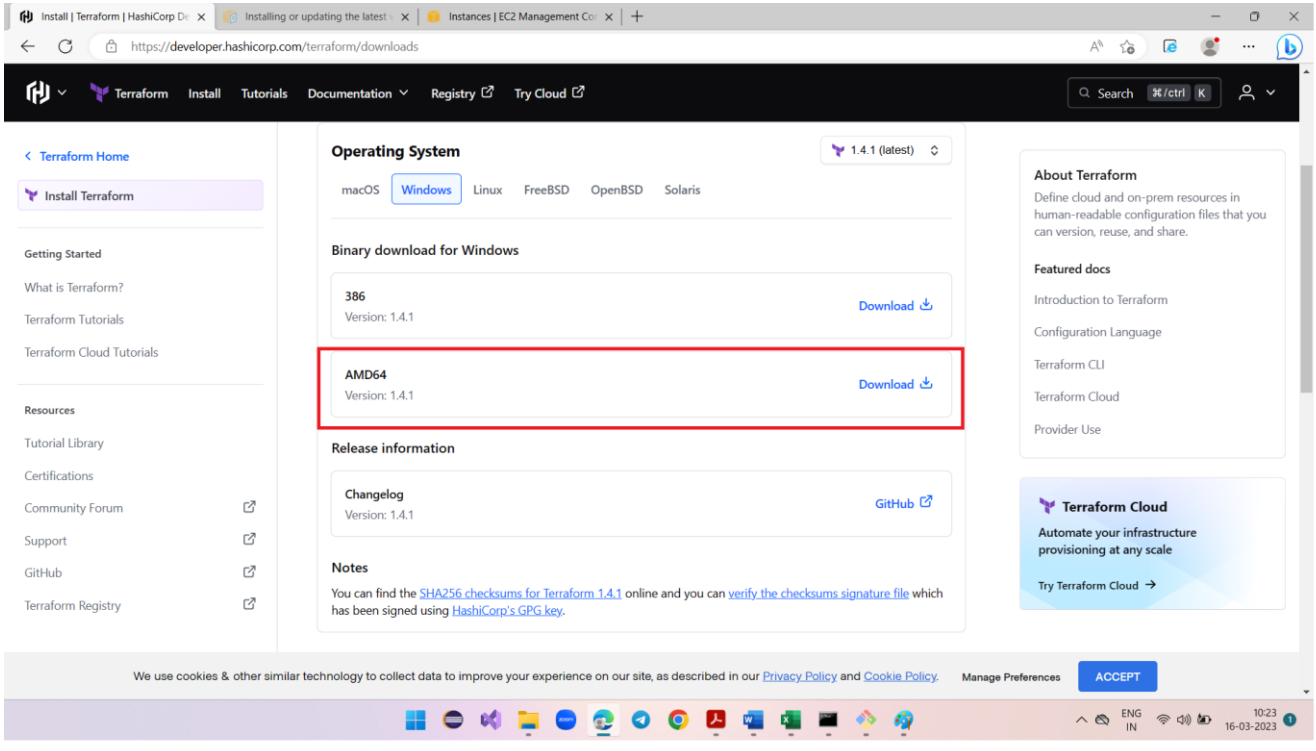
Terraform Assignment 1
BY Swapnil Jadhav

You have been hired as a DevOps Engineer for automating the configuration of an organization XYZ Pvt Ltd. The company would like to distribute its infrastructure across 3 cloud platform, AWS, Azure and GCP. The organization has decided to use Terraform to provision its infrastructure across these cloud platforms.
As a pilot project, organization would want you to provision the infrastructure on AWS environment.

You are requested to create an EC2 machine with following configuration.

1. Instance Name : Terraform hands-on

2. Instance type : t2.micro


Install | Terraform | HashiCorp
https://developer.hashicorp.com/terraform/downloads
Terraform
Install
Tutorials
Documentation
Registry
Try Cloud
Search ⌘/ctrl K
Terraform Home
Install Terraform
Getting Started
What is Terraform?
