



Software Provisioning and Configuration Management

LAB FILE SUBMITTED BY:

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BATCH: 1 Devops

ASSIGNMENT 1

Write Terraform script to do perform following tasks on AWS cloud Platform

First create a IAM user and attach [AdministratorAccess](#) policy to it also create access key for this user and download it

palak-user_accessKeys-3

Access key ID	Secret access key
AKIAQMEY6IA6ULZVXAVS	PcKZJQhcPeFoCJMSQ/gxm/zp7Ctr+ZeF0eTj1fOR

The screenshot shows the AWS IAM Users page. On the left, there's a navigation sidebar with 'Identity and Access Management (IAM)' selected. The main area displays a table of users. One user, 'palak_user', is listed with the following details:

User name	Path	Group	Last activity	MFA	Password age	Console last sign-in
palak_user	/	0	-	-	-	-

At the top right of the user table, there are 'Delete' and 'Create user' buttons. The browser address bar shows 'us-east-1.console.aws.amazon.com'. The tab bar includes 'Only Eating Viral Healthy TikTok Recipes for 24 HOURS...', 'Untitled document - Google Docs', 'Terraform AWS Infrastructure', and 'Users | IAM | Global'. The user 'Palak_Gupta' is logged in.

Step 1: Create two T2 Micro EC2 Instances.

Now in any text editor create a folder and add two files named:

main.tf

This file contain the provider information and access key and secret key to connect to your IAM user

```
vpn > ᐃ main.tf > ⌂ provider "aws"
  1  terraform {
  2    required_providers {
  3      aws = {
  4        source = "hashicorp/aws"
  5        version = "5.95.0"
  6      }
  7    }
  8  }
  9
10  provider "aws" {
11    access_key = "AKIAQMEY6IA6ULZVXAVS"
12    secret_key = "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"
13    region = "us-east-1"
14 }
```

variable.tf

This file contains the information about the resource you want to create. When creating a ec2 we need to provide the ami and type of the instance we want to create. I have also provided the count of instances as 2.

```
variable.tf > ✎ resource "aws_instance" "ec2"
1   resource "aws_instance" "ec2" {
2     ami = "ami-0e449927258d45bc4"
3     instance_type = "t2.micro"
4     count = 2
5
6     tags = {
7       Name = "palak-ec2"
8     }
9 }
```

In order to use terraform it is essential to first use the command : terraform init

```
● palakgupta@Palaks-MacBook-Air assignment-1 % cd vpn
● palakgupta@Palaks-MacBook-Air vpn % terraform init
  Initializing the backend...
  Initializing provider plugins...
    - Finding hashicorp/aws versions matching "5.95.0"...
    - Installing hashicorp/aws v5.95.0...
    - Installed hashicorp/aws v5.95.0 (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.
```

Then to confirm your changes you can use terraform plan to see what all changes will be made, here we can see 2 ec2 instance of type t2.micro will be created

```
+ capacity_reservation_specification (known after apply)
+ cpu_options (known after apply)
+ 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)
+ 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
○ palakgupta@192 assignment-1 %
```

To apply these changes terraform apply or terraform apply -auto-approve (does not ask for verification) is used

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
+ 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)  
+ 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[0]: Creating...  
aws_instance.ec2[1]: Creating...  
aws_instance.ec2[1]: Still creating... [10s elapsed]  
aws_instance.ec2[0]: Still creating... [10s elapsed]  
aws_instance.ec2[0]: Creation complete after 18s [id=i-082330fba57171264]  
aws_instance.ec2[1]: Creation complete after 18s [id=i-0080dc5522e47fa2]
```

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

○ palakgupta@Palaks-MacBook-Air assignment-1 %

We can view our changes via logging into our console

The screenshot shows the AWS EC2 Instances page. The left sidebar is collapsed, and the main area displays the following information:

Instances (2) Info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
palak-ec2	i-0080dc5522e47fa2	Running	t2.micro	Initializing	View alarms +	us-east-1a
palak-ec2	i-082330fba57171264	Running	t2.micro	Initializing	View alarms +	us-east-1a

Select an instance

At the bottom of the page, there are links for CloudShell, Feedback, Privacy, Terms, and Cookie preferences.

To discard the changes made use terraform destroy or terraform destroy -auto-approve. This will delete the changes made earlier

