**Terraform-06**

**1.Watch the Terraform-06 video.**

**2.Execute the script shown in the video.**

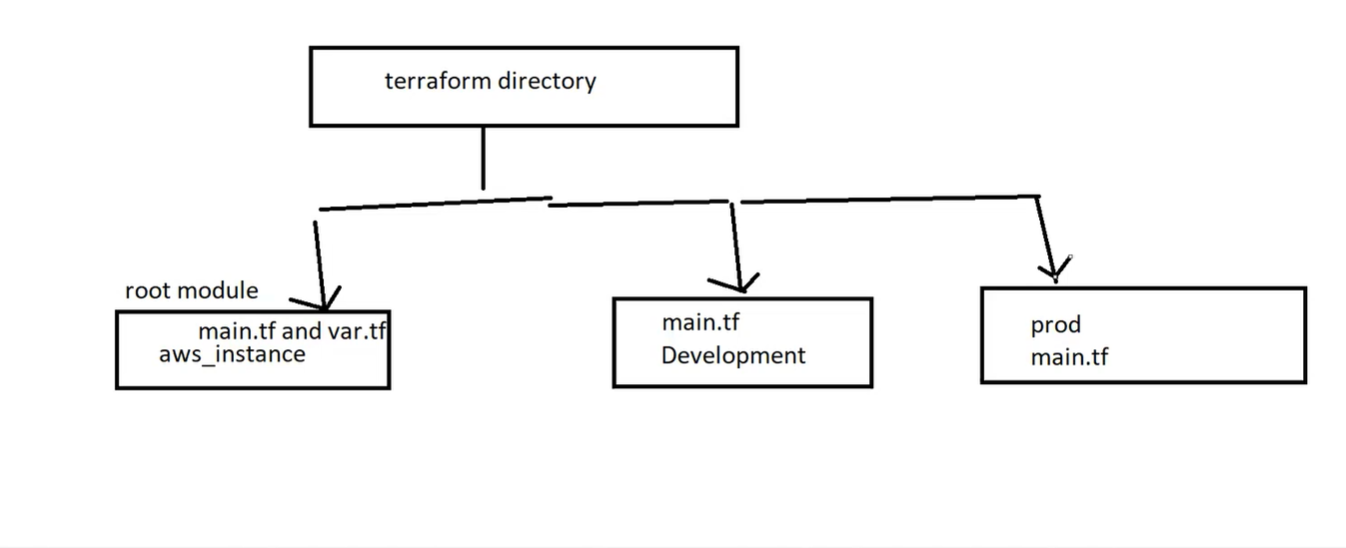
Terraform Modules:

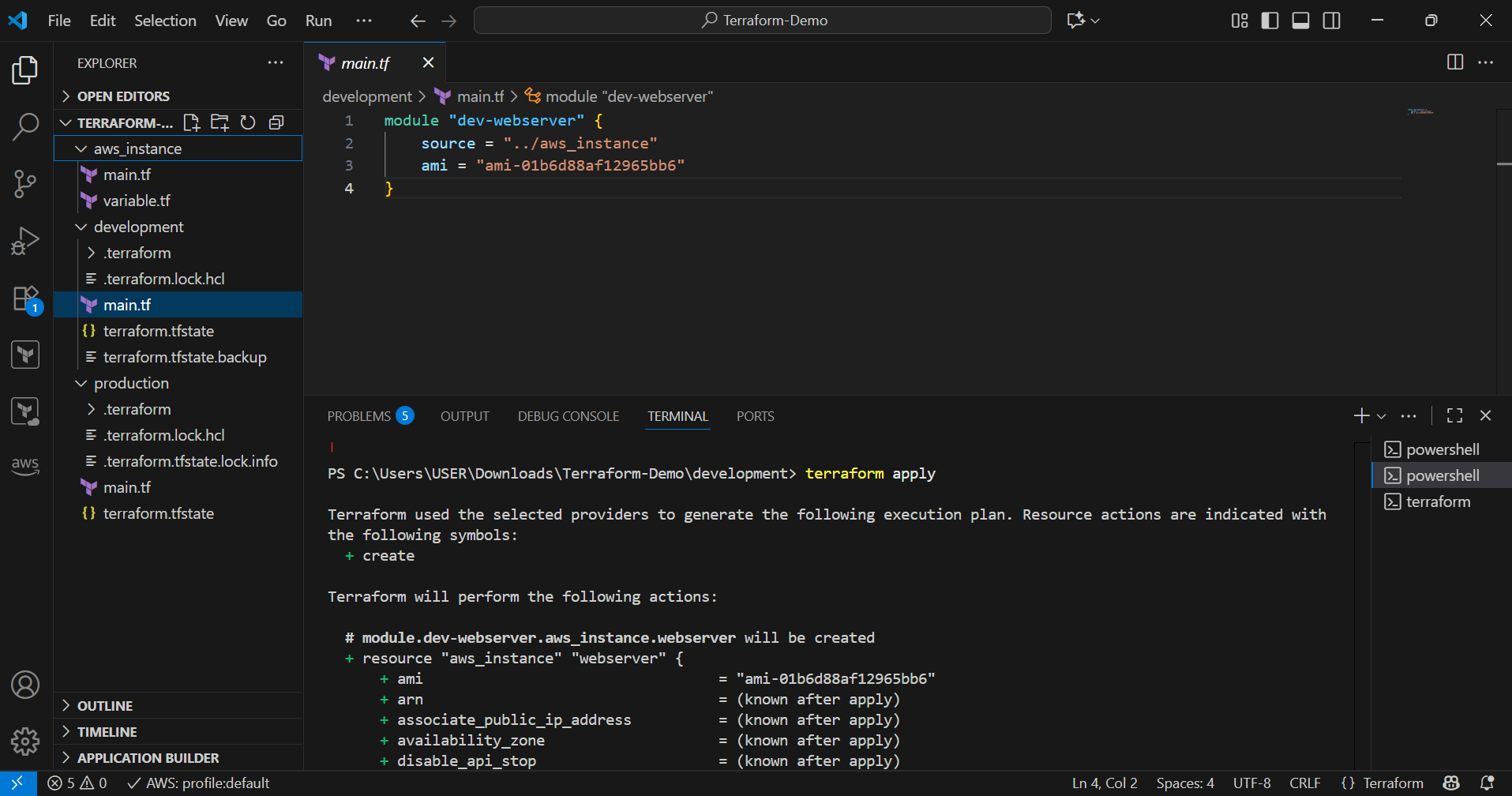
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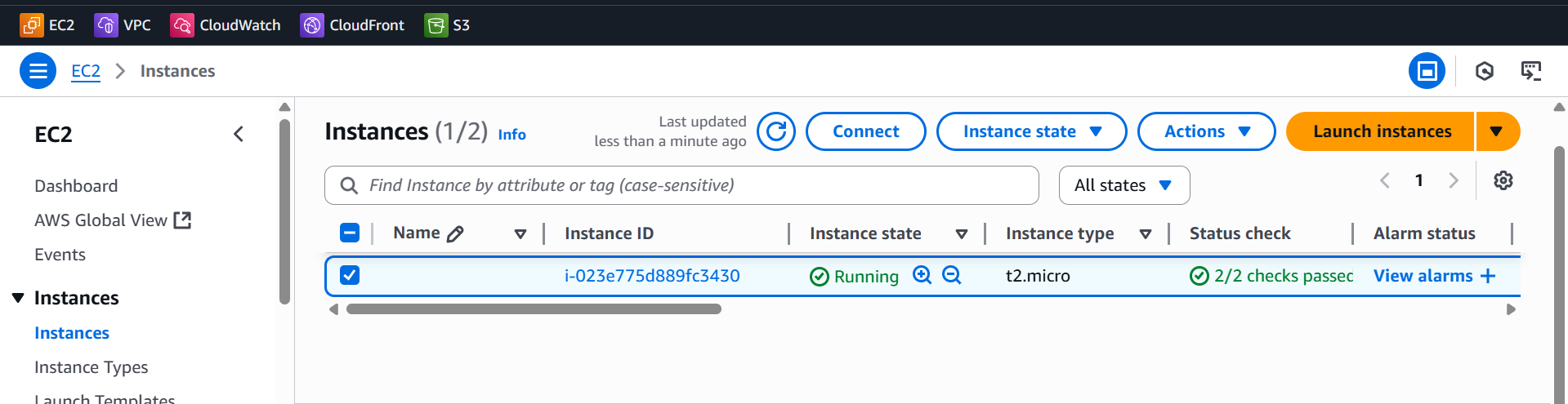
Modules is a collection of configuration files in a directory.

