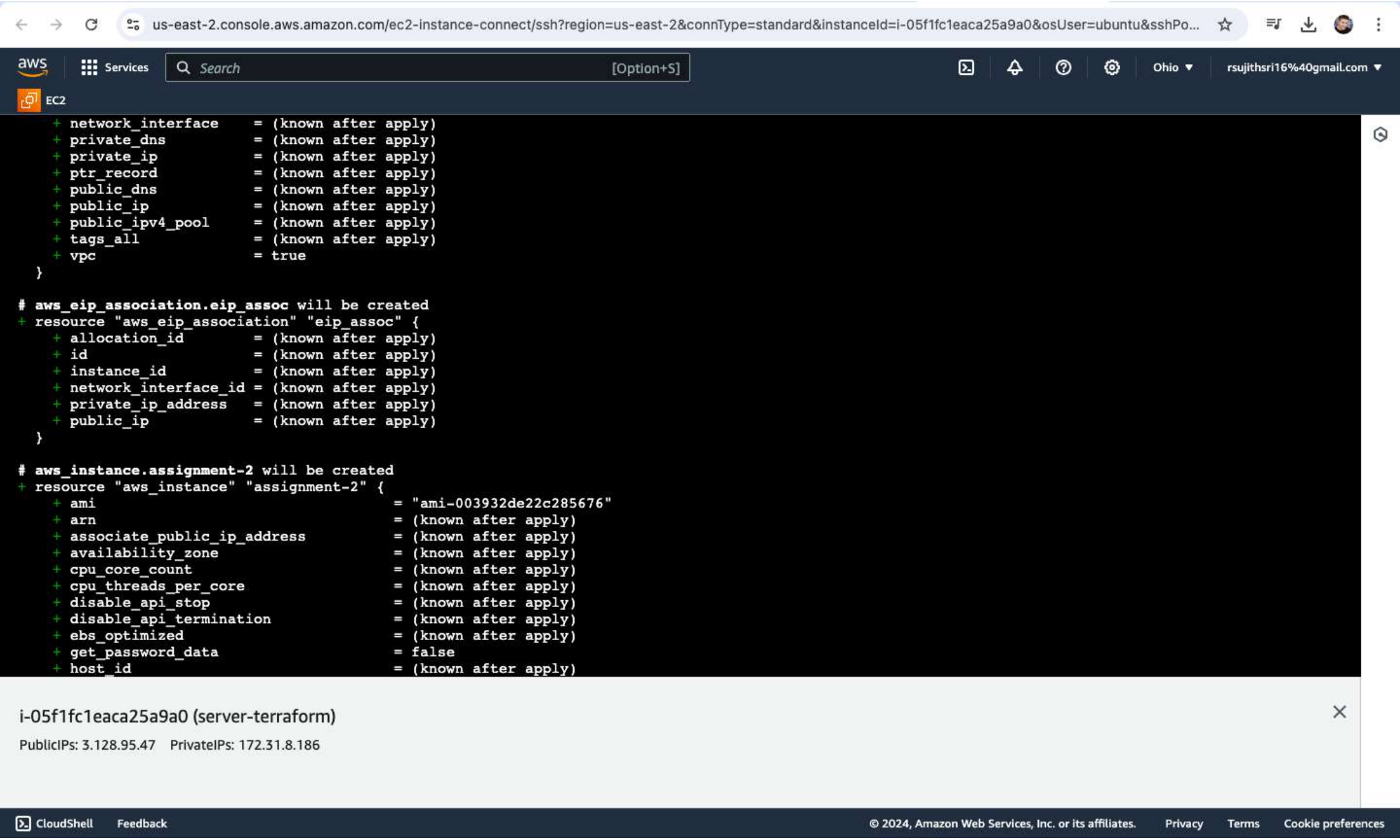
Module 8: Terraform
Assignment - 2

Tasks To Be Performed:

1. Destroy the previous deployment
2. Create a new EC2 instance with an Elastic IP

```
Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
ubuntu@ip-172-31-8-186:~/assignment$ sudo nano main.tf
ubuntu@ip-172-31-8-186:~/assignment$ terraform init
Initializing the backend...
Initializing provider plugins...
- Reusing previous version of hashicorp/aws from the dependency lock file
- Using previously-installed hashicorp/aws v5.60.0

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.
ubuntu@ip-172-31-8-186:~/assignment$ terraform plan
aws_instance.assignment-1: Refreshing state... [id=i-029b10c9c215dd75e]

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_eip.eip will be created
  + resource "aws_eip" "eip" {
      + allocation_id        = (known after apply)
      + arn                  = (known after apply)
      + association_id       = (known after apply)
      + carrier_ip           = (known after apply)
      + customer_owned_ip    = (known after apply)
      + domain               = (known after apply)
```


us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-2&connType=standard&instanceId=i-05f1fc1eaca25a9a0&osUser=ubuntu&sshPo...