Terraform Tutorials
Terraform Cloud Tutorials
Resources
Tutorial Library
Certifications
Community Forum
Support
GitHub
Terraform Registry
Operating System
1.4.1 (latest)
macOS
Windows
Linux
FreeBSD
OpenBSD
Solaris
Binary download for Windows
386
Version: 1.4.1
Download
AMD64
Version: 1.4.1
Download
Release information
Changelog
Version: 1.4.1
GitHub
Notes
You can find the SHA256 checksums for Terraform 1.4.1 online and you can verify the checksums signature file which has been signed using HashiCorp's GPG key.
About Terraform
Define cloud and on-prem resources in human-readable configuration files that you can version, reuse, and share.
Featured docs
Introduction to Terraform
Configuration Language
Terraform CLI
Terraform Cloud
Provider Use
Terraform Cloud
Automate your infrastructure provisioning at any scale
Try Terraform Cloud
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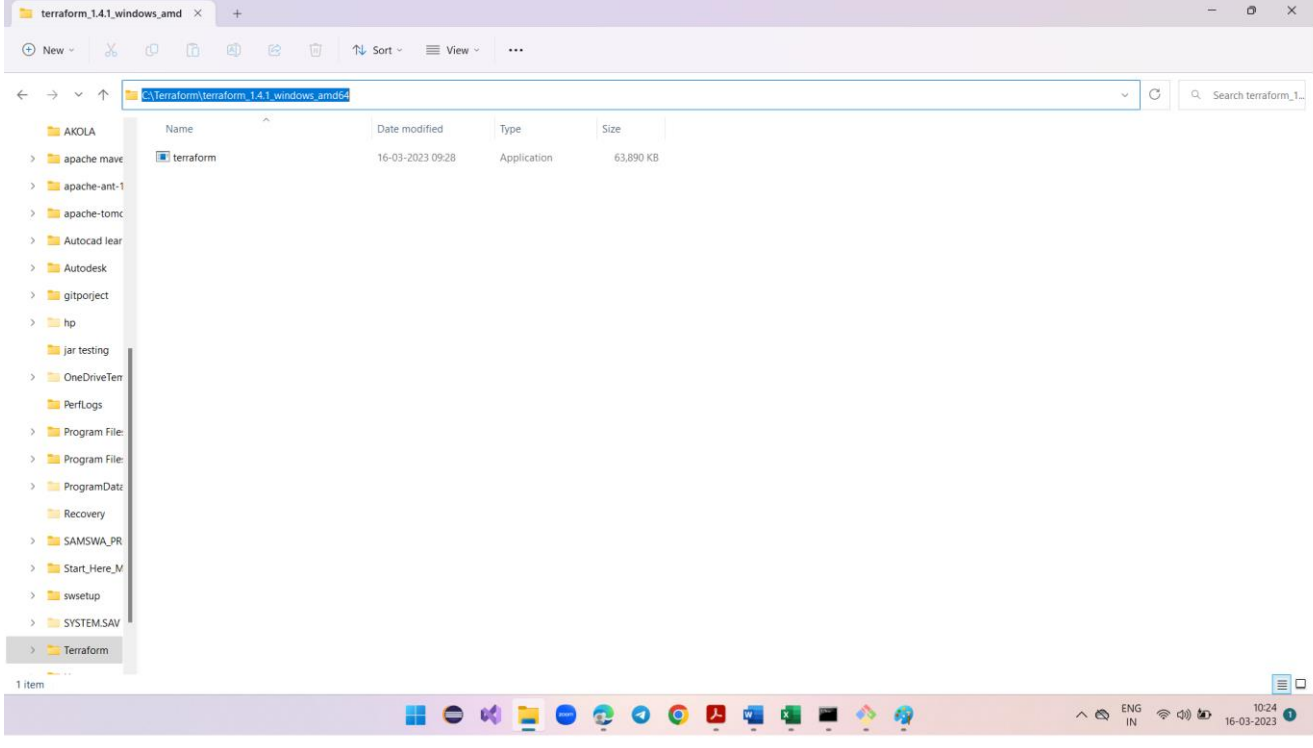
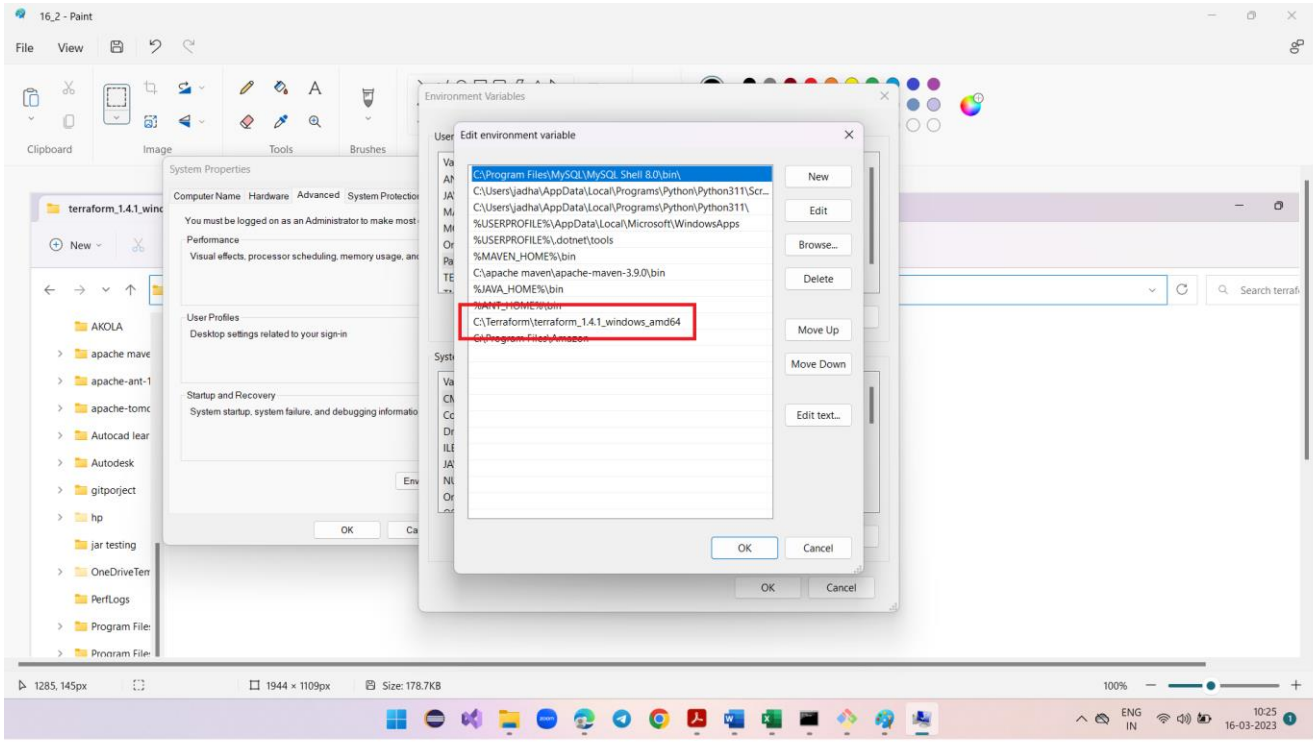
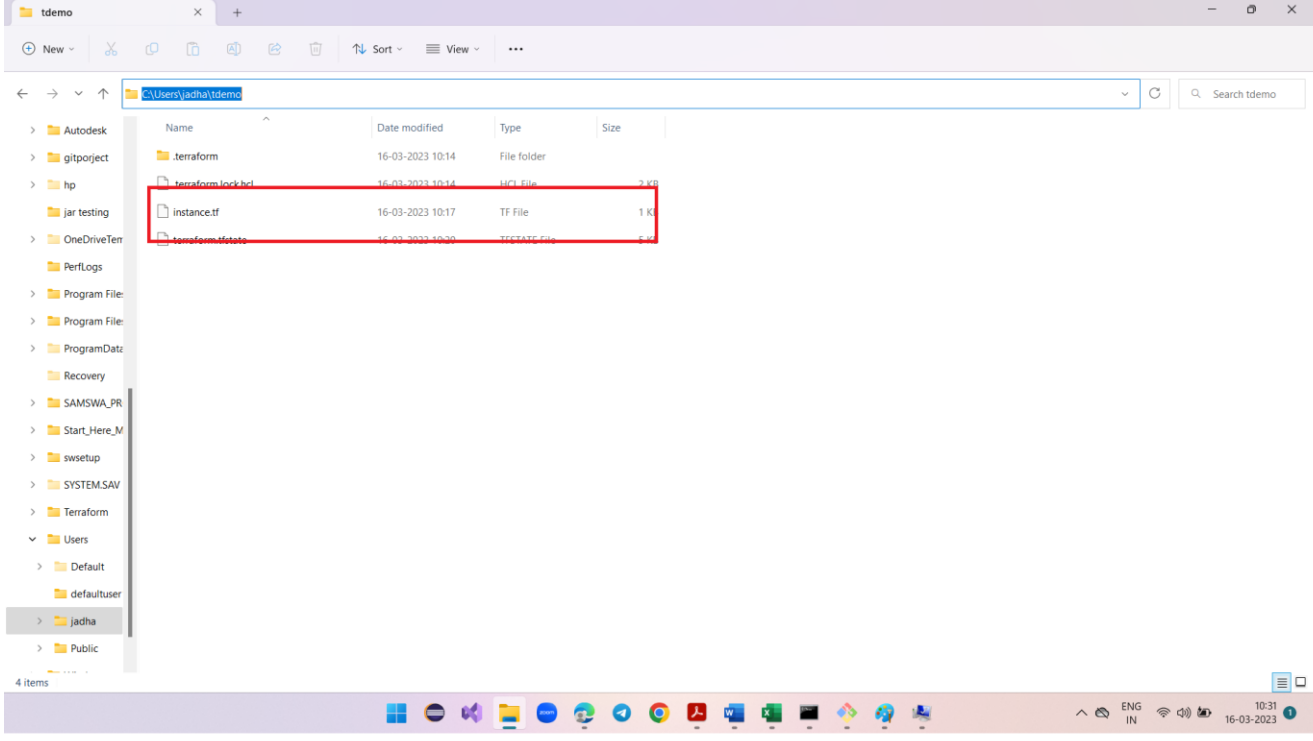
Manage Preferences
ACCEPT
ENG
IN
10:23
16-03-2023


terraform_1.4.1_windows_amd
New
Sort
View
C:\Terraform\terraform_1.4.1_windows_amd64
Search terraform_1...