For example if we want to create two ec2 for different environemnts

then i can create a directory for aws-instance configuration.

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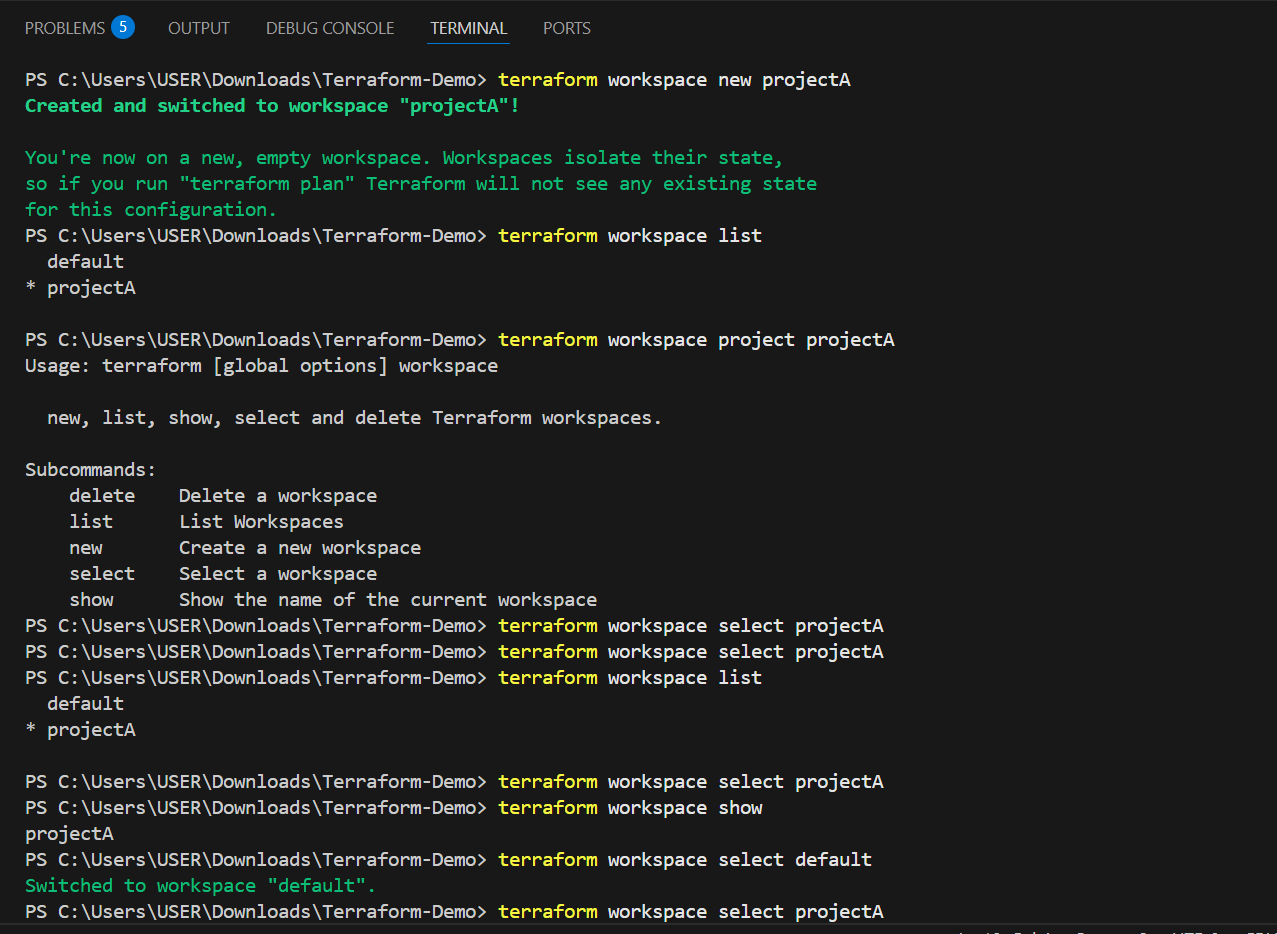
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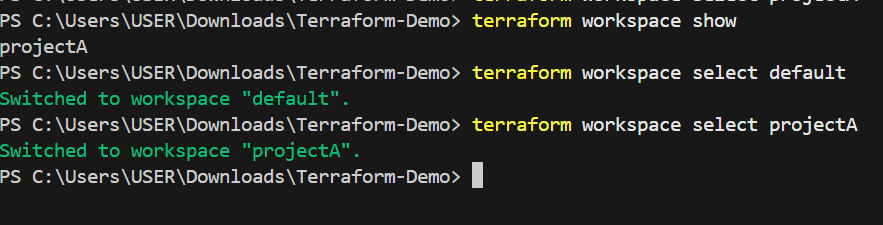
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Terraform workspaces:

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Workspace can be used if we have multiple project/environments using the same configuration.

