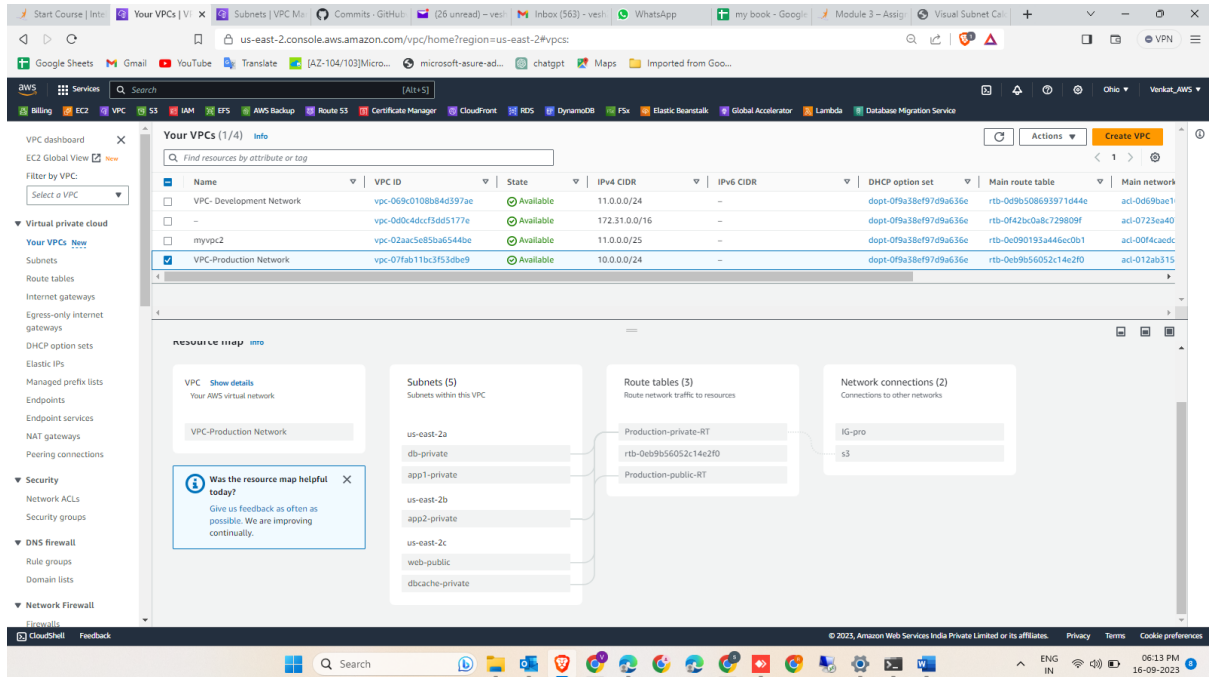


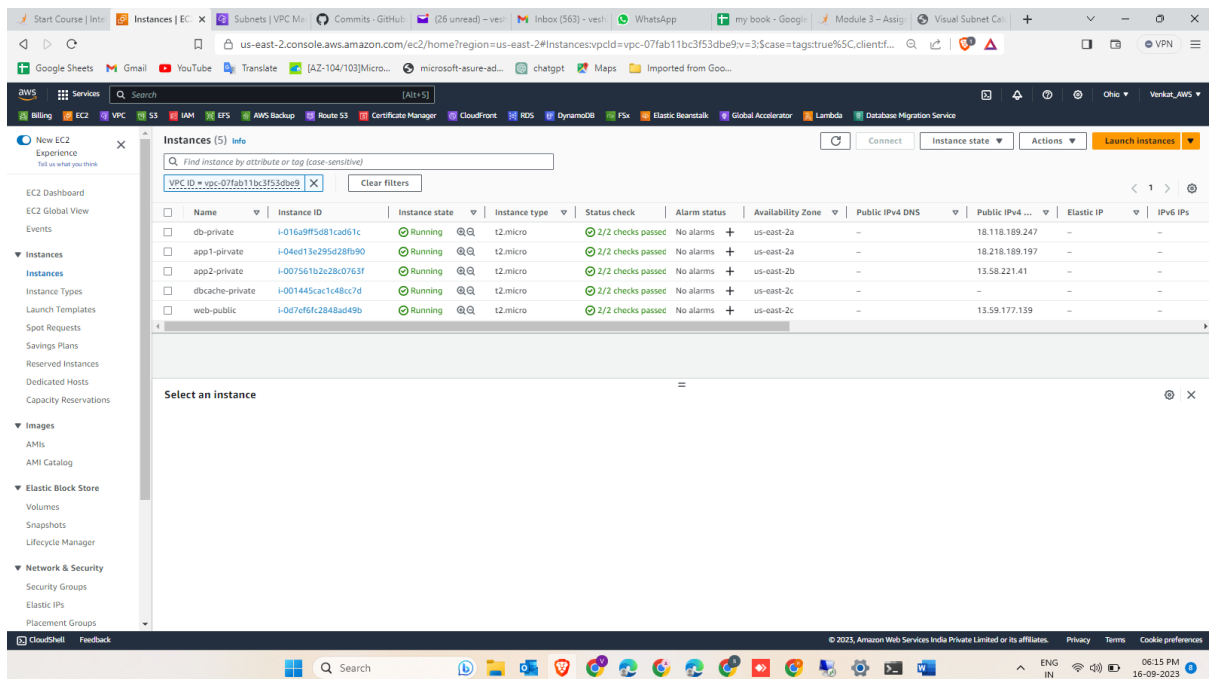
Module 4 - Assignment

Production Network

1. Created five subnets. Among them, four privates with names app1, app2, dbcache, and