Name
Date modified
Type
Size
terraform
16-03-2023 09:28
Application
63,890 KB
AKOLA
apache mave
apache-ant-1
apache-tomc
Autocad lear
Autodesk
gitporject
hp
jar testing
OneDriveTen
PerfLogs
Program File
Program File
ProgramDat
Recovery
SAMSWA_PR
Start_Here_M
swsetup
SYSTEM.SAV
Terraform
1 item
ENG
IN
10:24
16-03-2023



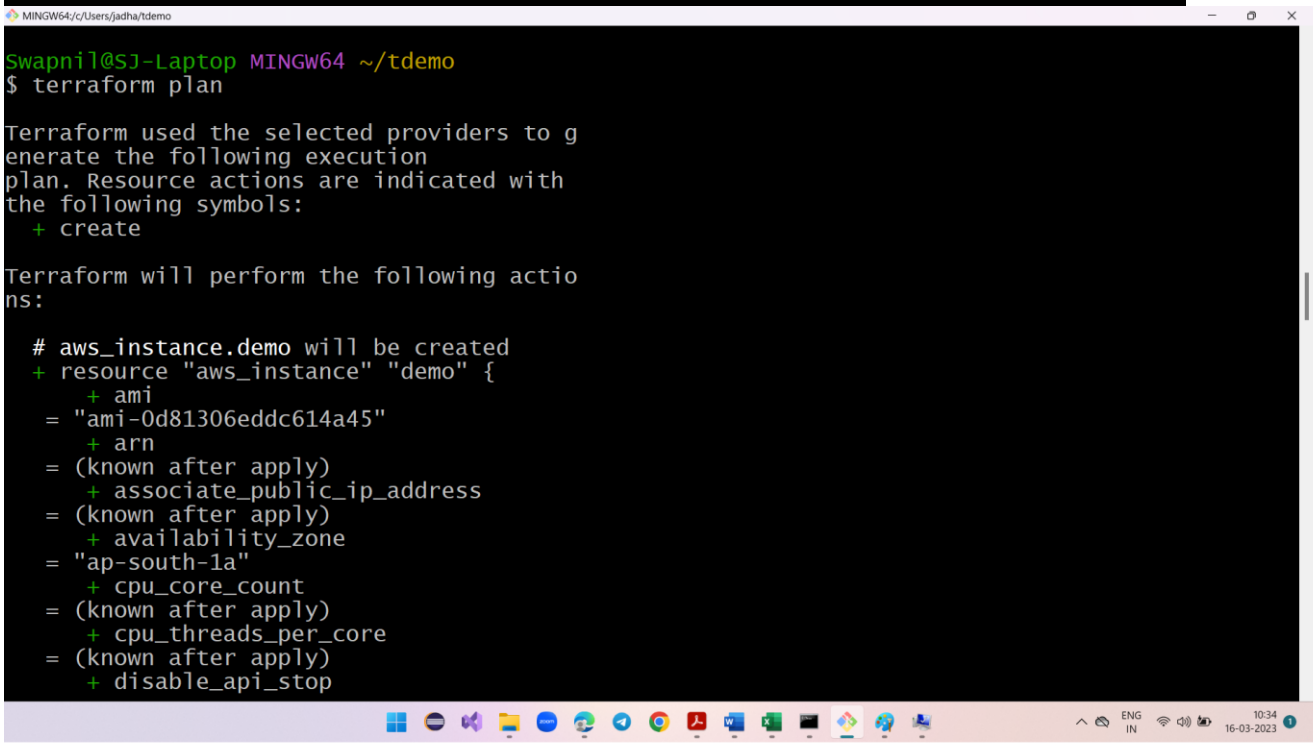

```
C:\Users\jadha>aws --version
aws-cli/2.11.3 Python/3.11.2 Windows/10 exe/AMD64 prompt/off
```

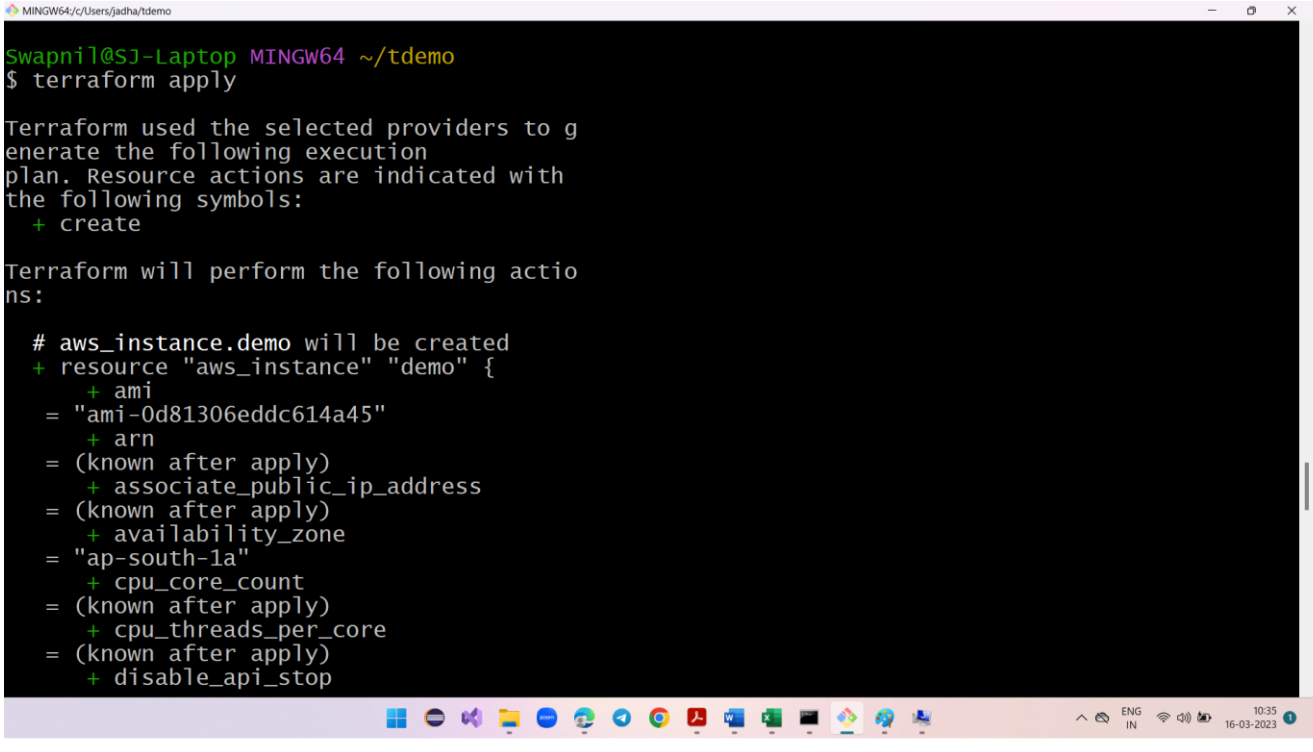


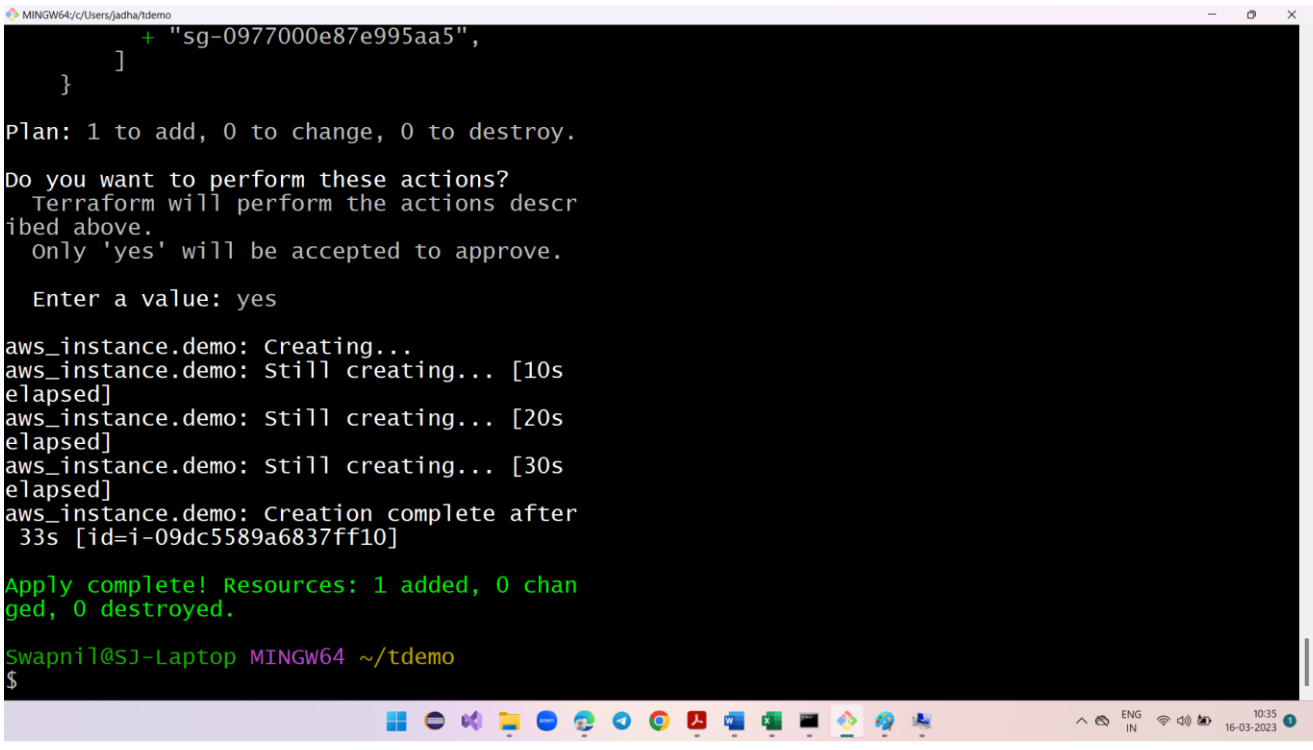
```
Swapnil@SJ-Laptop MINGW64 ~/tdemo
$ cat instance.tf
provider "aws" {
  region = "ap-south-1"
  #access_key=""
  #secret_key=""
}

resource "aws_instance" "demo" {
   ami = "ami-0d81306eddc614a45"