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Workspace commands:

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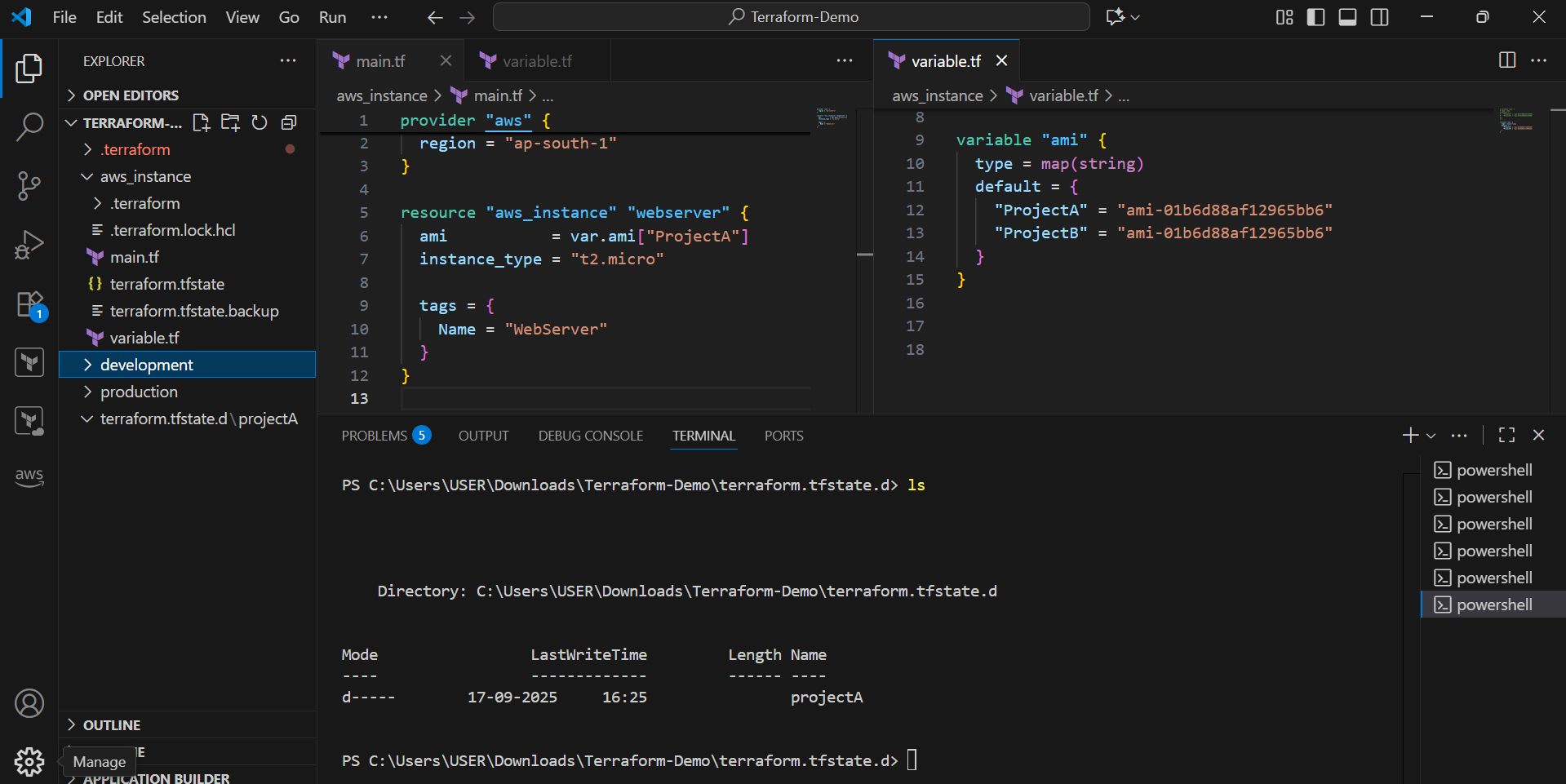
terraform workspace new projectA --> to create a workspace names projectA

terraform workspace list --> to list the workspaces available

terraform workspace selecr projectA --> to swtich to specific workspace

when using workspaces state files will be created in the main directory

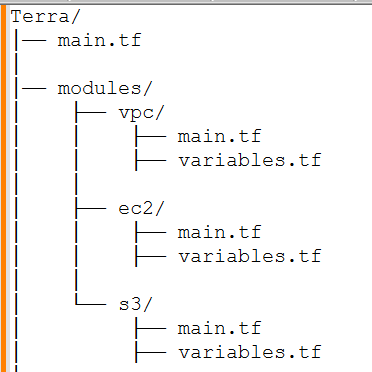
under a forlder "terraform.tfstate.d"

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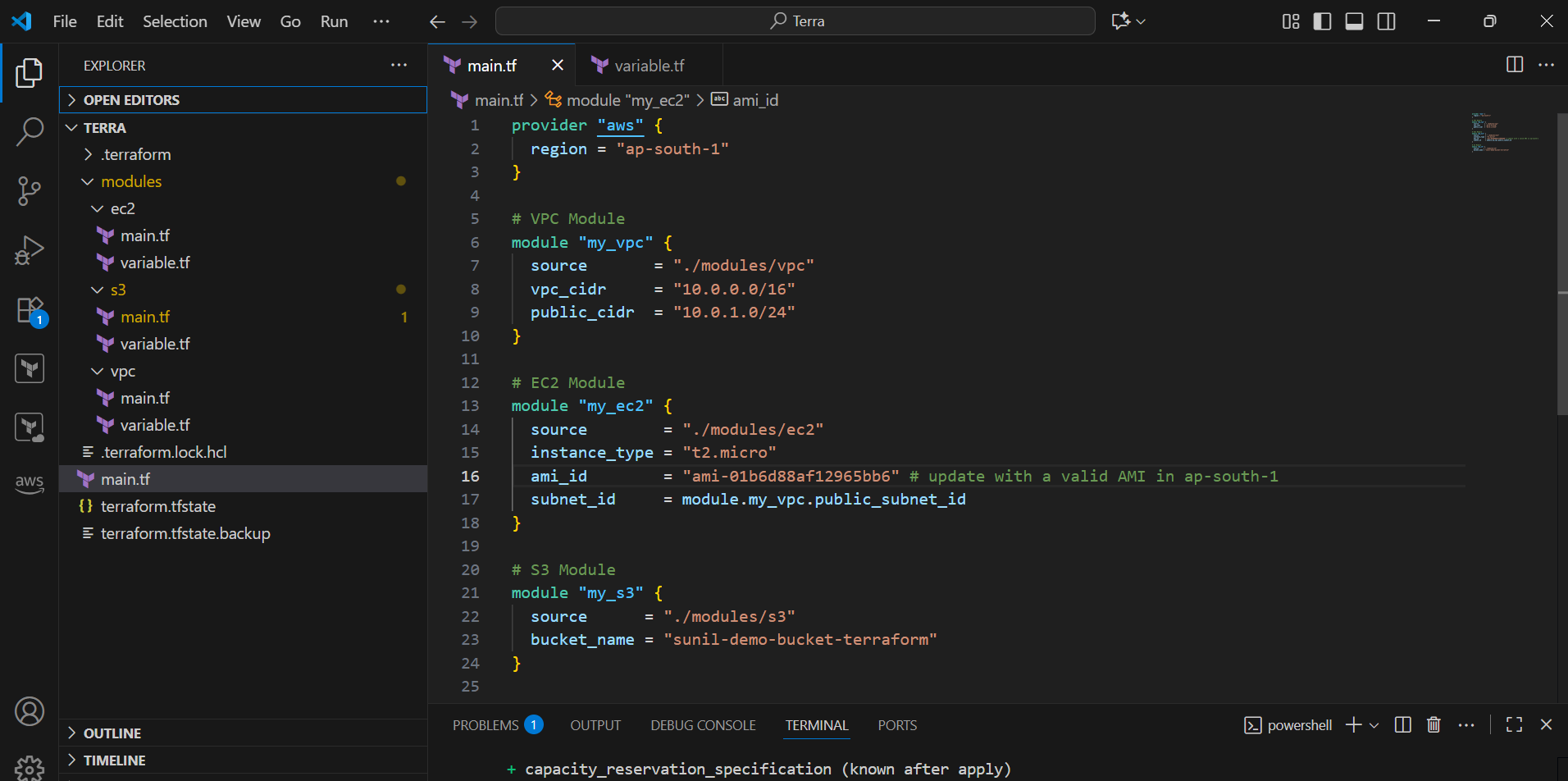
**3.Provision EC2, S3, and VPC using Terraform modules.**