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EC2
+ network_interface = (known after apply)
+ private_dns = (known after apply)
+ private_ip = (known after apply)
+ ptr_record = (known after apply)
+ public_dns = (known after apply)
+ public_ip = (known after apply)
+ public_ipv4_pool = (known after apply)
+ tags_all = (known after apply)
+ vpc = true
}
# aws_eip_association.eip_assoc will be created
+ resource "aws_eip_association" "eip_assoc" {
+ allocation_id = (known after apply)
+ id = (known after apply)
+ instance_id = (known after apply)
+ network_interface_id = (known after apply)
+ private_ip_address = (known after apply)
+ public_ip = (known after apply)
}
# aws_instance.assignment-2 will be created
+ resource "aws_instance" "assignment-2" {
+ ami = "ami-003932de22c285676"
+ 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)
i-05f1fc1eaca25a9a0 (server-terraform)
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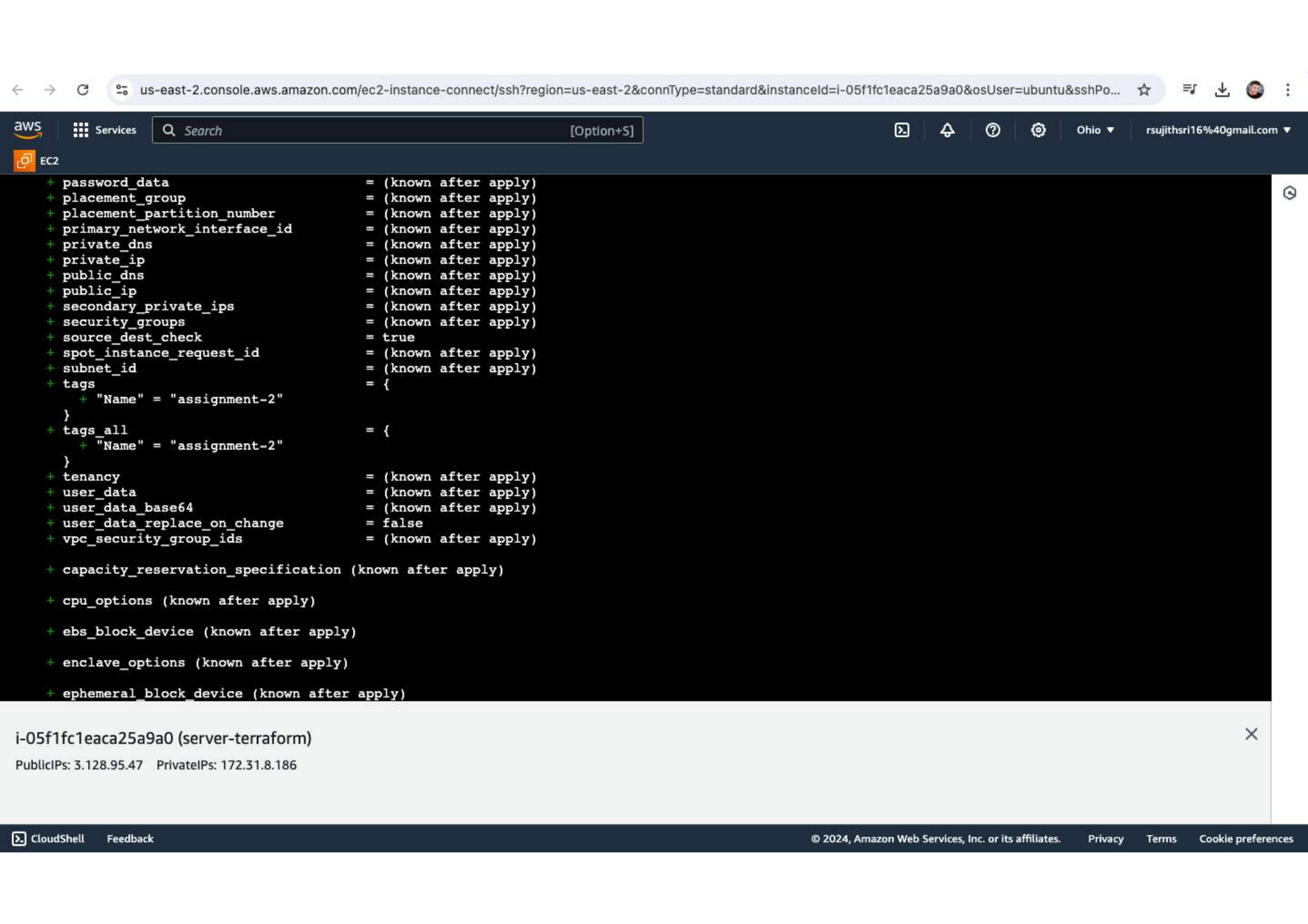
us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-2&connType=standard&instanceId=i-05f1fc1eaca25a9a0&osUser=ubuntu&sshPo...
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EC2
+ password_data = (known after apply)
+ placement_group = (known after apply)
+ placement_partition_number = (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 = {
+ "Name" = "assignment-2"
}
+ tags_all = {
+ "Name" = "assignment-2"
}
+ 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)
+ 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)
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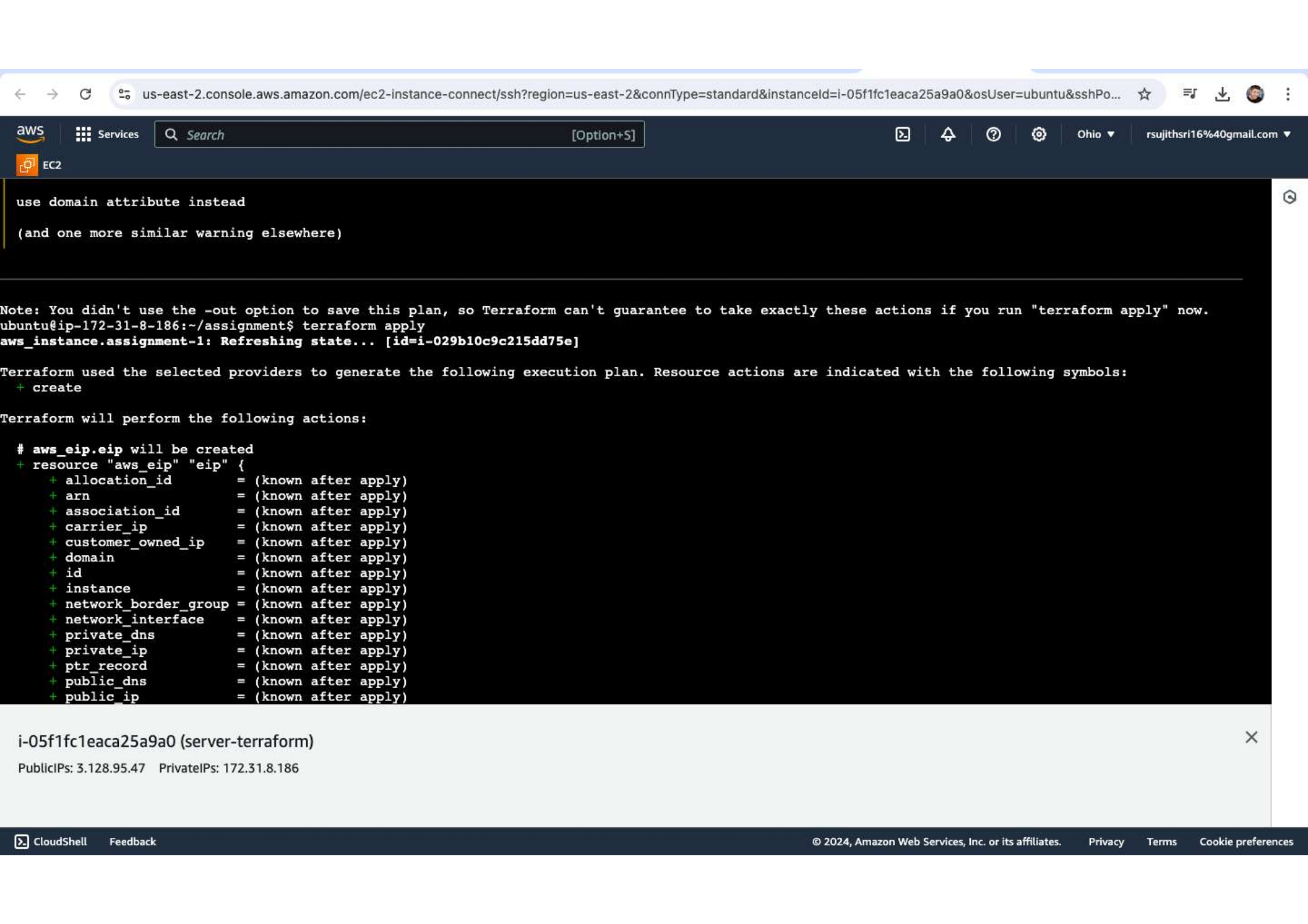
us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-2&connType=standard&instanceId=i-05f1fc1eaca25a9a0&osUser=ubuntu&sshPo...
