Saturday, 16 March 2024

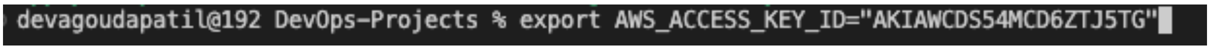
How to set credential environment for AWS in Terraform

We can set environment for AWS credential to read so that we don't need to provide access and secret key each time we write script for AWS resource in Terraform and also we don’t need to provide provider.tf file for each directory.

Whenever we write terraform script it will fetch credential from set environment.

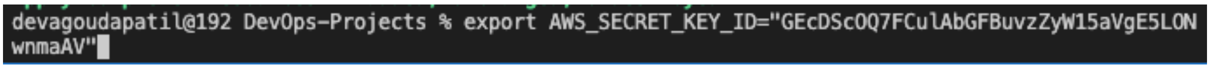
Form that we can export all our credential to environment. Use below command.

#export AWS_ACCESS_KEY_ID=“user_access_key”



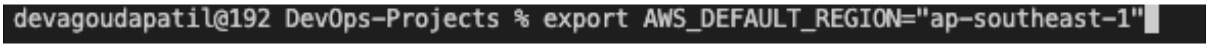
```
devagoudapatil@192 DevOps-Projects % export AWS_ACCESS_KEY_ID="AKIAWCDS54MCD6ZTJ5TG"
```

#export AWS_SECRET_KEY_ID=“user_secret_key”



```
devagoudapatil@192 DevOps-Projects % export AWS_SECRET_KEY_ID="GEcDScOQ7FCulAbGFBuvzZyW15aVgE5LON
wnmaAV"
```

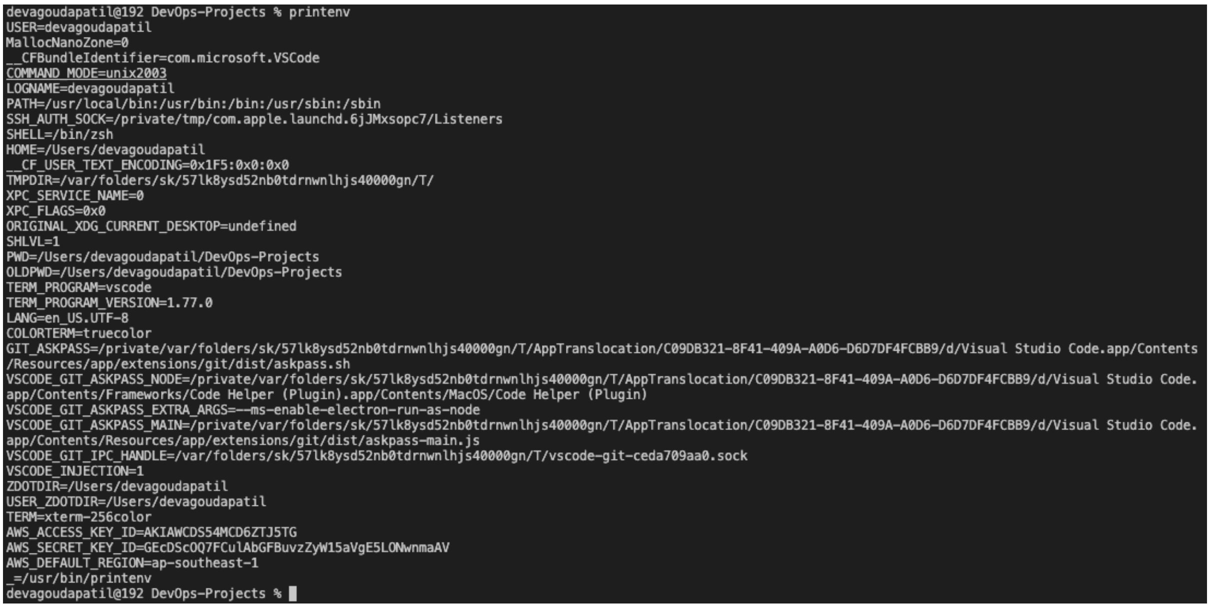
#export AWS_DEFAULT_REGION=“default_region_code”



```
devagoudapatil@192 DevOps-Projects % export AWS_DEFAULT_REGION="ap-southeast-1"
```