**structure** step by step with re-usable modules.

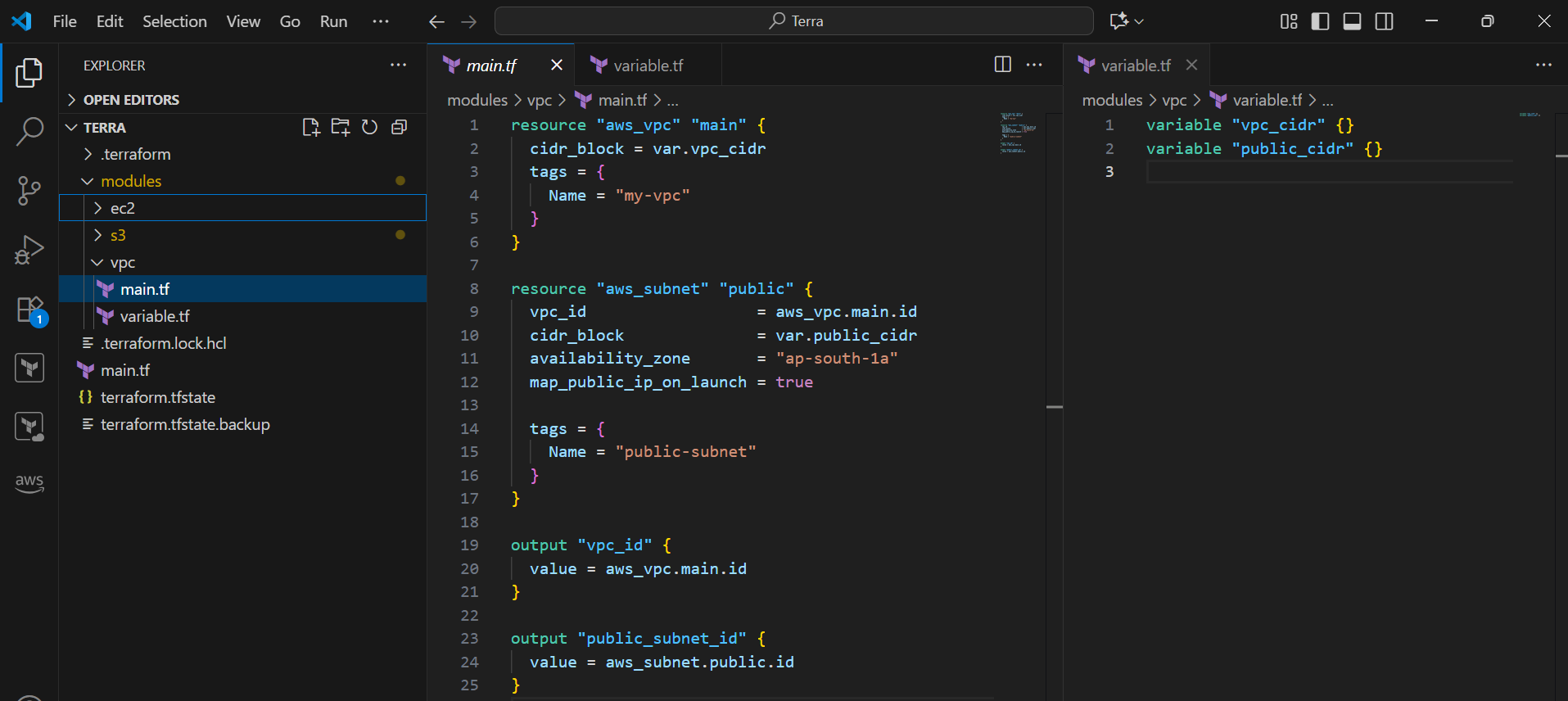
provision **EC2, S3, and VPC using Terraform modules**.

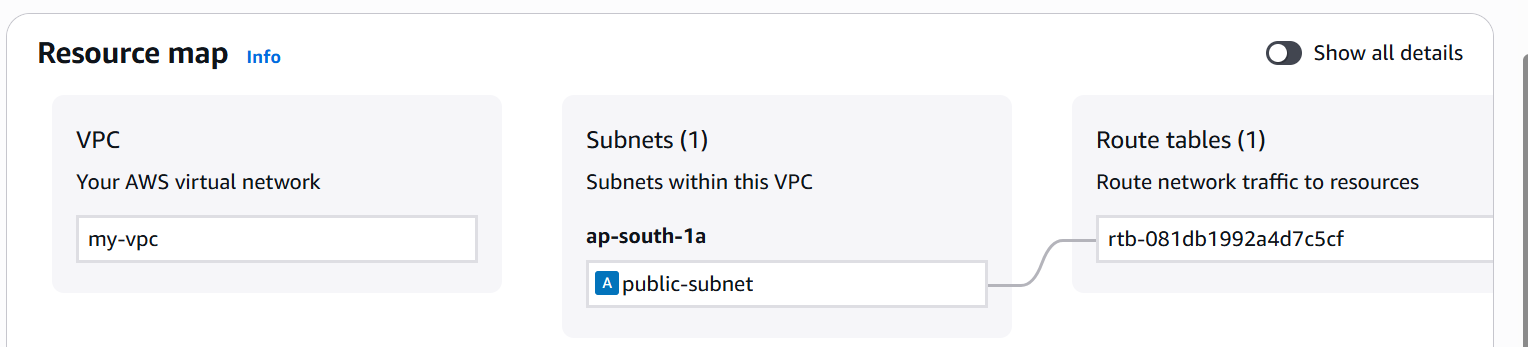
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**Main.tf**