```

○ palakgupta@Palaks-MacBook-Air assignment-1 % terraform destroy -auto-approve
aws_instance.ec2[1]: Refreshing state... [id=i-0080dc55222e47fa2]
aws_instance.ec2[0]: Refreshing state... [id=i-082330fba57171264]

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[0] will be destroyed
resource "aws_instance" "ec2" {
    ami                               = "ami-0e449927258d45bc4" -> null
    arn                             = "arn:aws:ec2:us-east-1:026090553405:instance/i-082330fba57171264" -> null
    associate_public_ip_address      = true -> null
    availability_zone                = "us-east-1a" -> null
    cpu_core_count                  = 1 -> null
    cpu_threads_per_core            = 1 -> null
    disable_api_stop                = false -> null
    disable_api_termination         = false -> null
    ebs_optimized                   = false -> null
    get_password_data               = false -> null
    hibernation                     = false -> null
    id                               = "i-082330fba57171264" -> null
    instance_initiated_shutdown_behavior = "stop" -> null
    instance_state                  = "running" -> null
    instance_type                   = "t2.micro" -> null
    ipv6_address_count              = 0 -> null
    ipv6_addresses                 = [] -> null
    monitoring                      = false -> null
    placement_partition_number       = 0 -> null
    primary_network_interface_id    = "eni-090cf519afedffe0b" -> null
    private_dns                      = "ip-172-31-22-14.ec2.internal" -> null
    private_ip                       = "172.31.22.14" -> null
    public_dns                       = "ec2-54-175-42-74.compute-1.amazonaws.com" -> null
    public_ip                        = "54.175.42.74" -> null
    secondary_private_ips           = [] -> null
    security_groups                 = [
        - "default",
        ] -> null
    source_dest_check                = true -> null
    subnet_id                         = "subnet-01bb354a11d3835b9" -> null
    tags                             = {
        - "Name" = "palak-ec2"
    } -> null
    tags.all                          = {
        - "Name" = "palak-ec2"
    } -> null
    tenancy                           = "default" -> null
    user_data_replace_on_change      = false -> null
    vpc_security_group_ids           = [
        - "sg-0ba5641f098abf84",
    ] -> null
}

Ln 9, Col 2  Spaces: 2  UTF-8  LF  {} Terraform  □

```

```

Plan: 0 to add, 0 to change, 2 to destroy.
aws_instance.ec2[0]: Destroying... [id=i-082330fba57171264]
aws_instance.ec2[1]: Destroying... [id=i-0080dc55222e47fa2]
aws_instance.ec2[0]: Still destroying... [id=i-082330fba57171264, 10s elapsed]
aws_instance.ec2[1]: Still destroying... [id=i-0080dc55222e47fa2, 10s elapsed]
aws_instance.ec2[0]: Still destroying... [id=i-082330fba57171264, 20s elapsed]
aws_instance.ec2[1]: Still destroying... [id=i-0080dc55222e47fa2, 20s elapsed]
aws_instance.ec2[0]: Still destroying... [id=i-082330fba57171264, 30s elapsed]
aws_instance.ec2[1]: Still destroying... [id=i-0080dc55222e47fa2, 30s elapsed]
aws_instance.ec2[0]: Destruction complete after 33s
aws_instance.ec2[1]: Still destroying... [id=i-0080dc55222e47fa2, 40s elapsed]
aws_instance.ec2[1]: Destruction complete after 44s