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EC2
use domain attribute instead
(and one more similar warning elsewhere)
Note: You didn't use the -out option to save this plan, so Terraform can't guarantee to take exactly these actions if you run "terraform apply" now.
ubuntu@ip-172-31-8-186:~/assignment$ terraform apply
aws_instance.assignment-1: Refreshing state... [id=i-029b10c9c215dd75e]
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_eip.eip will be created
+ resource "aws_eip" "eip" {
+ allocation_id = (known after apply)
+ arn = (known after apply)
+ association_id = (known after apply)
+ carrier_ip = (known after apply)
+ customer_owned_ip = (known after apply)
+ domain = (known after apply)
+ id = (known after apply)
+ instance = (known after apply)
+ network_border_group = (known after apply)
+ network_interface = (known after apply)
+ private_dns = (known after apply)
+ private_ip = (known after apply)
+ ptr_record = (known after apply)
+ public_dns = (known after apply)
+ public_ip = (known after apply)
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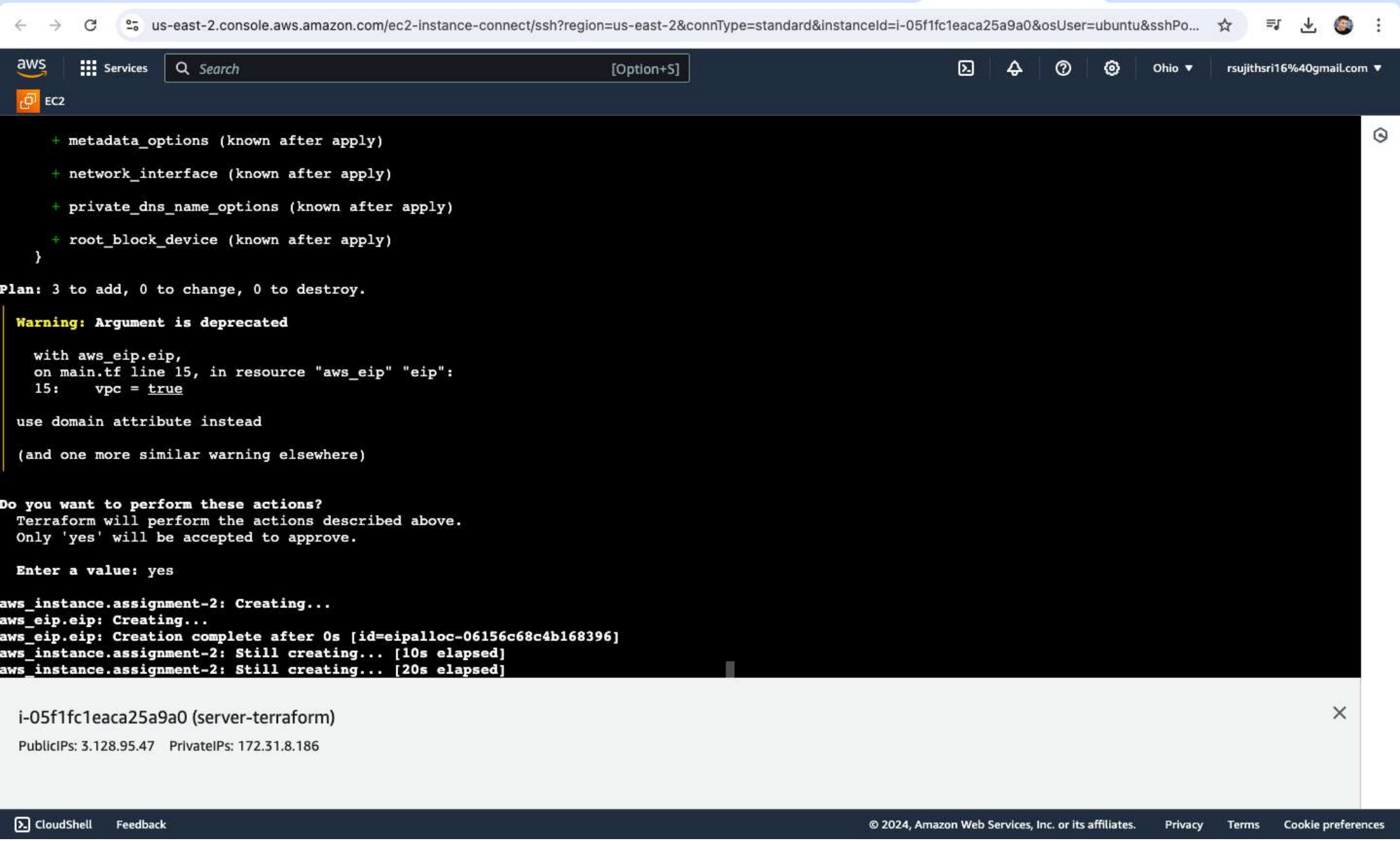
us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-2&connType=standard&instanceId=i-05f1fc1eaca25a9a0&osUser=ubuntu&sshPo...