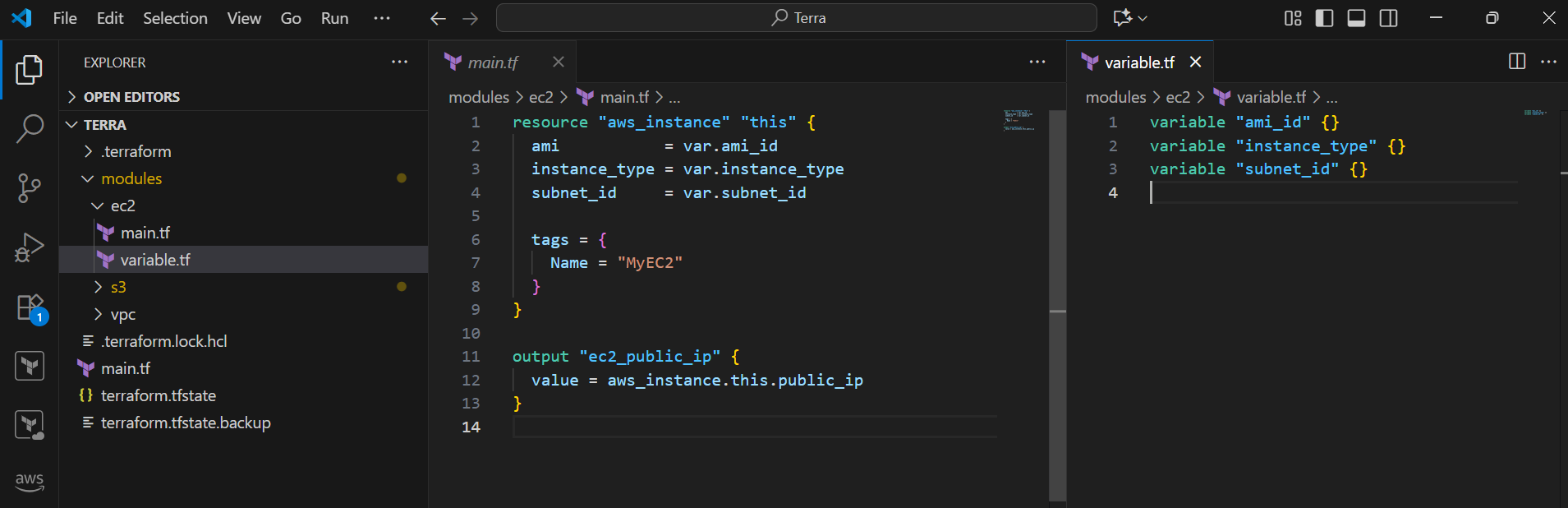
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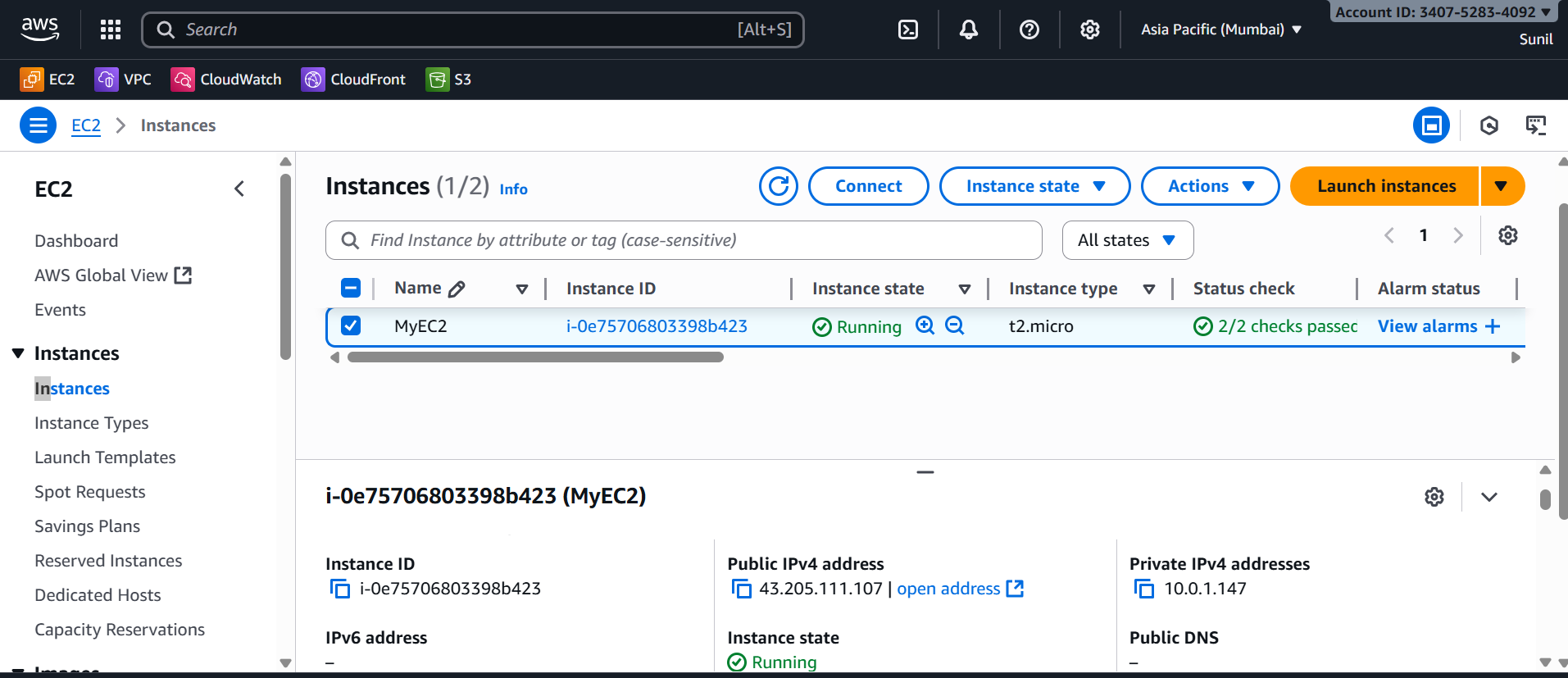
VPC Module (modules/vpc/main.tf,variable.tf)