Destroy complete! Resources: 2 destroyed.
○ palakgupta@Palaks-MacBook-Air assignment-1 %

```

The screenshot shows the AWS EC2 Instances page. The left sidebar is collapsed, showing the main navigation menu. The main content area displays a table of instances. The table has columns for Name, Instance ID, Instance state, Instance type, Status check, Alarm status, and Availability Zone. There are two entries:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
palak-ec2	i-0080dc5522e47fa2	Terminated	t2.micro	-	View alarms	us-east-1a
palak-ec2	i-082330fba57171264	Terminated	t2.micro	-	View alarms	us-east-1a

Below the table, a section titled "Select an instance" is visible. At the bottom of the page, there are links for CloudShell, Feedback, Privacy, Terms, and Cookie preferences.

Step2: Create a VPN on AWS

In the same project folder, create new main.tf and vpc.tf .

In main.tf, keep the same provider block with access and secret keys from your IAM user.

```
vpn > 🌐 main.tf > 🔍 provider "aws"
1   terraform {
2     required_providers {
3       aws = {
4         source = "hashicorp/aws"
5         version = "5.95.0"
6       }
7     }
8   }
9
10  provider "aws" {
11    access_key = "AKIAQMEY6IA6ULZVXAVS"
12    secret_key = "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"
13    region = "us-east-1"
14 }
```

Use Terraform resources to create:

- A Virtual Private Gateway using `aws_vpn_gateway`
- A Customer Gateway using `aws_customer_gateway` (requires a static IP)
- A VPN Connection using `aws_vpn_connection`
- Optionally, use `aws_vpn_gateway_attachment` to attach the VPN to your existing VPC

```
vpn > vpc.tf > resource "aws_route_table" "public_rt"
1   resource "aws_vpc" "my_vpc" {
2     cidr_block = "10.0.0.0/16"
3
4     tags = {
5       Name = "my-vpc"
6     }
7   }
8   resource "aws_subnet" "public_subnet" {
9     vpc_id          = aws_vpc.my_vpc.id
10    cidr_block      = "10.0.1.0/24"
11    map_public_ip_on_launch = true
12    availability_zone = "us-east-1a"
13
14    tags = {
15      Name = "my-public-subnet"
16    }
17  }
18
19  resource "aws_internet_gateway" "igw" {
20    vpc_id = aws_vpc.my_vpc.id
21
22    tags = {
23      Name = "my-igw"
24    }
25  }
26
27  resource "aws_route_table" "public_rt" {
28    vpc_id = aws_vpc.my_vpc.id
29
30    route {
31      cidr_block = "0.0.0.0/0"
32      gateway_id = aws_internet_gateway.igw.id
33    }
34
35    tags = {
36      Name = "public-rt"
37    }
38  }
39  resource "aws_route_table_association" "public_association" {
40    subnet_id      = aws_subnet.public_subnet.id
41    route_table_id = aws_route_table.public_rt.id
42  }
```

```
● palakgupta@Palaks-MacBook-Air assignment-1 % cd vpn
● palakgupta@Palaks-MacBook-Air vpn % terraform init
  Initializing the backend...
  Initializing provider plugins...
    - Finding hashicorp/aws versions matching "5.95.0"...
    - Installing hashicorp/aws v5.95.0...
    - Installed hashicorp/aws v5.95.0 (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.

```
# aws_vpc.my_vpc will be created
+ resource "aws_vpc" "my_vpc" {
    + arn                                = (known after apply)
    + cidr_block                         = "10.0.0.0/16"
    + default_network_acl_id             = (known after apply)
    + default_route_table_id             = (known after apply)
    + default_security_group_id          = (known after apply)
    + dhcp_options_id                   = (known after apply)
    + enable_dns_hostnames              = (known after apply)
    + enable_dns_support                = true
    + enable_network_address_usage_metrics = (known after apply)
    + id                                 = (known after apply)
    + instance_tenancy                  = "default"
    + ipv6_association_id               = (known after apply)
    + ipv6_cidr_block                   = (known after apply)
    + ipv6_cidr_block_network_border_group = (known after apply)
    + main_route_table_id               = (known after apply)
    + owner_id                           = (known after apply)
    + tags                               = {
        + "Name" = "my-vpc"
    }
    + tags_all                          = {
        + "Name" = "my-vpc"
    }
}
```