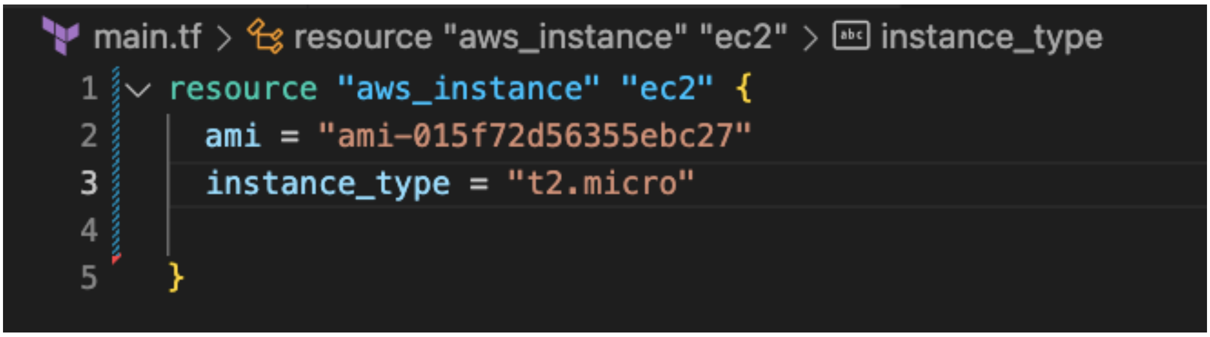
We can set environment by this command.

