami-0dda28e5df2d25176 (64-bit (Arm), uefi)
Virtualization: hvm ENA enabled: true Root device type: ebs

Description

Amazon Linux 2023 (kernel-6.1) is a modern, general purpose Linux-based OS that comes with 5 years of long term support optimized for AWS and designed to provide a secure, stable and high-performance execution environment to develop and run your cloud applications.

Amazon Linux 2023 AMI 2023.9.20251117.1 x86_64 HVM kernel-6.1

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Verified provider

Regions

- United States**
 - N. Virginia us-east-1
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 - N. California us-west-1
 - Oregon us-west-2
- Asia Pacific**
 - Mumbai ap-south-1
 - Osaka ap-northeast-3
 - Seoul ap-northeast-2
 - Singapore ap-southeast-1
 - Sydney ap-southeast-2
 - Tokyo ap-northeast-1
- Canada**
 - Central ca-central-1

Actions

- Manage Regions
- Manage Local Zones
- Launch instance
- Preview code

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```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.6456]
(c) Microsoft Corporation. All rights reserved.

C:\Users\windows\Desktop\terraform\ec2-2region-task>terraform init
Initializing the backend...
Initializing provider plugins...
- Finding latest version of hashicorp/aws...
- Installing hashicorp/aws v6.22.1...
- Installed hashicorp/aws v6.22.1 (signed by HashiCorp)
Terraform has created a lock file .terraform.lock.hcl to record the provider
selections it made above. Include this file in your version control repository
so that Terraform can guarantee to make the same selections by default when
you run "terraform init" in the future.

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.

C:\Users\windows\Desktop\terraform\ec2-2region-task>
```

```
C:\Users\windows\Desktop\terraform\ec2-2region-task>
C:\Users\windows\Desktop\terraform\ec2-2region-task>terraform validate
Success! The configuration is valid.

C:\Users\windows\Desktop\terraform\ec2-2region-task>
```

```
C:\Windows\System32\cmd.exe
+ ebs_block_device (known after apply)
+ enclave_options (known after apply)
+ ephemeral_block_device (known after apply)
+ instance_market_options (known after apply)
+ maintenance_options (known after apply)
+ metadata_options (known after apply)
+ network_interface (known after apply)
+ primary_network_interface (known after apply)
+ private_dns_name_options (known after apply)
+ root_block_device (known after apply)
}

Plan: 2 to add, 0 to change, 0 to destroy.

Note: You didn't use the -out option to save this plan, so Terraform can't guarantee to take exactly these actions if
you run "terraform apply" now.

C:\Users\windows\Desktop\terraform\ec2-2region-task>
```

```
C:\Windows\System32\cmd.exe

+ metadata_options (known after apply)
+ network_interface (known after apply)
+ primary_network_interface (known after apply)
+ private_dns_name_options (known after apply)
+ root_block_device (known after apply)
}

Plan: 2 to add, 0 to change, 0 to destroy.

Do you want to perform these actions?
Terraform will perform the actions described above.
Only 'yes' will be accepted to approve.

Enter a value: yes

aws_instance.ec2_ap_south: Creating...
aws_instance.ec2_us_east: Creating...
aws_instance.ec2_ap_south: Still creating... [00m10s elapsed]
aws_instance.ec2_us_east: Still creating... [00m10s elapsed]
aws_instance.ec2_ap_south: Creation complete after 13s [id=i-004c686914e9f19bc]
aws_instance.ec2_us_east: Creation complete after 16s [id=i-02aef45c6c5166a22]

Apply complete! Resources: 2 added, 0 changed, 0 destroyed.

C:\Users\windows\Desktop\terraform\ec2-2region-task>
```

The screenshot shows the AWS CloudWatch Metrics Insights interface. A search bar at the top contains the query: `CloudWatch Metrics Insights usage`. Below the search bar, there's a table with two columns: `Region` and `Value`. The table shows data for three regions: N. Virginia, US West (Oregon), and US East (Ohio). The values are 1, 1, and 1 respectively. At the bottom of the table, there are buttons for `Next >`, `Previous <`, and `Run`.

Region	Value
N. Virginia	1
US West (Oregon)	1
US East (Ohio)	1

Screenshot of the AWS EC2 Instances page showing two instances: 'ec2-ap-south-1' (Running, t3.micro) and 'terraform-Ec2' (Terminated, t3.micro).

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
ec2-ap-south-1	i-004c686914e9f19bc	Running	t3.micro	Initializing	View alarms +	ap-south-1t
terraform-Ec2	i-02520960aa2fb9ced	Terminated	t3.micro	-	View alarms +	ap-south-1t

```
C:\Users\windows\Desktop\terraform\ec2-2region-task>terraform destroy
aws_instance.ec2_ap_south: Refreshing state... [id=i-004c686914e9f19bc]
aws_instance.ec2_us_east: Refreshing state... [id=i-02aeef45c6c5166a22]

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
- destroy

Terraform will perform the following actions:

# aws_instance.ec2_ap_south will be destroyed
- resource "aws_instance" "ec2_ap_south" {
    - ami
    - arn
    - associate public ip address
}

5 items   1 item selected 659 bytes
```

Screenshot of the AWS EC2 Instances page showing the same two terminated instances.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
ec2-ap-south-1	i-004c686914e9f19bc	Terminated	t3.micro	-	View alarms +	ap-south-1t
terraform-Ec2	i-02520960aa2fb9ced	Terminated	t3.micro	-	View alarms +	ap-south-1t