Plan: 5 to add, 0 to change, 0 to destroy.

```

# aws_vpc.my_vpc will be created
+ resource "aws_vpc" "my_vpc" {
    + arn
    + cidr_block
    + default_network_acl_id
    + default_route_table_id
    + default_security_group_id
    + dhcp_options_id
    + enable_dns_hostnames
    + enable_dns_support
    + enable_network_address_usage_metrics
    + id
    + instance_tenancy
    + ipv6_association_id
    + ipv6_cidr_block
    + ipv6_cidr_block_network_border_group
    + main_route_table_id
    + owner_id
    + tags
        + "Name" = "my-vpc"
    }
+ tags_all
    + "Name" = "my-vpc"
}
}

Plan: 5 to add, 0 to change, 0 to destroy.
aws_vpc.my_vpc: Creating...
aws_vpc.my_vpc: Creation complete after 4s [id=vpc-090d438172e7f7491]
aws_internet_gateway.igw: Creating...
aws_subnet.public_subnet: Creating...
aws_internet_gateway.igw: Creation complete after 2s [id=igw-0c09a197f26820600]
aws_route_table.public_rt: Creating...
aws_route_table.public_rt: Creation complete after 3s [id=rtb-056f93e8fdd0ce30a]
aws_subnet.public_subnet: Still creating... [10s elapsed]
aws_subnet.public_subnet: Creation complete after 13s [id=subnet-04a59bf5f0f91f75d]
aws_route_table_association.public_association: Creating...
aws_route_table_association.public_association: Creation complete after 2s [id=rtbassoc-02b149137501ef980]

Apply complete! Resources: 5 added, 0 changed, 0 destroyed.
○ palakgupta@Palaks-MacBook-Air vpn %

```

VPC

You can verify the setup in the AWS Console by navigating to VPC

Name	VPC ID	State	Block Public...	IPv4 CIDR	IPv6 CIDR
my-vpc	vpc-090d438172e7f7491	Available	Off	10.0.0.0/16	-
-	vpc-024a06cd711327a79	Available	Off	172.31.0.0/16	-

Subnet

The screenshot shows the AWS VPC Subnets page. On the left, there's a sidebar with 'VPC dashboard' and various navigation links like EC2 Global View, Filter by VPC, Virtual private cloud, Security, PrivateLink and Lattice, and CloudShell.

The main area displays a table titled 'Subnets (7) Info'. The table has columns for Name, Subnet ID, State, VPC, and Block Public... (with Off selected). The subnets listed are:

Name	Subnet ID	State	VPC	Block Public...
my-public-subnet	subnet-04a59bf5f0f91f75d	Available	vpc-090a438172e7f491 my...	Off
-	subnet-00e07f414d0aa20f5	Available	vpc-024a06cd711327a79	Off
-	subnet-01bb354a11d3835b9	Available	vpc-024a06cd711327a79	Off
-	subnet-06b5966a6836b54d1	Available	vpc-024a06cd711327a79	Off
-	subnet-02ed4a4914588590f	Available	vpc-024a06cd711327a79	Off
-	subnet-091f9c1d0226f350e	Available	vpc-024a06cd711327a79	Off
-	subnet-04fe859f409e2e391	Available	vpc-024a06cd711327a79	Off

Below the table, there's a section titled 'Select a subnet' with three icons: a square, a rectangle, and a circle.

Internet gateway

Screenshot of the AWS VPC Internet Gateways page.