#printenv



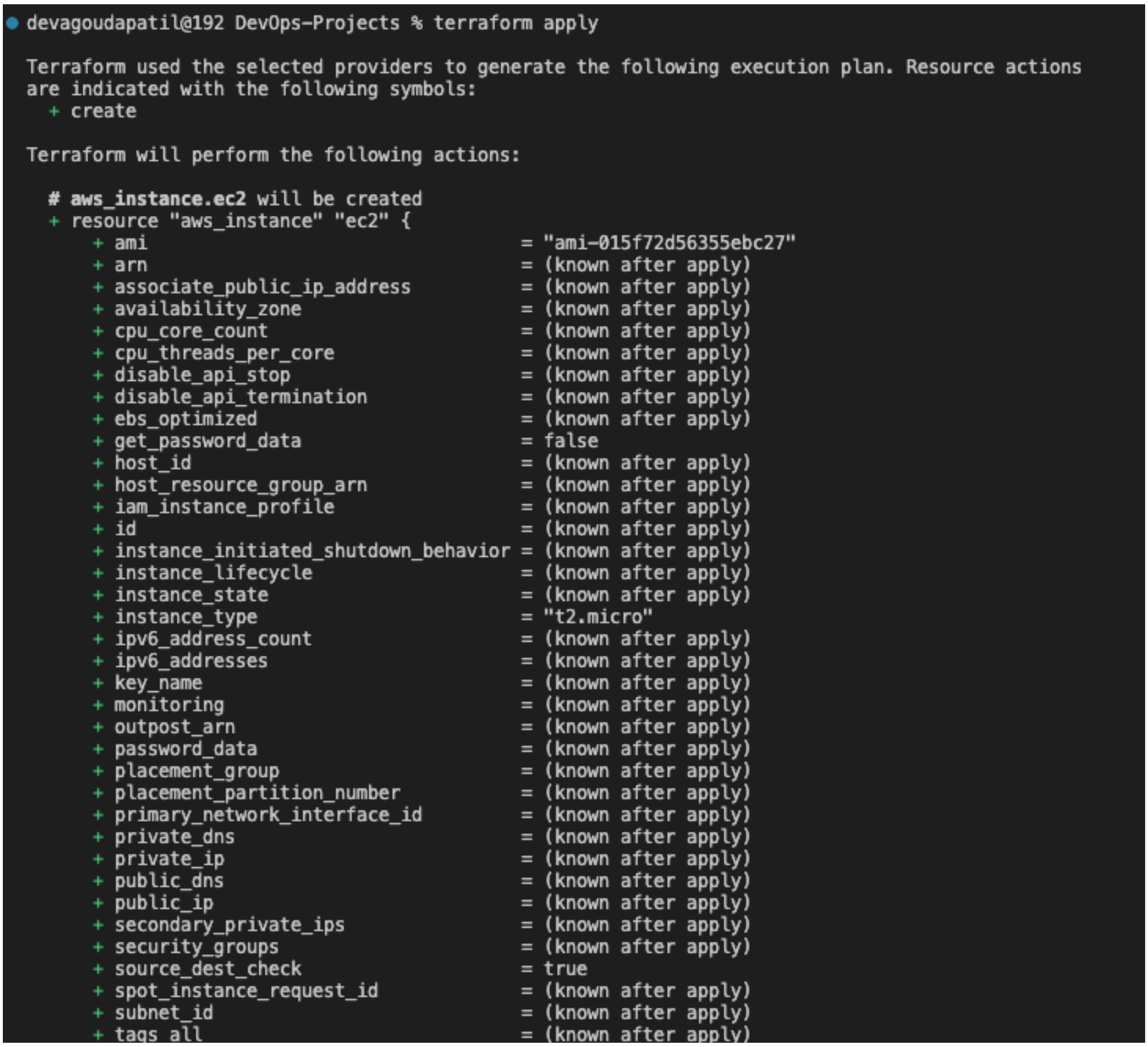
```
devagoudapatil@192 DevOps-Projects % printenv
USER=devagoudapatil
MallocNanoZone=0
__CFBundleIdentifier=com.microsoft.VSCode
COMMAND_MODE=unix2003
LOGNAME=devagoudapatil
PATH=/usr/local/bin:/usr/bin:/bin:/usr/sbin:/sbin
SSH_AUTH_SOCK=/private/tmp/com.apple.launchd.6jJMxsopc7/Listeners
SHELL=/bin/zsh
HOME=/Users/devagoudapatil
__CF_USER_TEXT_ENCODING=0x1F5:0x0:0x0
TMPDIR=/var/folders/sk/57lk8ysd52nb0tdrnwnlhjs40000gn/T/
XPC_SERVICE_NAME=0
XPC_FLAGS=0x0
ORIGINAL_XDG_CURRENT_DESKTOP=undefined
SHLVL=1
PWD=/Users/devagoudapatil/DevOps-Projects
OLDPWD=/Users/devagoudapatil/DevOps-Projects
TERM_PROGRAM=vscode
TERM_PROGRAM_VERSION=1.77.0
LANG=en_US.UTF-8
COLORTERM=truecolor
GIT_ASKPASS=/private/var/folders/sk/57lk8ysd52nb0tdrnwnlhjs40000gn/T/AppTranslocation/C09DB321-8F41-409A-A0D6-D6D7DF4FCBB9/d/Visual Studio Code.app/Contents
/Resources/app/extensions/git/dist/askpass.sh
