

Terraform Tutorial Screenshots:

1) Installing Terraform:

<https://developer.hashicorp.com/terraform/tutorials/aws-get-started/install-cli>.

2) Creating resources:

The screenshot displays a CloudShell terminal window with a dark background. The terminal output shows the execution of the Terraform plan command, which lists various AWS resources being refreshed, including VPC, Internet Gateway, Security Group, Subnets, Route Tables, and an Instance. It then shows the execution of the Terraform apply command, which creates an AWS AutoScaling Group named 'suraj_asg' and associated resources like launch configuration, policy, and alarms. The output indicates that the resources were successfully created and applied.

```
root@ip-172-31-91-243:/home/ubuntu/terraform$ terraform plan
aws_vpc.main: Refreshing state... [id=vpc-05fddcf8eb6706753]
aws_internet_gateway.gw: Refreshing state... [id=igw-06e7e259fdcb20411]
aws_security_group.allow_port: Refreshing state... [id=sg-06b60a604fc6308ab]
aws_subnet.publicsubnet1c: Refreshing state... [id=subnet-05ef6b2ace51b4742]
aws_route_table.public_route_table: Refreshing state... [id=rtb-051eda4ac5f262051]
aws_subnet.publicsubnet1a: Refreshing state... [id=subnet-0dc2dd9404fe8c768]
aws_subnet.publicsubnet1b: Refreshing state... [id=subnet-03d94dca280408f99]
aws_route.Suraj_route: Refreshing state... [id=r-rtb-051eda4ac5f2620511080289494]
aws_route_table_association.public_route_table_1c_association: Refreshing state... [id=rtbassoc-09296e35ff63f4250]
aws_route_table_association.public_route_table_1a_association: Refreshing state... [id=rtbassoc-0ed896193798230ff]
aws_route_table_association.public_route_table_1b_association: Refreshing state... [id=rtbassoc-079dc39cb82f72a42]
aws_instance.this: Refreshing state... [id=i-0c0efab3d9ec83f28]

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_autoscaling_group.suraj_asg will be created
+ resource "aws_autoscaling_group" "suraj_asg" {
  + arn                               = (known after apply)
  + availability_zones                 = (known after apply)
  + launch_configuration               = (known after apply)
  + min_size                          = (known after apply)
  + name                              = (known after apply)
  + new_instances_protected_from_termination = (known after apply)
  + subnets                          = (known after apply)
  + tags                              = (known after apply)
  + vpc_subnets                      = (known after apply)
}

i-0fc00e97df34d8adc (saws)
PublicIPs: 44.211.130.218 PrivateIPs: 172.31.91.243
```

The screenshot also shows the AWS console interface at the top, with the 'Enter a value: yes' prompt and the 'Apply complete! Resources: 4 added, 0 changed, 0 destroyed.' message. The terminal output shows the creation of the 'suraj_asg' AutoScaling Group and the associated resources, including the launch configuration, policy, and alarms.

3) Terraform Version:

```
root@ip-172-31-91-243:/home/ubuntu/terra-form# terraform -v
Terraform v1.6.4
on linux_amd64
+ provider registry.terraform.io/hashicorp/aws v5.28.0
root@ip-172-31-91-243:/home/ubuntu/terra-form#
```

4) Autoscaling Group Using Terraform:

The screenshot shows the AWS Management Console for the 'us-east-1' region. The left sidebar contains navigation links for EC2 Dashboard, EC2 Global View, Events, Console-to-Code, Instances, Images, and Elastic Block Store. The main content area is titled 'Auto Scaling groups (3)' and includes a search bar and a table of existing groups.

Name	Launch template/configuration	Instances	Status	Desired capacity
suraj-autoscale_group	suraj_launch_config	1	-	1
terraform-20231129074306783300000001	example_config	2	-	2
aditya-autoscale_group	aditya_launch_config	1	-	1

The screenshot shows the details page for the 'suraj-autoscale_group'. The page has tabs for Details, Activity, Automatic scaling, Instance management, Monitoring, and Instance refresh. The 'Details' tab is active, showing a table of group details.

Auto Scaling group name	Desired capacity	Desired capacity type	Amazon Resource Name (ARN)
suraj-autoscale_group	1	Units (number of instances)	arn:aws:autoscaling:us-east-1:2:67092042432:autoScalingGroup:e79d68b9-afac-4642-9d18-52c20a70e4a1:autoScalingGroupName/suraj-autoscale_group

Additional details shown include Date created (Wed Nov 29 2023 15:14:56 GMT+0530 (India Standard Time)), Minimum capacity (1), Maximum capacity (3), and Status (-).

The 'Launch configuration' section is also visible, showing a table with columns for Launch configuration, AMI ID, Instance type, and Create time.