Internet gateways (2) Info

Name	Internet gateway ID	State	VPC ID	Owner
-	igw-0257748389fa328d8	Attached	vpc-024a06cd711327a79	026090:
my-igw	igw-0c09a19f26820600	Attached	vpc-090d438172e7f7491 my-vpc	026090:

Select an internet gateway above

VPC dashboard

- EC2 Global View
- Filter by VPC
- Virtual private cloud**
 - Your VPCs
 - Subnets
 - Route tables
 - Internet gateways**
 - Egress-only internet gateways
 - Carrier gateways
 - DHCP option sets
 - Elastic IPs
 - Managed prefix lists
 - NAT gateways
 - Peering connections
 - Route servers New
- Security**
 - Network ACLs
 - Security groups

Route table

Screenshot of the AWS Route Tables page.

Route tables (3) Info

Name	Route table ID	Explicit subnet associ...	Edge associations	Main	VPC
-	rtb-0f12da909411073a7	-	-	Yes	vpc-090d43817:
-	rtb-01b2848894dd6c714	-	-	Yes	vpc-024a06cd71:
public-rt	rtb-056f95e8fd0ce30a	subnet-04a59bf5f0f91f...	-	No	vpc-090d43817:

Select a route table

VPC dashboard

- EC2 Global View
- Filter by VPC
- Virtual private cloud**
 - Your VPCs
 - Subnets
 - Route tables**
 - Internet gateways
 - Egress-only internet gateways
 - Carrier gateways
 - DHCP option sets
 - Elastic IPs
 - Managed prefix lists
 - NAT gateways
 - Peering connections
 - Route servers New
- Security**
 - Network ACLs
 - Security groups
- PrivateLink and Lattice**
 - Getting started Updated
 - Endpoints Updated
 - Endpoint services

```

# aws_vpc.my_vpc will be destroyed
- resource "aws_vpc" "my_vpc" {
    - arn = "arn:aws:ec2:us-east-1:026090553405:vpc/vpc-090d438172e7f7491" -> null
    - assign_generated_ipv6_cidr_block = false -> null
    - cidr_block = "10.0.0.0/16" -> null
    - default_network_acl_id = "acl-03e468a0b88498025" -> null
    - default_route_table_id = "rtb-0f12da909411073a7" -> null
    - default_security_group_id = "sg-077df9ade9f65a5f2" -> null
    - dhcp_options_id = "dopt-0918aed1e65e814cc" -> null
    - enable_dns_hostnames = false -> null
    - enable_dns_support = true -> null
    - enable_network_address_usage_metrics = false -> null
    - id = "vpc-090d438172e7f7491" -> null
    - instance_tenancy = "default" -> null
    - ipv6_netmask_length = 0 -> null
    - main_route_table_id = "rtb-0f12da909411073a7" -> null
    - owner_id = "026090553405" -> null
    - tags = {
        - "Name" = "my-vpc"
    } -> null
    - tags_all = {
        - "Name" = "my-vpc"
    } -> null
    # (4 unchanged attributes hidden)
}

Plan: 0 to add, 0 to change, 5 to destroy.
aws_route_table_association.public_association: Destroying... [id=rtbassoc-02b149137501ef980]
aws_route_table_association.public_association: Destruction complete after 2s
aws_route_table.public_rt: Destroying... [id=rtb-056f93e8bdd0ce30a]
aws_subnet.public_subnet: Destroying... [id=subnet-04a59bf5f0f91f75d]
aws_subnet.public_subnet: Destruction complete after 2s
aws_route_table.public_rt: Destruction complete after 2s
aws_internet_gateway.igw: Destroying... [id=igw-0c09a197f26820600]
aws_internet_gateway.igw: Destruction complete after 1s
aws_vpc.my_vpc: Destroying... [id=vpc-090d438172e7f7491]
aws_vpc.my_vpc: Destruction complete after 1s

Destroy complete! Resources: 5 destroyed.
palakgupta@Palaks-MacBook-Air vpn %

```

The screenshot shows the AWS VPC dashboard with the following details:

- Region:** us-east-1.console.aws.amazon.com
- User:** palak-user @ 0260-9055-3405
- Your VPCs (1) Info:**
 - Last updated: less than a minute ago
 - Actions: Create VPC
- VPC ID:** vpc-024a06cd711327a79
- State:** Available
- Block Public:** Off
- IPv4 CIDR:** 172.31.0.0/16
- IPv6 CIDR:** -

The left sidebar includes navigation links for VPC dashboard, EC2 Global View, Virtual private cloud (Your VPCs, Subnets, Route tables, Internet gateways, Egress-only internet gateways, Carrier gateways, DHCP option sets, Elastic IPs, Managed prefix lists, NAT gateways, Peering connections, Route servers), Security (Network ACLs, Security groups), and PrivateLink and Lattice (Getting started, Endpoints, Endpoint services).

Step 3: Create a S3 Bucket

In the same project folder, create new main.tf and resource.tf .

In main.tf, keep the same provider block with access and secret keys from your IAM user.

```
vpn > ᐃ main.tf > 📁 provider "aws"
1   terraform {
2     required_providers {
3       aws = {
4         source = "hashicorp/aws"
5         version = "5.95.0"
6       }
7     }
8   }
9
10 provider "aws" {
11   access_key = "AKIAQMEY6IA6ULZVXAVS"
12   secret_key = "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"
13   region = "us-east-1"
14 }
```

Define the aws_s3_bucket resource with a unique bucket name.

```
s3 > ᐃ resource.tf > 📁 resource "aws_s3_bucket" "my_
1   resource "aws_s3_bucket" "my_bucket" {
2     bucket = "palak-bucket-26"
3
4     tags = {
5       Name = "palak-bucket"
6     }
7   }
8 }
```

```
● palakgupta@Palaks-MacBook-Air vpn % cd ..
● palakgupta@Palaks-MacBook-Air assignment-1 % cd s3
● palakgupta@Palaks-MacBook-Air s3 % terraform init
  Initializing the backend...
  Initializing provider plugins...
    - Finding hashicorp/aws versions matching "5.95.0"...
    - Installing hashicorp/aws v5.95.0...
    - Installed hashicorp/aws v5.95.0 (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.

```
○ palakgupta@Palaks-MacBook-Air s3 %
```

```
+ tags_all          = {
  + "Name" = "palak-bucket"
}
+ website_domain     = (known after apply)
+ website_endpoint   = (known after apply)

+ cors_rule (known after apply)
+ grant (known after apply)
+ lifecycle_rule (known after apply)
+ logging (known after apply)
+ object_lock_configuration (known after apply)
+ replication_configuration (known after apply)
+ server_side_encryption_configuration (known after apply)
+ versioning (known after apply)
+ website (known after apply)
}
```

Plan: 1 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

```
○ palakgupta@Palaks-MacBook-Air s3 %
```

```

palakgupta@Palaks-MacBook-Air s3 % terraform apply -auto-approve
Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
+ create

Terraform will perform the following actions:

# aws_s3_bucket.my_bucket will be created
+ resource "aws_s3_bucket" "my_bucket"
  + acceleration_status
  + acl
  + arn
  + bucket
  + bucket_domain_name = "palak-bucket-26"
  + bucket_prefix
  + bucketRegionalDomainName = (known after apply)
  + force_destroy
  + httpEndpoint
  + id
  + objectLockEnabled
  + policy
  + region
  + requestPayer
  + tags
    + "Name" = "palak-bucket"
  + tagsAll
    + "Name" = "palak-bucket"
  + websiteDomain
  + websiteEndpoint
  + corsRule (known after apply)
  + grant (known after apply)
  + lifecycleRule (known after apply)
  + logging (known after apply)
  + objectLockConfiguration (known after apply)
  + replicationConfiguration (known after apply)
  + serverSideEncryptionConfiguration (known after apply)
  + versioning (known after apply)
  + website (known after apply)