VSCODE_GIT_ASKPASS_NODE=/private/var/folders/sk/57lk8ysd52nb0tdrnwnlhjs40000gn/T/AppTranslocation/C09DB321-8F41-409A-A0D6-D6D7DF4FCBB9/d/Visual Studio Code.
app/Contents/Frameworks/Code Helper (Plugin).app/Contents/MacOS/Code Helper (Plugin)
VSCODE_GIT_ASKPASS_EXTRA_ARGS=--ms-enable-electron-run-as-node
VSCODE_GIT_ASKPASS_MAIN=/private/var/folders/sk/57lk8ysd52nb0tdrnwnlhjs40000gn/T/AppTranslocation/C09DB321-8F41-409A-A0D6-D6D7DF4FCBB9/d/Visual Studio Code.
app/Contents/Resources/app/extensions/git/dist/askpass-main.js
VSCODE_GIT_IPC_HANDLE=/var/folders/sk/57lk8ysd52nb0tdrnwnlhjs40000gn/T/vscode-git-ceda709aa0.sock
VSCODE_INJECTION=1
ZDOTDIR=/Users/devagoudapatil
USER_ZDOTDIR=/Users/devagoudapatil
TERM=xterm-256color
AWS_ACCESS_KEY_ID=AKIAWCDS54MCD6ZTJ5TG
AWS_SECRET_KEY_ID=GEcDScOQ7FCulAbGFBuvzZyW15aVgE5LONwnmaAV
AWS_DEFAULT_REGION=ap-southeast-1
_=/usr/bin/printenv
devagoudapatil@192 DevOps-Projects % 
```