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EC2
+ metadata_options (known after apply)
+ network_interface (known after apply)
+ private_dns_name_options (known after apply)
+ root_block_device (known after apply)
}
Plan: 3 to add, 0 to change, 0 to destroy.
Warning: Argument is deprecated
with aws_eip.eip,
on main.tf line 15, in resource "aws_eip" "eip":
15: vpc = true
use domain attribute instead
(and one more similar warning elsewhere)
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.assignment-2: Creating...
aws_eip.eip: Creating...
aws_eip.eip: Creation complete after 0s [id=eipalloc-06156c68c4b168396]
aws_instance.assignment-2: Still creating... [10s elapsed]
aws_instance.assignment-2: Still creating... [20s elapsed]
i-05f1fc1eaca25a9a0 (server-terraform)
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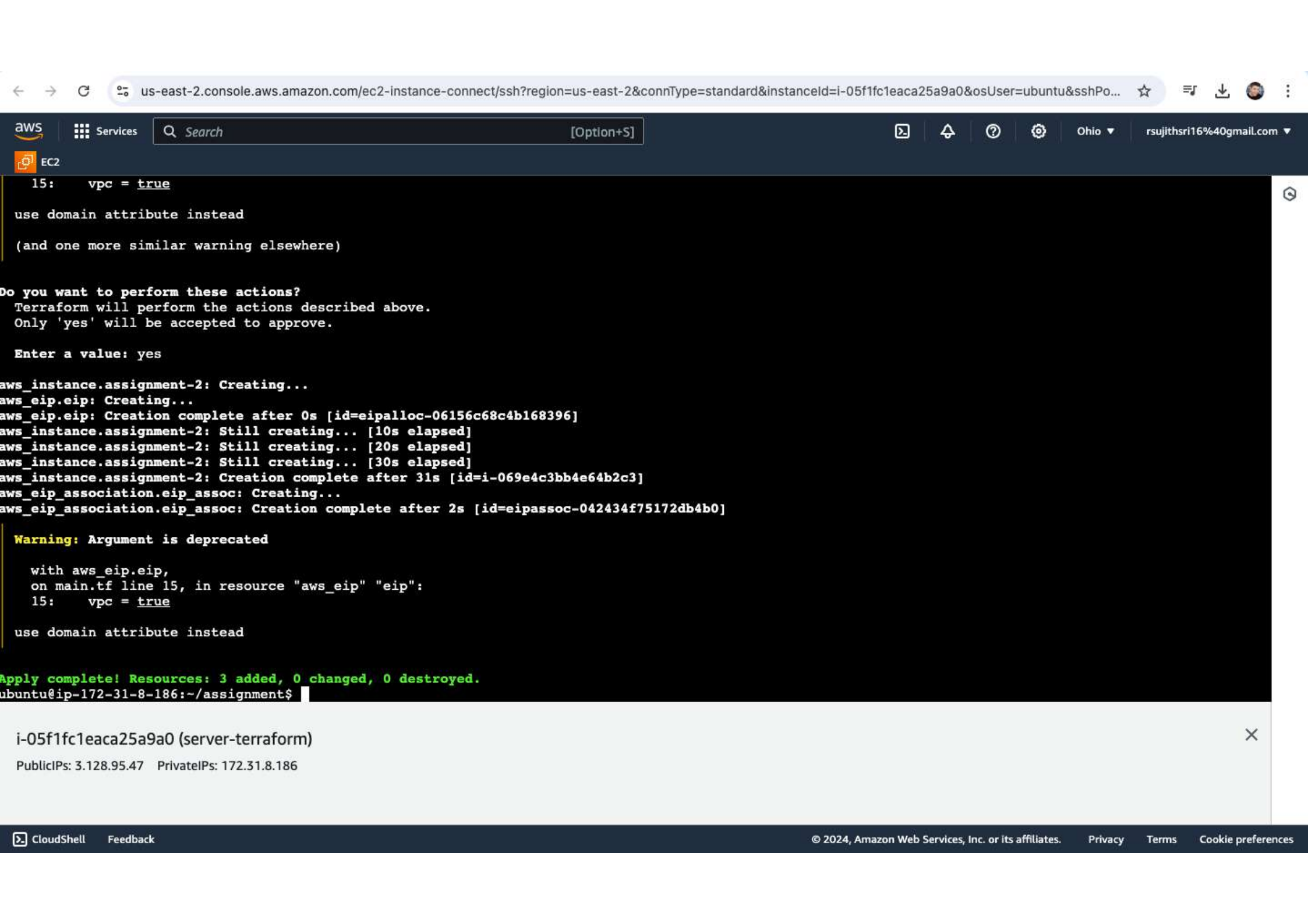
us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-2&connType=standard&instanceId=i-05f1fc1eaca25a9a0&osUser=ubuntu&sshPo...
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EC2
15: vpc = true
use domain attribute instead
(and one more similar warning elsewhere)
Do you want to perform these actions?
Terraform will perform the actions described above.
Only 'yes' will be accepted to approve.
Enter a value: yes
aws_instance.assignment-2: Creating...
aws_eip.eip: Creating...
aws_eip.eip: Creation complete after 0s [id=eipalloc-06156c68c4b168396]
aws_instance.assignment-2: Still creating... [10s elapsed]
aws_instance.assignment-2: Still creating... [20s elapsed]
aws_instance.assignment-2: Still creating... [30s elapsed]
aws_instance.assignment-2: Creation complete after 31s [id=i-069e4c3bb4e64b2c3]
aws_eip_association.eip_assoc: Creating...
aws_eip_association.eip_assoc: Creation complete after 2s [id=eipassoc-042434f75172db4b0]
Warning: Argument is deprecated
with aws_eip.eip,
on main.tf line 15, in resource "aws_eip" "eip":
15: vpc = true
use domain attribute instead
Apply complete! Resources: 3 added, 0 changed, 0 destroyed.