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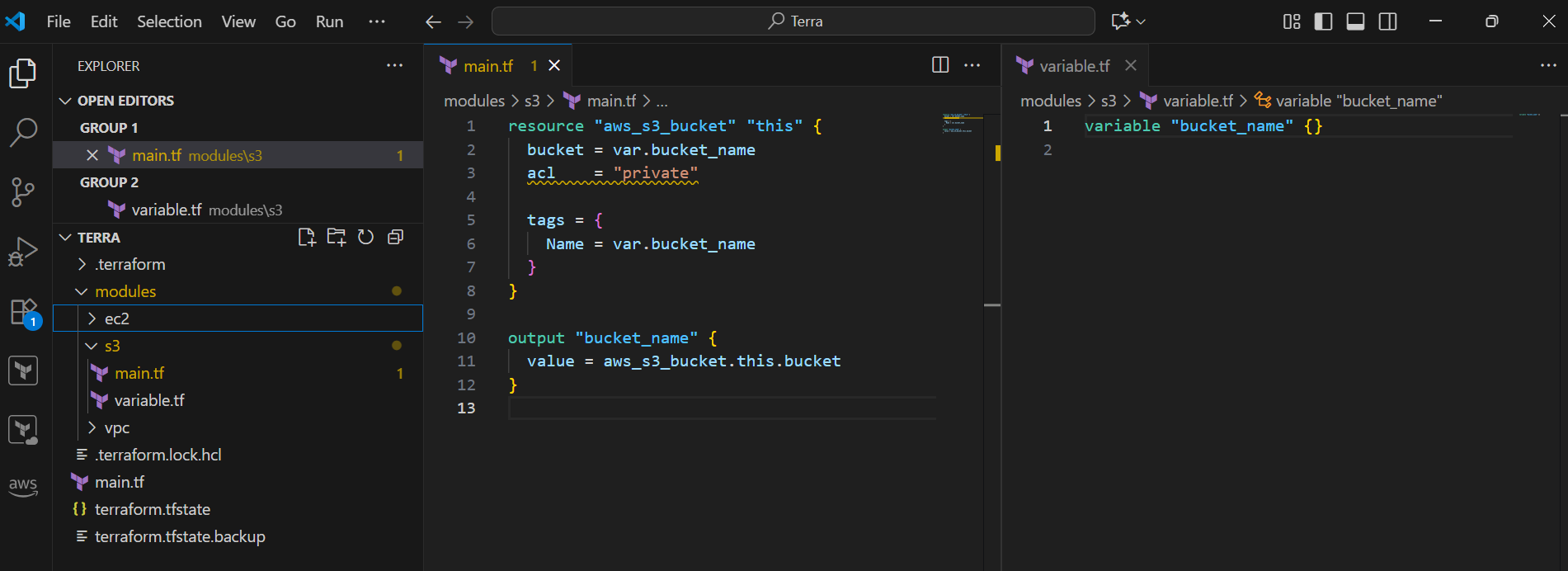
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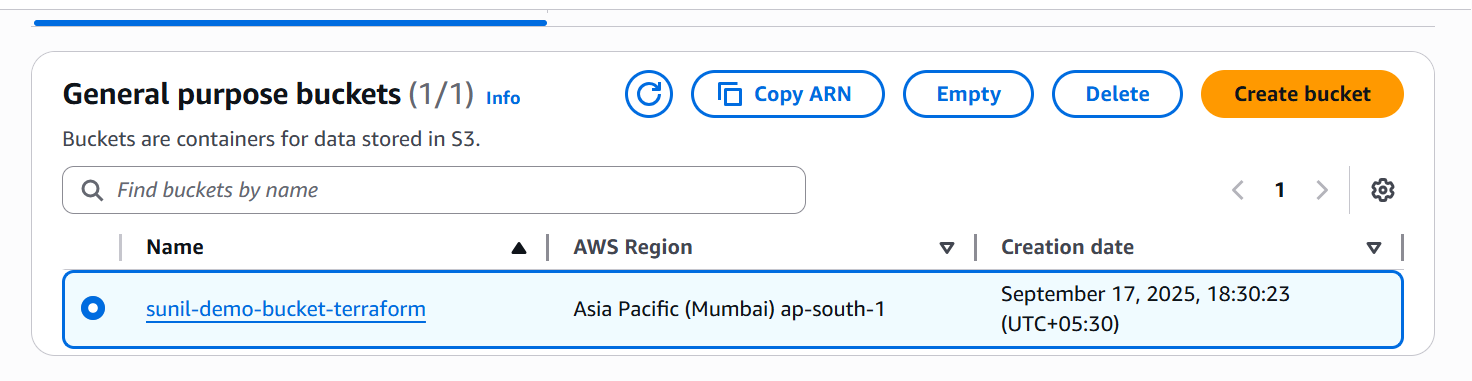
**EC2 Module (modules/ec2/main.tf)**

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S3 Module (modules/s3/main.tf)

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**4.Provision EC2 for 3 different environments (Dev, Staging, and Prod) using Terraform workspaces.**

### ****Step 1: Initialize Workspaces****

First create 3 workspaces:

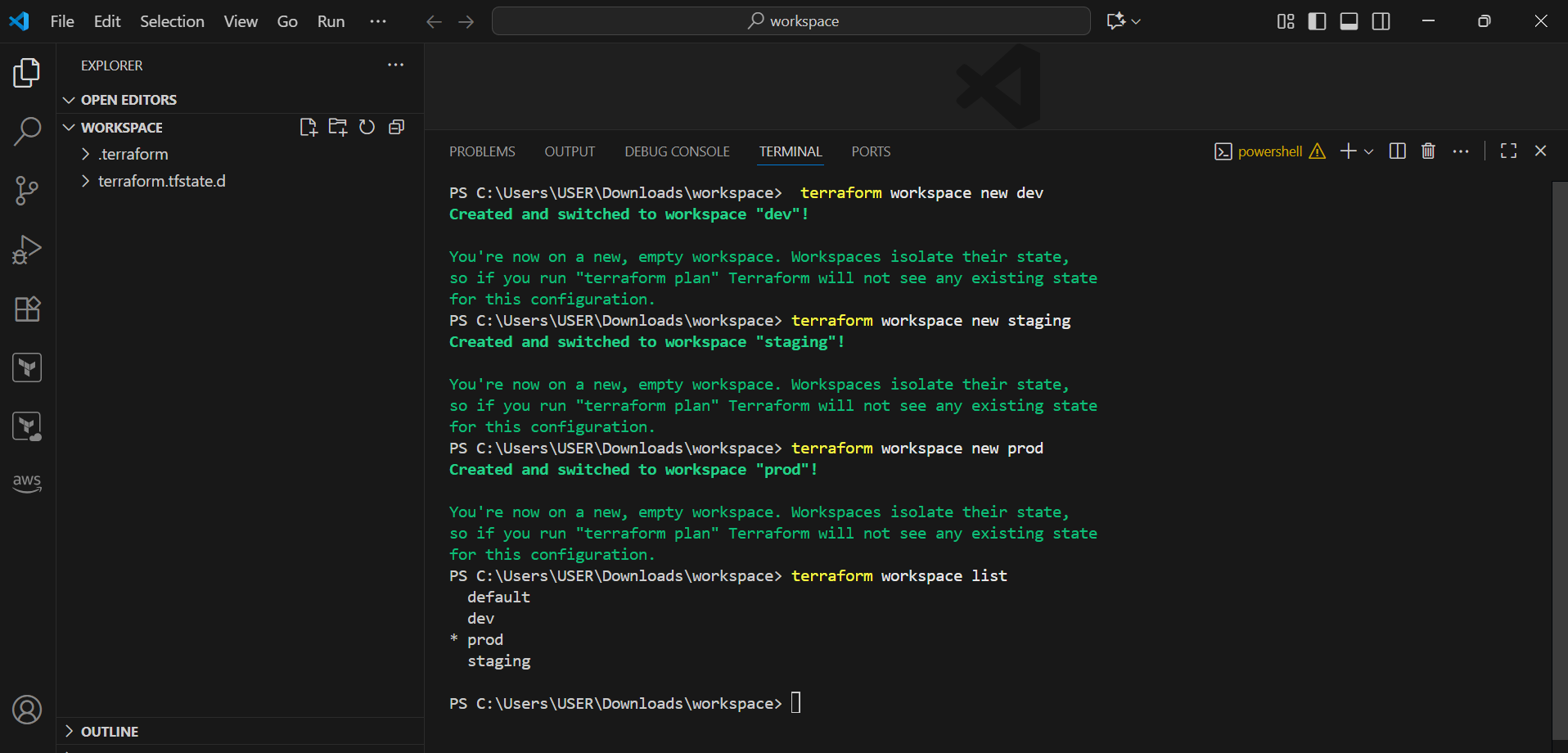
terraform workspace new dev

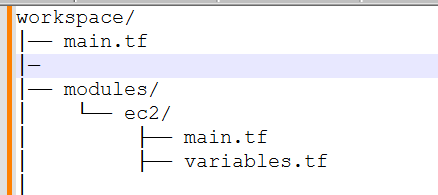
terraform workspace new staging

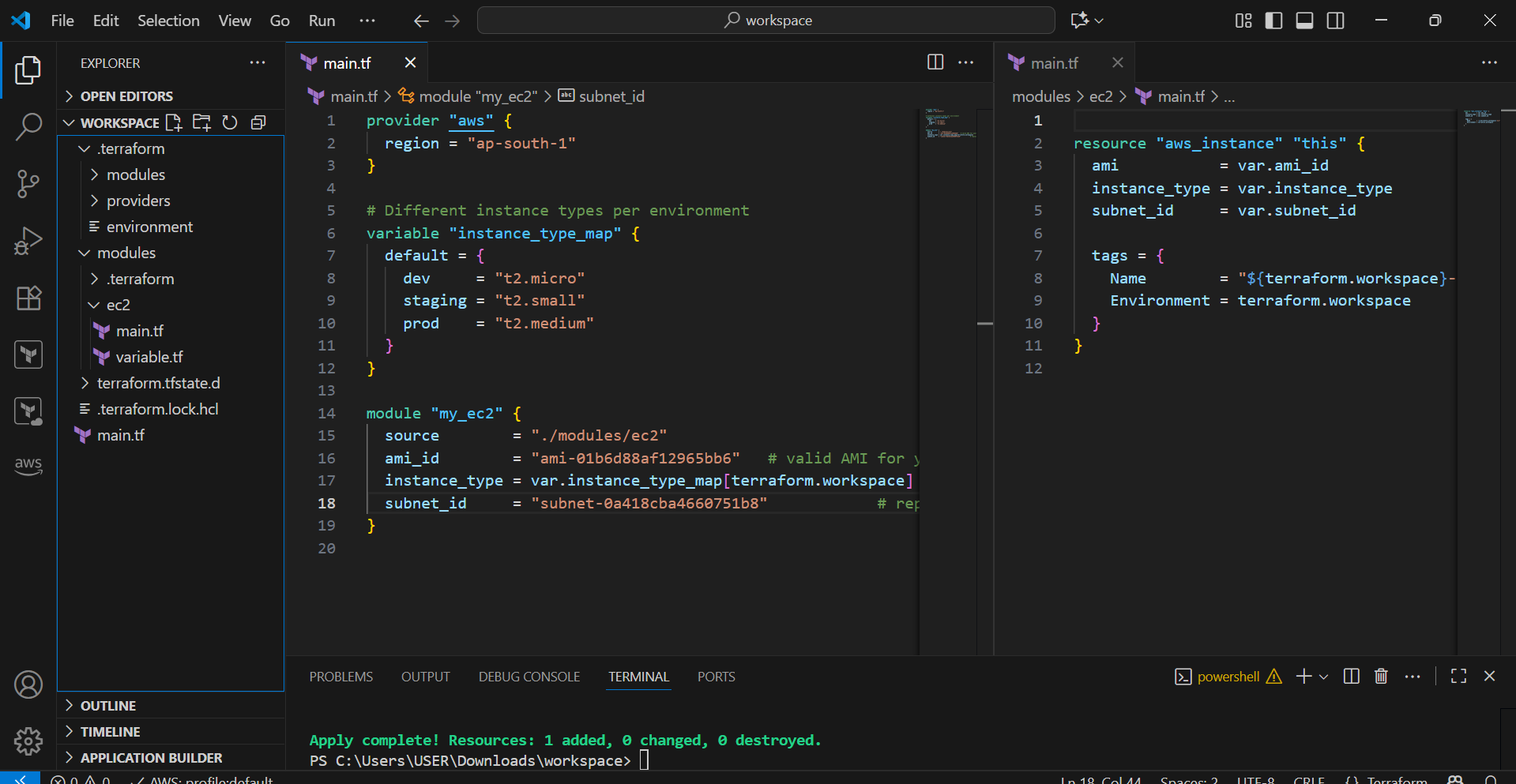
terraform workspace new prod

Verify:

terraform workspace list

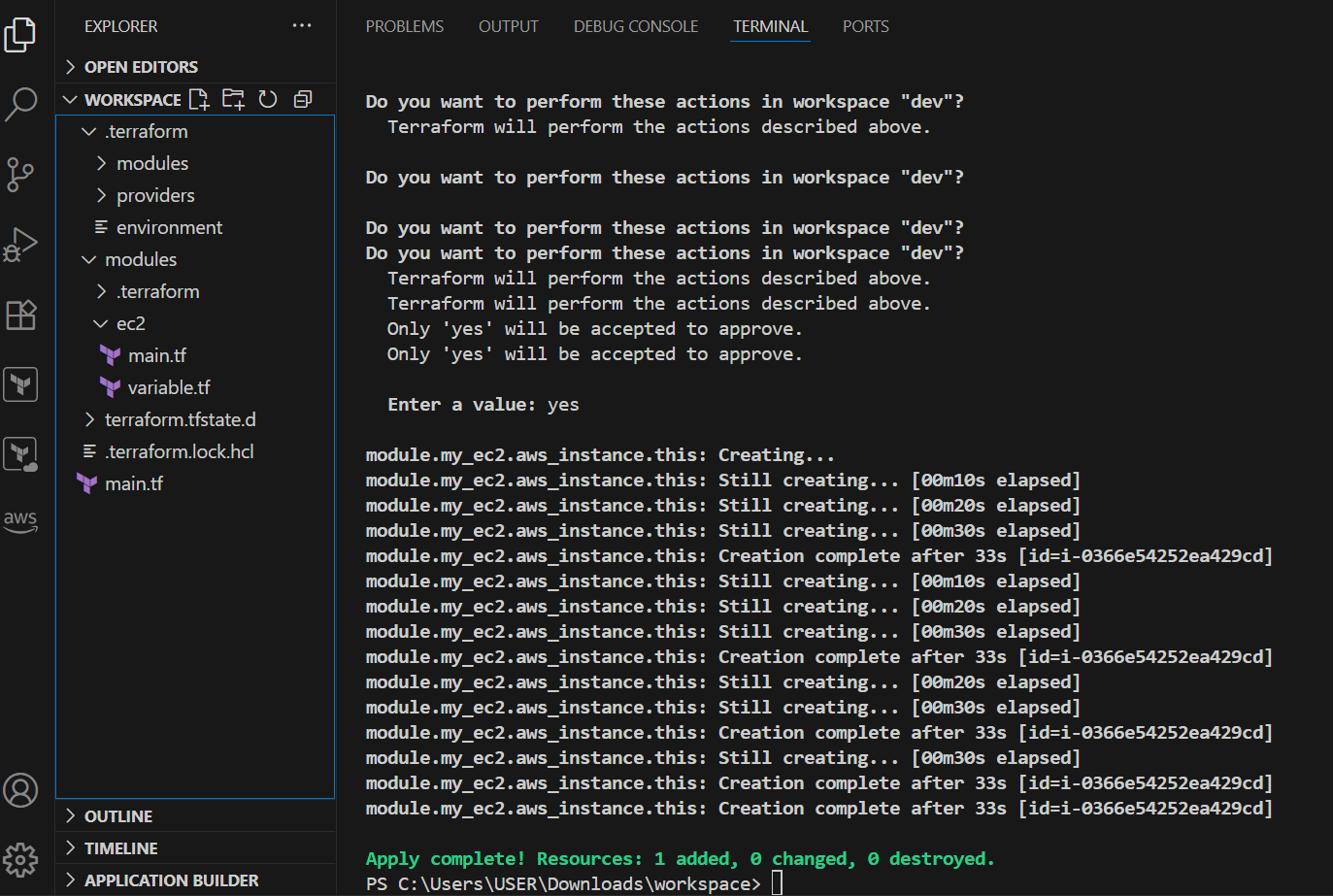
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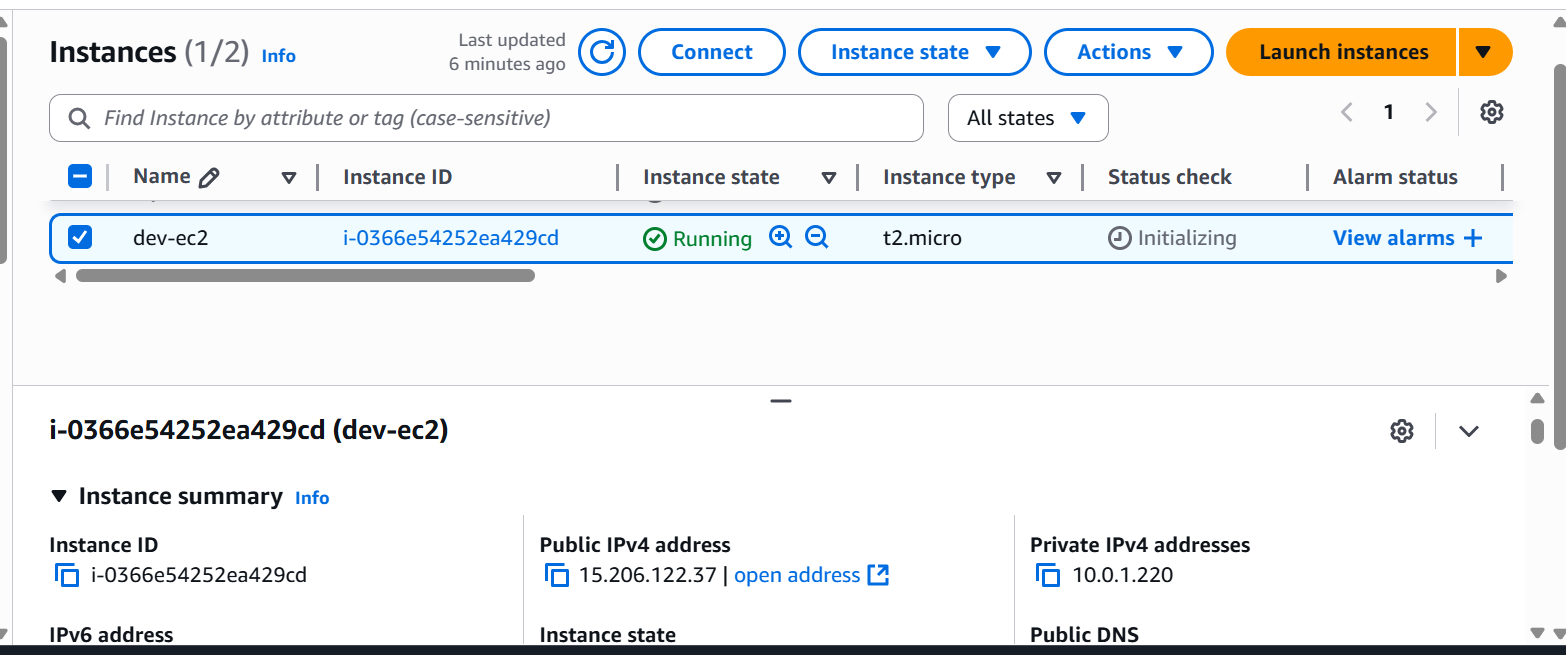
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**terraform workspace select dev**

**terraform apply -auto-approve**

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**Similarly do the same process for staging and prod**

terraform workspace select staging

terraform apply -auto-approve

terraform workspace select prod

terraform apply -auto-approve