After setting environment we can configure AWS resources using Terraform without providing AWS provider and credentials.

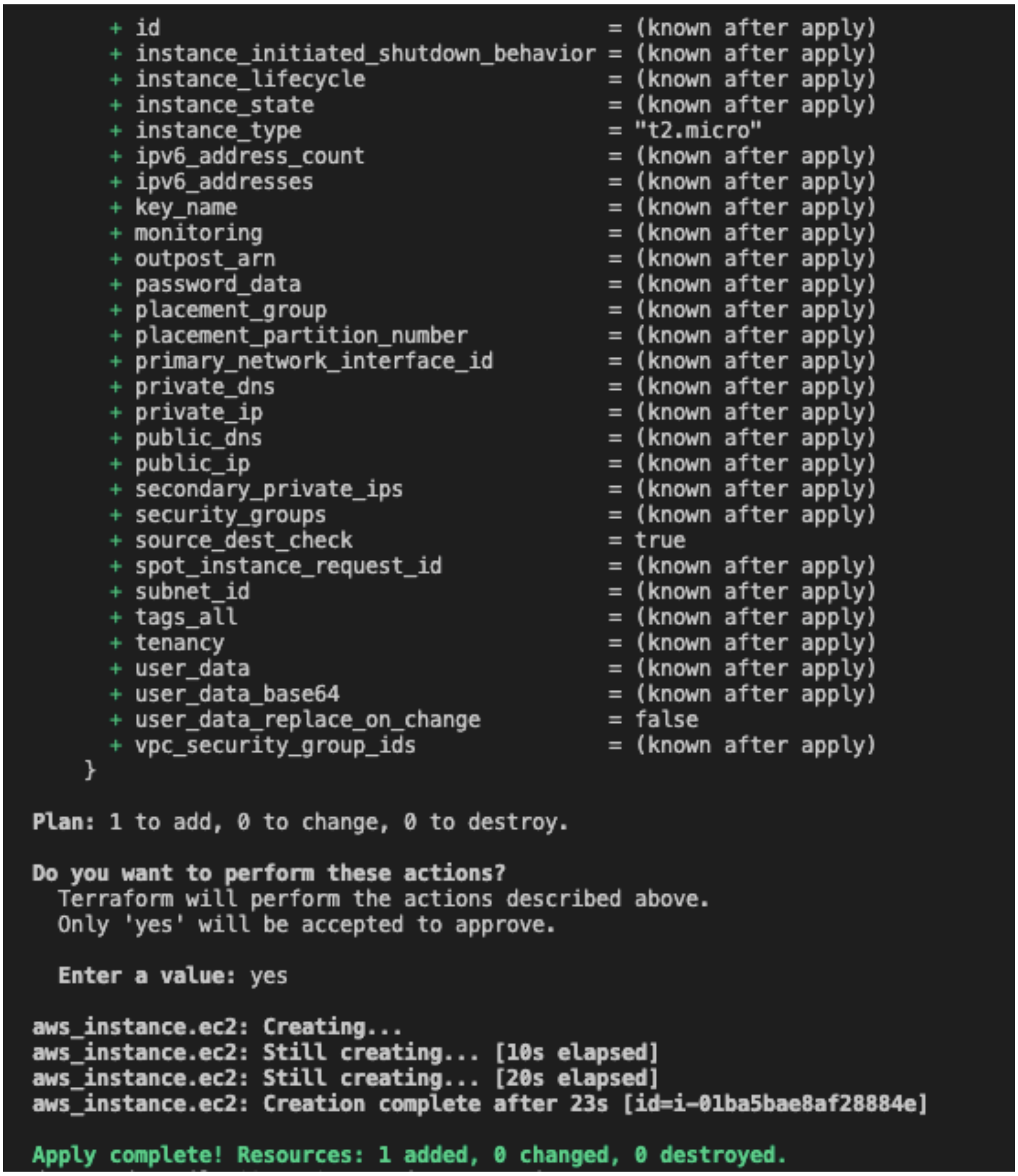


```
resource "aws_instance" "ec2" {
  ami = "ami-015f72d56355ebc27"
  instance_type = "t2.micro"

}
```