ubuntu@ip-172-31-8-186:~/assignment$
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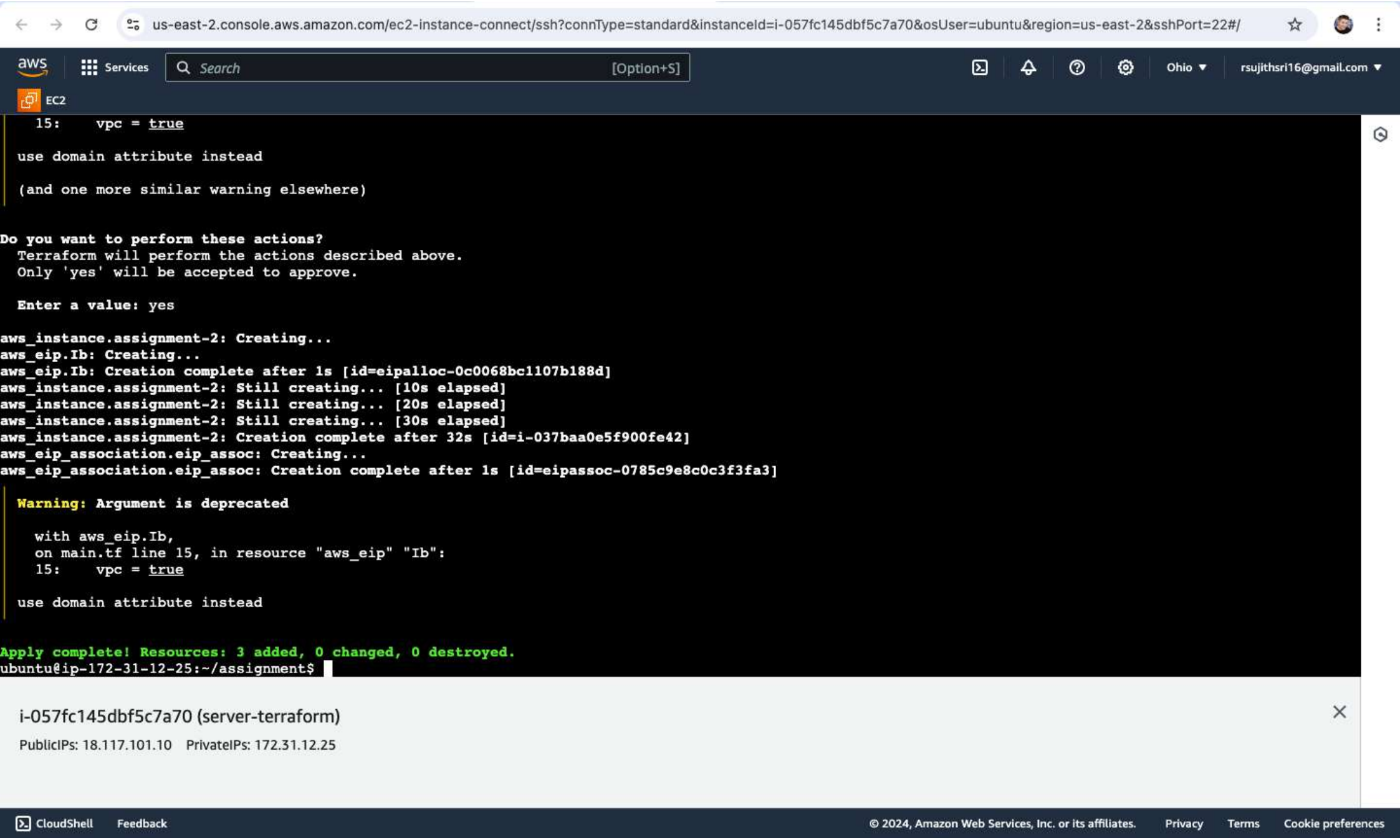
us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-057fc145dbf5c7a70&osUser=ubuntu&region=us-east-2&sshPort=22#/
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EC2
15: vpc = true
use domain attribute instead
(and one more similar warning elsewhere)
Do you want to perform these actions?
Terraform will perform the actions described above.
Only 'yes' will be accepted to approve.
Enter a value: yes
aws_instance.assignment-2: Creating...
aws_eip.Ib: Creating...
aws_eip.Ib: Creation complete after 1s [id=eipalloc-0c0068bc1107b188d]
aws_instance.assignment-2: Still creating... [10s elapsed]
aws_instance.assignment-2: Still creating... [20s elapsed]
aws_instance.assignment-2: Still creating... [30s elapsed]
aws_instance.assignment-2: Creation complete after 32s [id=i-037baa0e5f900fe42]
aws_eip_association.eip_assoc: Creating...
aws_eip_association.eip_assoc: Creation complete after 1s [id=eipassoc-0785c9e8c0c3f3fa3]
Warning: Argument is deprecated
with aws_eip.Ib,
on main.tf line 15, in resource "aws_eip" "Ib":
15: vpc = true
use domain attribute instead
Apply complete! Resources: 3 added, 0 changed, 0 destroyed.