   instance_type= "t2.micro"
   availability_zone = "ap-south-1a"
   key_name=""
   vpc_security_group_ids=["sg-0977000e87e
995aa5"]
   tags = {
      Name = "Terraform_hands_on"
}
}
```

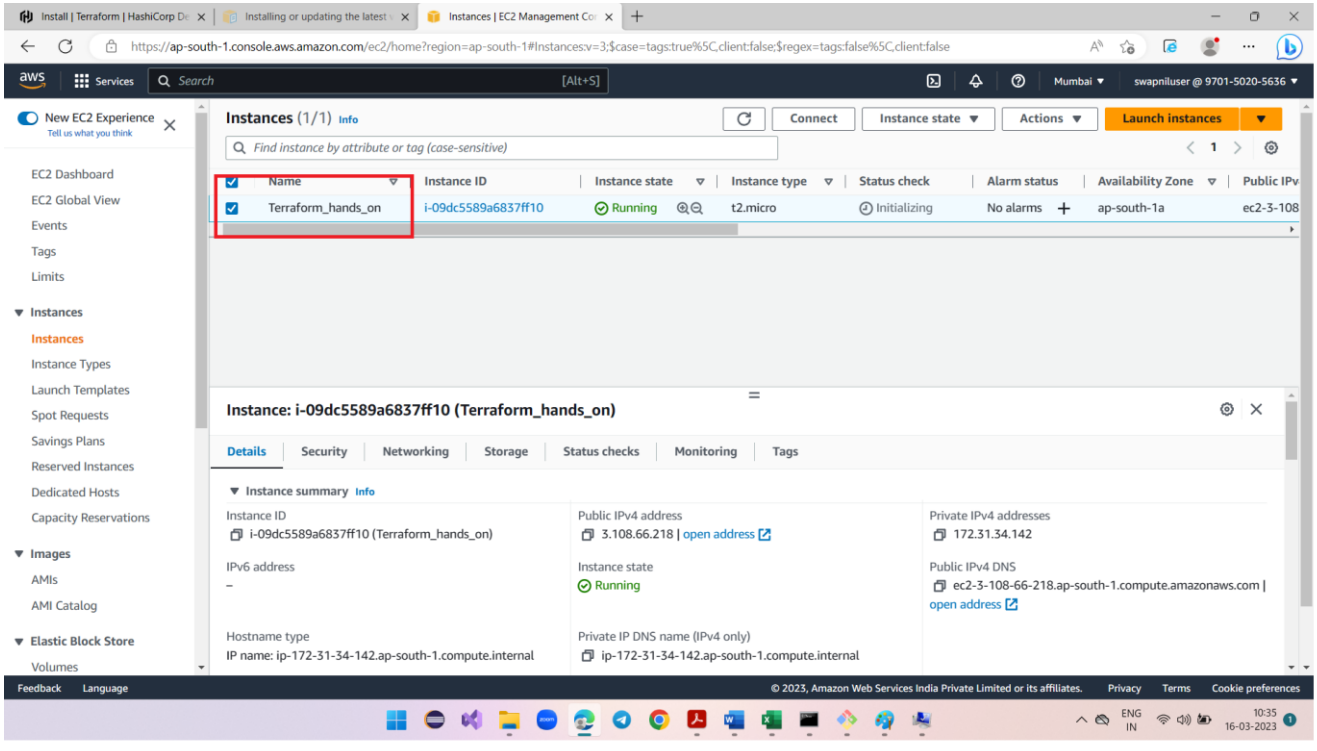
```
MINGW64:/c/Users/jadha/tdemo
Swapnil@SJ-Laptop MINGW64 ~/tdemo
$ terraform init

Initializing the backend...

Initializing provider plugins...
- Finding latest version of hashicorp/aws.
..
- Installing hashicorp/aws v4.58.0...
- Installed hashicorp/aws v4.58.0 (signed
by HashiCorp)

Terraform has created a lock file .terrafo
rm.lock.hcl to record the provider
selections it made above. Include this fil
e in your version control repository
so that Terraform can guarantee to make th