It will fetch all the credential from set environment and will not give any error.

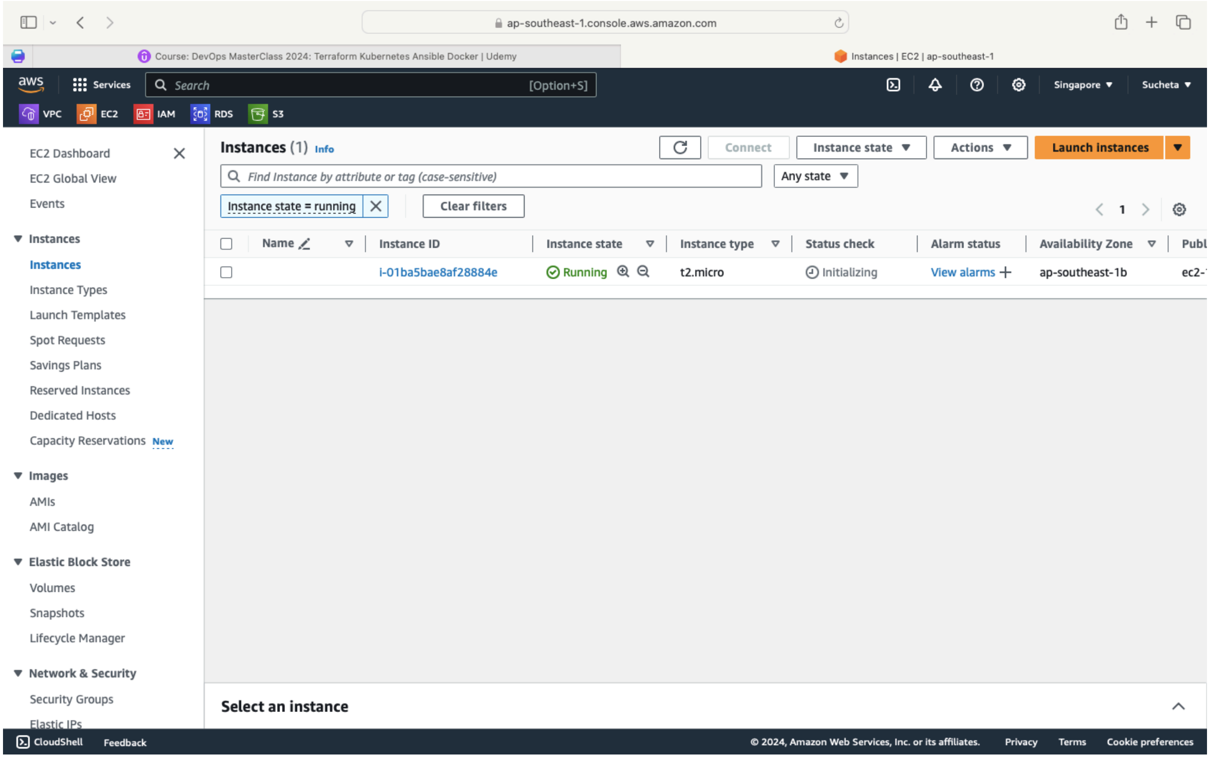


```
devagoudapatil@192 DevOps-Projects % terraform apply

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_instance.ec2 will be created
  + resource "aws_instance" "ec2" {
      + ami                                  = "ami-015f72d56355ebc27"
      + arn                                  = (known after apply)
      + associate_public_ip_address          = (known after apply)
      + availability_zone                    = (known after apply)
      + cpu_core_count                       = (known after apply)
      + cpu_threads_per_core                 = (known after apply)
      + disable_api_stop                     = (known after apply)
      + disable_api_termination              = (known after apply)
      + ebs_optimized                        = (known after apply)
      + get_password_data                    = false
      + host_id                              = (known after apply)
      + host_resource_group_arn              = (known after apply)
      + iam_instance_profile                 = (known after apply)
      + id                                   = (known after apply)
      + instance_initiated_shutdown_behavior = (known after apply)
      + instance_lifecycle                   = (known after apply)
      + instance_state                       = (known after apply)
      + instance_type                        = "t2.micro"
      + ipv6_address_count                   = (known after apply)
      + ipv6_addresses                       = (known after apply)
      + key_name                             = (known after apply)
      + monitoring                           = (known after apply)
      + outpost_arn                          = (known after apply)
      + password_data                        = (known after apply)
      + placement_group                      = (known after apply)
      + placement_partition_number           = (known after apply)
      + primary_network_interface_id         = (known after apply)
      + private_dns                          = (known after apply)
      + private_ip                           = (known after apply)
      + public_dns                           = (known after apply)
      + public_ip                            = (known after apply)
      + secondary_private_ips                = (known after apply)
      + security_groups                      = (known after apply)
      + source_dest_check                    = true
      + spot_instance_request_id             = (known after apply)
      + subnet_id                            = (known after apply)
      + tags_all                             = (known after apply)
```



```
      + id                                   = (known after apply)
      + instance_initiated_shutdown_behavior = (known after apply)
      + instance_lifecycle                   = (known after apply)
      + instance_state                       = (known after apply)
      + instance_type                        = "t2.micro"
      + ipv6_address_count                   = (known after apply)
      + ipv6_addresses                       = (known after apply)
      + key_name                             = (known after apply)
      + monitoring                           = (known after apply)
      + outpost_arn                          = (known after apply)
      + password_data                        = (known after apply)
      + placement_group                      = (known after apply)
      + placement_partition_number           = (known after apply)
      + primary_network_interface_id         = (known after apply)
      + private_dns                          = (known after apply)
      + private_ip                           = (known after apply)
      + public_dns                           = (known after apply)
      + public_ip                            = (known after apply)
      + secondary_private_ips                = (known after apply)
      + security_groups                      = (known after apply)
      + source_dest_check                    = true
      + spot_instance_request_id             = (known after apply)
      + subnet_id                            = (known after apply)
      + tags_all                             = (known after apply)
      + tenancy                              = (known after apply)
      + user_data                            = (known after apply)
      + user_data_base64                     = (known after apply)
      + user_data_replace_on_change          = false
      + vpc_security_group_ids               = (known after apply)
    }

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.ec2: Creating...
aws_instance.ec2: Still creating... [10s elapsed]
aws_instance.ec2: Still creating... [20s elapsed]
aws_instance.ec2: Creation complete after 23s [id=i-01ba5bae8af28884e]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
```

We can check our resources.



□	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Publ
□		i-01ba5bae8af28884e	Running	t2.micro	Initializing	View alarms +	ap-southeast-1b	ec2-