ubuntu@ip-172-31-12-25:~/assignment$
i-057fc145dbf5c7a70 (server-terraform)
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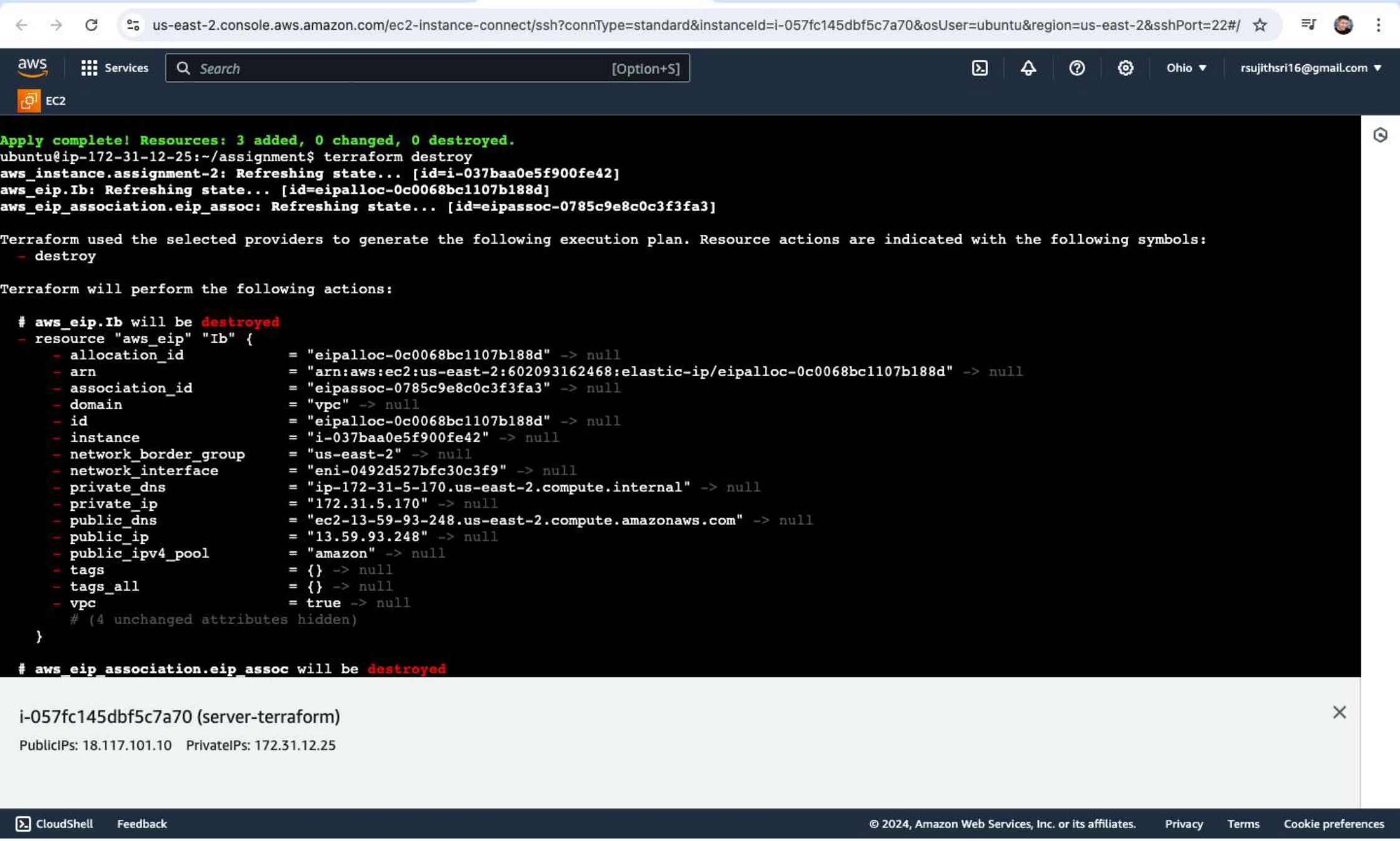
us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-057fc145dbf5c7a70&osUser=ubuntu&region=us-east-2&sshPort=22#/
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EC2
Apply complete! Resources: 3 added, 0 changed, 0 destroyed.
ubuntu@ip-172-31-12-25:~/assignment$ terraform destroy
aws_instance.assignment-2: Refreshing state... [id=i-037baa0e5f900fe42]
aws_eip.Ib: Refreshing state... [id=eipalloc-0c0068bc1107b188d]
aws_eip_association.eip_assoc: Refreshing state... [id=eipassoc-0785c9e8c0c3f3fa3]
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_eip.Ib will be destroyed
- resource "aws_eip" "Ib" {
- allocation_id = "eipalloc-0c0068bc1107b188d" -> null
- arn = "arn:aws:ec2:us-east-2:602093162468:elastic-ip/eipalloc-0c0068bc1107b188d" -> null
- association_id = "eipassoc-0785c9e8c0c3f3fa3" -> null
- domain = "vpc" -> null
- id = "eipalloc-0c0068bc1107b188d" -> null
- instance = "i-037baa0e5f900fe42" -> null
- network_border_group = "us-east-2" -> null
- network_interface = "eni-0492d527bfc30c3f9" -> null
- private_dns = "ip-172-31-5-170.us-east-2.compute.internal" -> null
- private_ip = "172.31.5.170" -> null
- public_dns = "ec2-13-59-93-248.us-east-2.compute.amazonaws.com" -> null
- public_ip = "13.59.93.248" -> null
- public_ipv4_pool = "amazon" -> null
- tags = {} -> null
- tags_all = {} -> null
- vpc = true -> null
# (4 unchanged attributes hidden)
}
# aws_eip_association.eip_assoc will be destroyed
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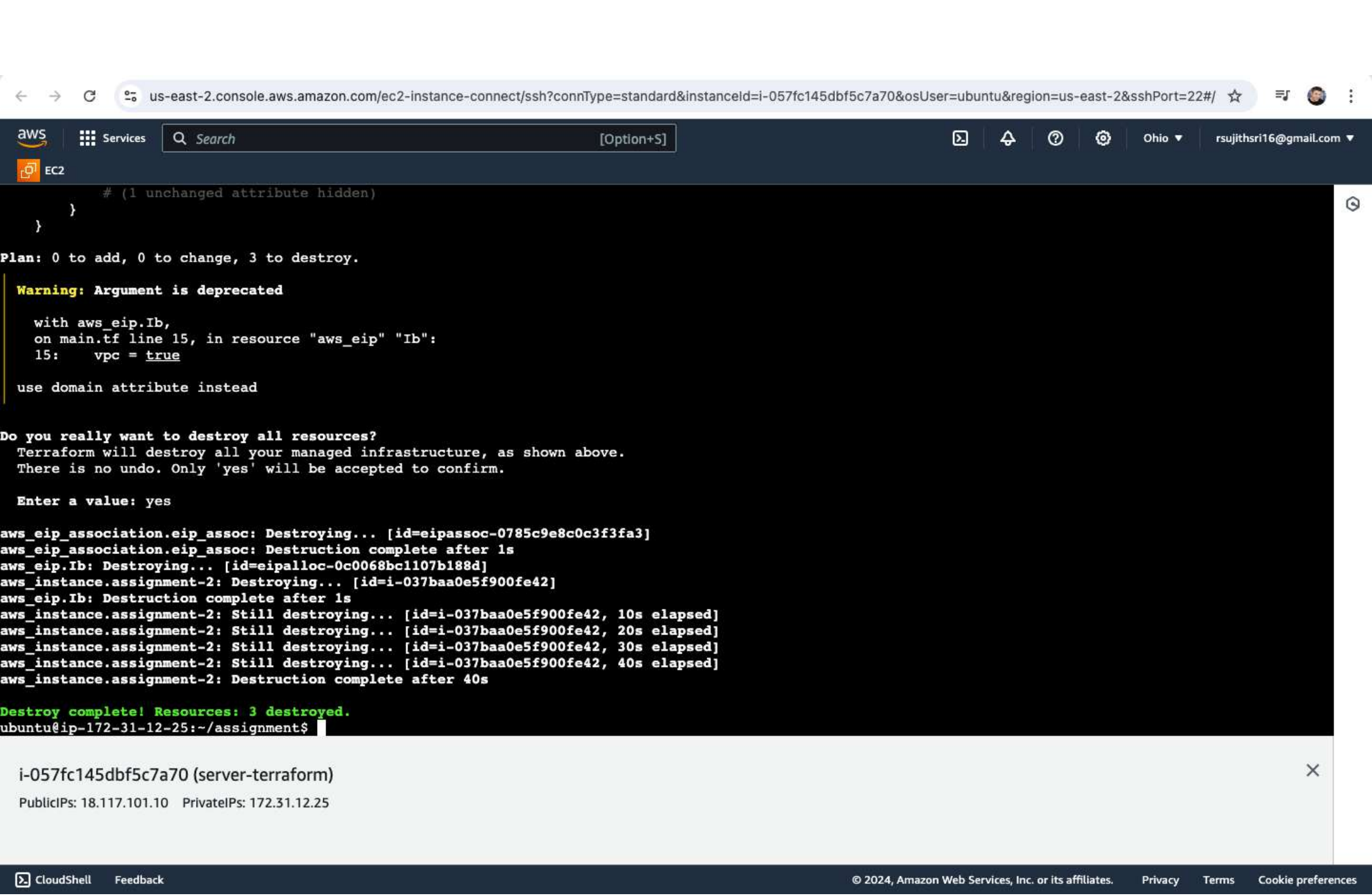
