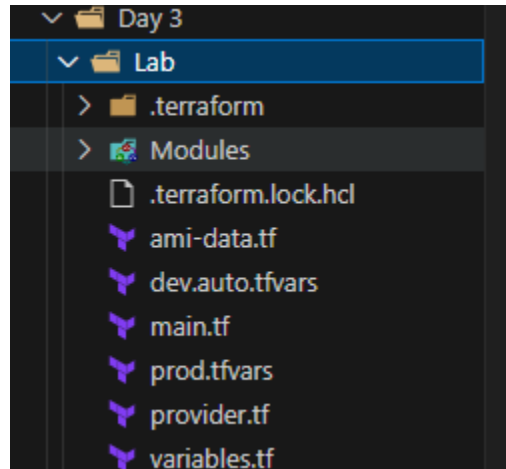1-separate network resources into network module
2-upload infrastructure code on github project
3-verify your email in ses service
4-create lambda function to send email
5-create s3 event notification to detect changes in state file and send the email

Day 3
Lab
.terraform
Modules
.terraform.lock.hcl
ami-data.tf
dev.auto.tfvars
main.tf
prod.tfvars
provider.tf
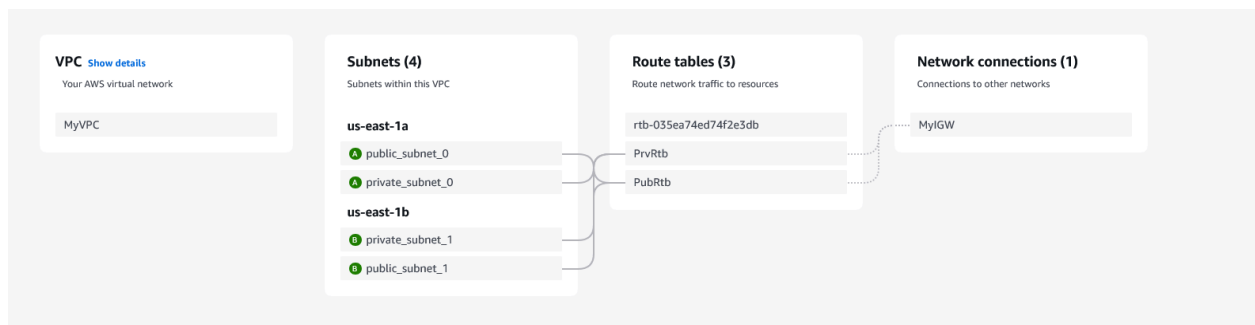variables.tf

```hcl
module "Network" {
  source             = "./Modules/Network"
  vpc_cidr           = var.vpc_cidr
  pub_subnet_cidr    = var.pub_subnet_cidr
  priv_subnet_cidr   = var.priv_subnet_cidr
  Pub_subnet_Count   = var.Pub_subnet_Count
  Priv_subnet_Count  = var.Priv_subnet_Count
  Pub_Rtb_Cidr       = var.Pub_Rtb_Cidr
  Priv_Rtb_Cidr      = var.Priv_Rtb_Cidr
  subnets            = var.subnets
}
module "Compute" {
  source            = "./Modules/Compute"
  instance_type     = var.instance_type
  Subnets           = module.Network.Subnets_list
  ami_id            = data.aws_ami.ubuntu.id
  Allow_SSH         = module.Network.SecUrity_Group_ID_Allow_SSH
  APP_SG            = module.Network.SecUrity_Group_ID_APP_SG
  ssh_key_name      = var.ssh_key_name
  ssh_key_bits      = var.ssh_key_bits
  ssh_algorithm     = var.ssh_algorithm
  local_file_name   = var.local_file_name
  file_permission   = var.file_permission
  instances         = var.instances
}
module "Storage" {
  source    = "./Modules/Storage"
  DBPass    = var.DBPass
  Subnets   = module.Network.Subnets_list
  SG_DB     = module.Network.SecUrity_Group_ID_DB
  redis_SG  = module.Network.SecUrity_Group_ID_Redis
}

module "Email" {
  source = "./Modules/Email"
  email  = var.email
}
```

VPC Show details	Subnets (4)	Route tables (3)	Network connections (1)
Your AWS virtual network	Subnets within this VPC	Route network traffic to resources	Connections to other networks
MyVPC	**us-east-1a**	rtb-035ea74ed74f2e3db	MyIGW
	(A) public_subnet_0	PrvRtb	
	(A) private_subnet_0	PubRtb	
	us-east-1b		
	(B) private_subnet_1		
	(B) public_subnet_1		

send-email-lambda

▼ Function overview   Info

[**Diagram** | Template]

λ **send-email-lambda**

≋ Layers   (0)

🪣 **S3**

＋ **Add destination**

＋ **Add trigger**

Code	Test	Monitor	**Configuration**	Aliases	Versions

General configuration

Triggers

Permissions

Destinations

Function URL

Triggers (1) Info

🔍 Find triggers

☐ | **Trigger**

☐   🪣 **S3: tfstatebktseifhendawyiti**
        arn:aws:s3:::tfstatebktseifhendawyiti
        ▶ **Details**

Identities (1) Info
Last updated Just now ↻   [Check for recommendations] [Send test email] [Delete] [**Create identity**]

🔍 Search all identities

‹ 1 › ⚙

☐	Identity ▽	Identity type ▽	Identity status ▽
☐	seifhendawy1@gmail.com	Email address	⊘ Verification pending

Identities (1) Info
Last updated Just now ↻   [Check for recommendations] [Send te...]