Plan: 1 to add, 0 to change, 0 to destroy.
aws_s3_bucket.my_bucket: Creating...
aws_s3_bucket.my_bucket: Creation complete after 6s [id=palak-bucket-26]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
palakgupta@Palaks-MacBook-Air s3 %

```

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Amazon S3

- General purpose buckets
- Directory buckets
- Table buckets
- Access Grants
- Access Points
- Object Lambda Access Points
- Multi-Region Access Points
- Batch Operations
- IAM Access Analyzer for S3

Block Public Access settings for this account

Storage Lens

- Dashboards
- Storage Lens groups
- AWS Organizations settings

Feature spotlight 11

AWS Marketplace for S3

Account snapshot - updated every 24 hours All AWS Regions

Storage lens provides visibility into storage usage and activity trends. Metrics don't include directory buckets. [Learn more](#)

General purpose buckets | **Directory buckets**

Name	AWS Region	IAM Access Analyzer	Creation date
palak-bucket-26	US East (N. Virginia) us-east-1	View analyzer for us-east-1	April 21, 2025, 13:48:43 (UTC+05:30)

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```
● palakgupta@Palaks-MacBook-Air s3 % terraform destroy -auto-approve
aws_s3_bucket.my_bucket: Refreshing state... [id=palak-bucket-26]

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_s3_bucket.my_bucket will be destroyed
- resource "aws_s3_bucket" "my_bucket" {
    - arn                  = "arn:aws:s3:::palak-bucket-26" -> null
    - bucket               = "palak-bucket-26" -> null
    - bucket_domain_name   = "palak-bucket-26.s3.amazonaws.com" -> null
    - bucketRegionalDomainName = "palak-bucket-26.s3.us-east-1.amazonaws.com" -> null
    - force_destroy         = false -> null
    - hosted_zone_id       = "Z3AQBSTGFYJSTF" -> null
    - id                   = "palak-bucket-26" -> null
    - object_lock_enabled  = false -> null
    - region               = "us-east-1" -> null
    - request_payer        = "BucketOwner" -> null
    - tags
        - "Name" = "palak-bucket"
    } -> null
    - tags_all             = {
        - "Name" = "palak-bucket"
    } -> null
    # (3 unchanged attributes hidden)

    - grant {
        - id          = "6105aafe8facbce97c5480b1d597043abce631c0930d1ff236ff2ce9b3a5f661" -> null
        - permissions = [
            - "FULL_CONTROL",
        ] -> null
        - type        = "CanonicalUser" -> null
        # (1 unchanged attribute hidden)
    }

    - server_side_encryption_configuration {
        - rule {
            - bucket_key_enabled = false -> null

            - apply_server_side_encryption_by_default {
                - sse_algorithm     = "AES256" -> null
                # (1 unchanged attribute hidden)
            }
        }
    }

    - versioning {
        - enabled      = false -> null
        - mfa_delete   = false -> null
    }
}

Plan: 0 to add, 0 to change, 1 to destroy.
aws_s3_bucket.my_bucket: Destroying... [id=palak-bucket-26]
aws_s3_bucket.my_bucket: Destruction complete after 1s

Destroy complete! Resources: 1 destroyed.
○ palakgupta@Palaks-MacBook-Air s3 %
```

Private < >

us-east-1.console.aws.amazon.com [Option+S]

Amazon S3 > Buckets

Amazon S3

General purpose buckets

- Directory buckets
- Table buckets
- Access Grants
- Access Points
- Object Lambda Access Points
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Block Public Access settings for this account

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Feature spotlight 11

AWS Marketplace for S3

Account snapshot - updated every 24 hours All AWS Regions

Storage lens provides visibility into storage usage and activity trends. Metrics don't include directory buckets. [Learn more](#)

View Storage Lens dashboard

General purpose buckets | Directory buckets

General purpose buckets (0) Info All AWS Regions

Buckets are containers for data stored in S3.

Find buckets by name

< 1 > ⚙️

Name	AWS Region	IAM Access Analyzer	Creation date
No buckets You don't have any buckets.			

Create bucket

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