us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-057fc145dbf5c7a70&osUser=ubuntu&region=us-east-2&sshPort=22#/
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EC2
# (1 unchanged attribute hidden)
}
}
Plan: 0 to add, 0 to change, 3 to destroy.
Warning: Argument is deprecated
with aws_eip.Ib,
on main.tf line 15, in resource "aws_eip" "Ib":
15: vpc = true
use domain attribute instead
Do you really want to destroy all resources?
Terraform will destroy all your managed infrastructure, as shown above.
There is no undo. Only 'yes' will be accepted to confirm.
Enter a value: yes
aws_eip_association.eip_assoc: Destroying... [id=eipassoc-0785c9e8c0c3f3fa3]
aws_eip_association.eip_assoc: Destruction complete after 1s
aws_eip.Ib: Destroying... [id=eipalloc-0c0068bc1107b188d]
aws_instance.assignment-2: Destroying... [id=i-037baa0e5f900fe42]
aws_eip.Ib: Destruction complete after 1s
aws_instance.assignment-2: Still destroying... [id=i-037baa0e5f900fe42, 10s elapsed]
aws_instance.assignment-2: Still destroying... [id=i-037baa0e5f900fe42, 20s elapsed]
aws_instance.assignment-2: Still destroying... [id=i-037baa0e5f900fe42, 30s elapsed]
aws_instance.assignment-2: Still destroying... [id=i-037baa0e5f900fe42, 40s elapsed]
aws_instance.assignment-2: Destruction complete after 40s
Destroy complete! Resources: 3 destroyed.
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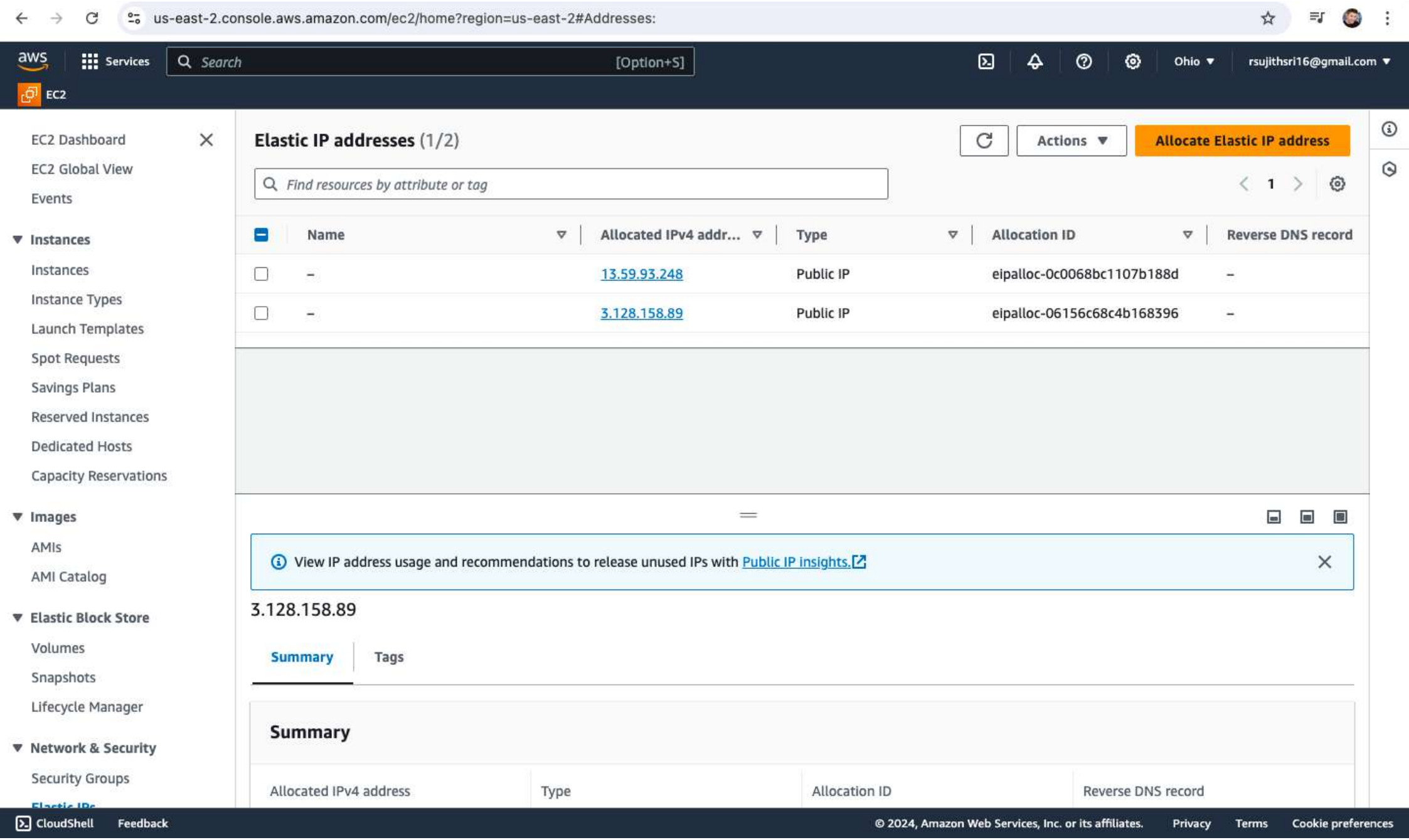
us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#Addresses:
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EC2
EC2 Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Security Groups
Elastic IPs
Elastic IP addresses (1/2)
Actions
Allocate Elastic IP address
Find resources by attribute or tag
1
Name
Allocated IPv4 addr...