e same selections by default when
you run "terraform init" in the future.

Terraform has been successfully initialize
d!

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

```
Swapnil@SJ-Laptop MINGW64 ~/tdemo
$ terraform validate
Success! The configuration is valid.
```






MINGW64:/c/Users/jadha/tdemo
+ "sg-0977000e87e995aa5",
]
}
Plan: 1 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.demo: Creating...
aws_instance.demo: Still creating... [10s elapsed]
aws_instance.demo: Still creating... [20s elapsed]
aws_instance.demo: Still creating... [30s elapsed]
aws_instance.demo: Creation complete after 33s [id=i-09dc5589a6837ff10]
Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
Swapnil@SJ-Laptop MINGW64 ~/tdemo
$


Instances (1/1) Info
Connect
Instance state
Actions
Launch instances
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zone
Terraform_hands_on
i-09dc5589a6837ff10
Running
t2.micro
Initializing
No alarms
ap-south-1a
Instance: i-09dc5589a6837ff10 (Terraform_hands_on)
Details
Security
Networking
Storage
Status checks
Monitoring
Tags
Instance summary Info
Instance ID
i-09dc5589a6837ff10 (Terraform_hands_on)
Public IPv4 address
3.108.66.218 | open address
Private IPv4 addresses
172.31.34.142
IPv6 address
Instance state
Running
Public IPv4 DNS
ec2-3-108-66-218.ap-south-1.compute.amazonaws.com | open address
Hostname type
IP name: ip-172-31-34-142.ap-south-1.compute.internal
Private IP DNS name (IPv4 only)
ip-172-31-34-142.ap-south-1.compute.internal