🔍 Search all identities

☐	Identity ▽	Identity type ▽	Identity status
☐	seifhendawy1@gmail.com	Email address	⊘ Verified

Email list (top)

me — Infrastructure Change Notification - A change has occurred in your infrastructure. Please review the changes made and verify if everything is functioning as expected.

me — Infrastructure Change Notification - A change has occurred in your infrastructure. Please review the changes made and verify if everything is functioning as expected.

me — Infrastructure Change Notification - A change has occurred in your infrastructure. Please review the changes made and verify if everything is functioning as expected.

Terraform output

```
Terraform will perform the following actions:

  # module.Network.aws_vpc.MyVPC2 will be destroyed
  # (because aws_vpc.MyVPC2 is not in configuration)
  - resource "aws_vpc" "MyVPC2" {
      - arn                              = "arn:aws:ec2:us-east-1:741448929900:vpc/vpc-0
a6cbde28643fe482" -> null
      - assign_generated_ipv6_cidr_block = false -> null
      - cidr_block                       = "10.2.0.0/16" -> null
      - default_network_acl_id           = "acl-07aee43e833ddfa64" -> null
      - default_route_table_id           = "rtb-0664c04b6bf6ac840" -> null
      - default_security_group_id        = "sg-029fe3b72fe360645" -> null
      - dhcp_options_id                  = "dopt-0fbbaa5b1f6d2e349" -> null
      - enable_dns_hostnames             = false -> null
      - enable_dns_support               = true -> null
      - enable_network_address_usage_metrics = false -> null
      - id                               = "vpc-0a6cbde28643fe482" -> null
      - instance_tenancy                 = "default" -> null
      - ipv6_netmask_length              = 0 -> null
      - main_route_table_id              = "rtb-0664c04b6bf6ac840" -> null
      - owner_id                         = "741448929900" -> null
      - tags                             = {
          - "Name" = "MyVPC2"
        } -> null
      - tags_all                         = {
          - "Name" = "MyVPC2"
        } -> null
        # (4 unchanged attributes hidden)
    }

Plan: 0 to add, 0 to change, 1 to destroy.
module.Network.aws_vpc.MyVPC2: Destroying... [id=vpc-0a6cbde28643fe482]
module.Network.aws_vpc.MyVPC2: Destruction complete after 1s

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

D:\Education\ITI\9M\Cloud Platform Development ITI\Week 28\Terraform\Day 3\Lab
terraform destroy --auto-approve
```

Gmail inbox (right)

- Starred
- Snoozed
- Sent
- Drafts
- More

Labels

- [Imap]/Drafts

Everything else — 1-25 of 18,838

		me	Infrastructure Change Notification -	3:09 PM
me	Infrastructure Change Notification -	3:08 PM
me	Infrastructure Change Notification -	3:08 PM
me	Infrastructure Change Notification -	2:59 PM
me	Infrastructure Change Notification -	2:59 PM
me	Infrastructure Change Notification -	2:59 PM
me	Infrastructure Change Notification -	2:59 PM
Google	Security alert - A new sign-in on ...	2:47 PM
Amazon Web Services 2	Amazon Web Services – Email Add...	2:36 PM
Glassdoor Community	How far is your gym from your pla...	12:19 PM
LinkedIn Job Alerts	Seif: 11 new jobs - VOIS Platform S...	10:38 AM
Team Unstop	Apply to ONGC, BHEL, IOCL & 40+...	9:43 AM
LinkedIn Job Alerts	"devops engineer": DevOps Playgr...	8:37 AM
Team Unstop	Job at Lambda Test! - View details...	8:37 AM
LinkedIn Job Alerts 2	"devops engineer": FlairsTech - Se...	6:37 AM
LinkedIn Job Alerts	30+ new jobs in Egypt - View jobs i...	4:37 AM
LinkedIn Job Alerts	"devops engineer": Neuriva.AI - Az...	12:37 AM

Infrastructure Change Notification (Inbox)

Infrastructure Change Notification — Inbox

seifhendawy1@gmail.com via amazons... 3:09 PM (0 minutes ago)

to me

Be careful with this message.

This may be a spoofed message. The message claims to have been sent from your account, but Gmail couldn't verify the actual source. Avoid clicking links or replying with sensitive information, unless you are sure you actually sent this message. (No need to reset your password, the real sender does not actually have access to your account!)

Report spam | Looks safe

A change has occurred in your infrastructure. Please review the changes made and verify if everything is functioning as expected.

Reply | Forward