Type
Allocation ID
Reverse DNS record
– 13.59.93.248 Public IP eipalloc-0c0068bc1107b188d –
– 3.128.158.89 Public IP eipalloc-06156c68c4b168396 –
View IP address usage and recommendations to release unused IPs with Public IP insights.
3.128.158.89
Summary
Tags
Summary
Allocated IPv4 address
Type
Allocation ID
Reverse DNS record
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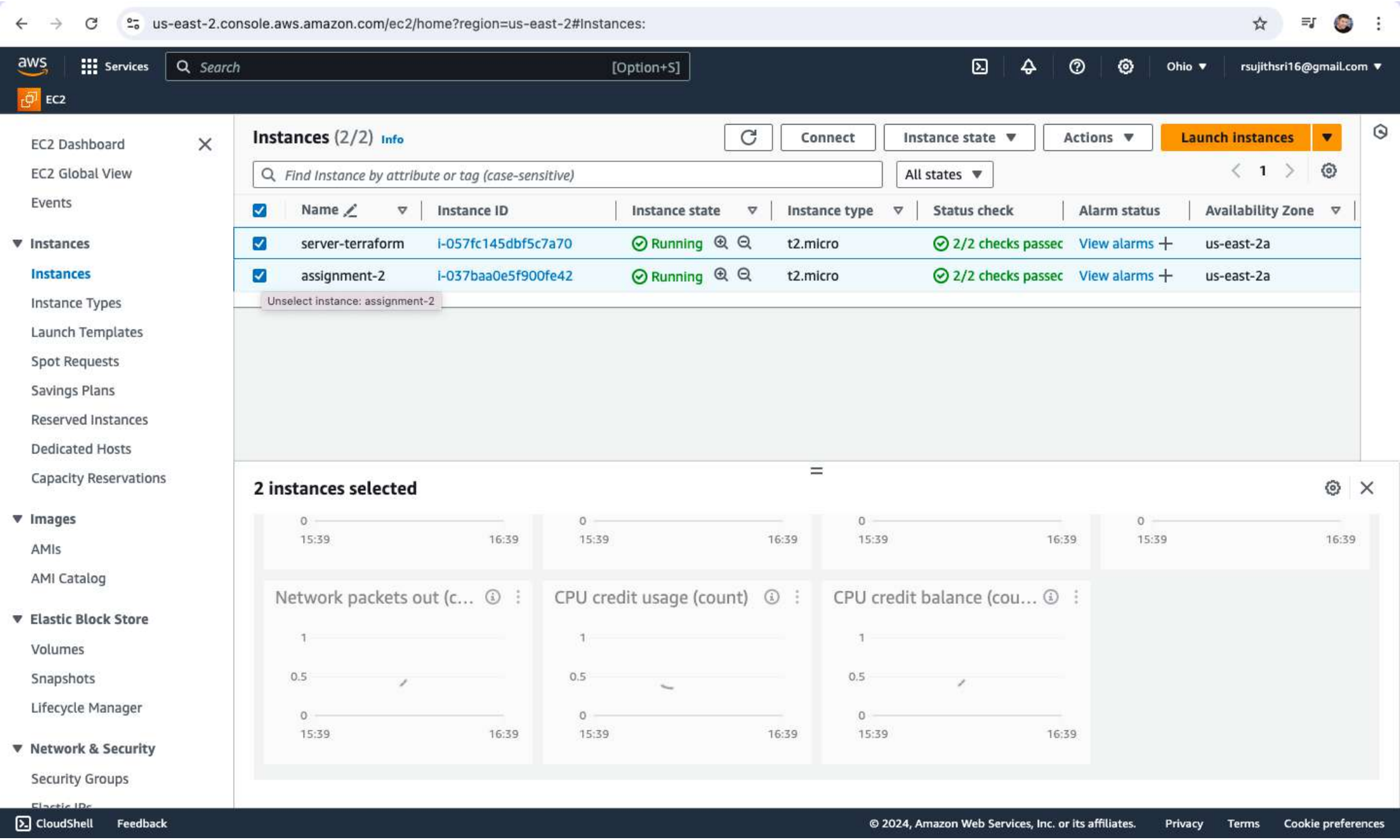
us-east-2.console.aws.amazon.com/ec2/home?region=us-east-2#Instances:
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EC2
EC2 Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Security Groups
Instances (2/2) Info
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states
1
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zone
server-terraform
i-057fc145dbf5c7a70
Running
t2.micro
2/2 checks passec
View alarms
us-east-2a
assignment-2
i-037baa0e5f900fe42
Running
t2.micro
2/2 checks passec
View alarms
us-east-2a
Unselect instance: assignment-2
2 instances selected
0
15:39
16:39
Network packets out (c...
CPU credit usage (count)
CPU credit balance (cou...
1
0.5
0
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