db, and the fifth one public with the name web.

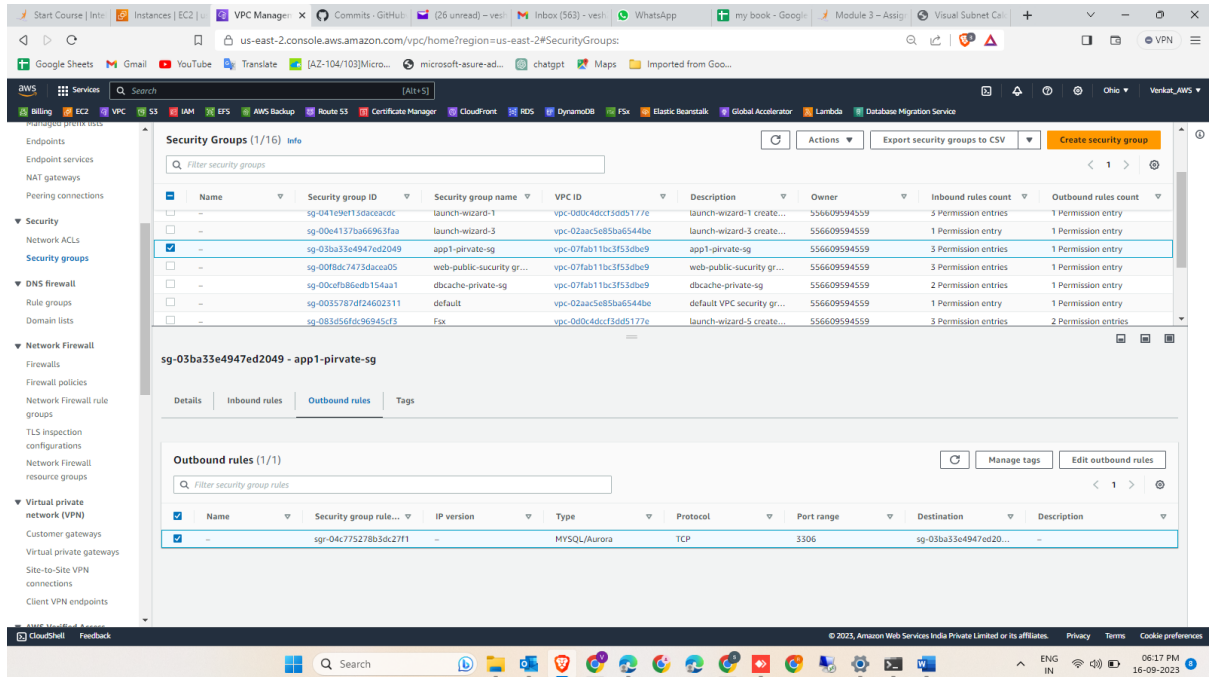


2. Launched instances in all subnets, and name them as per the subnet as they are launched in.



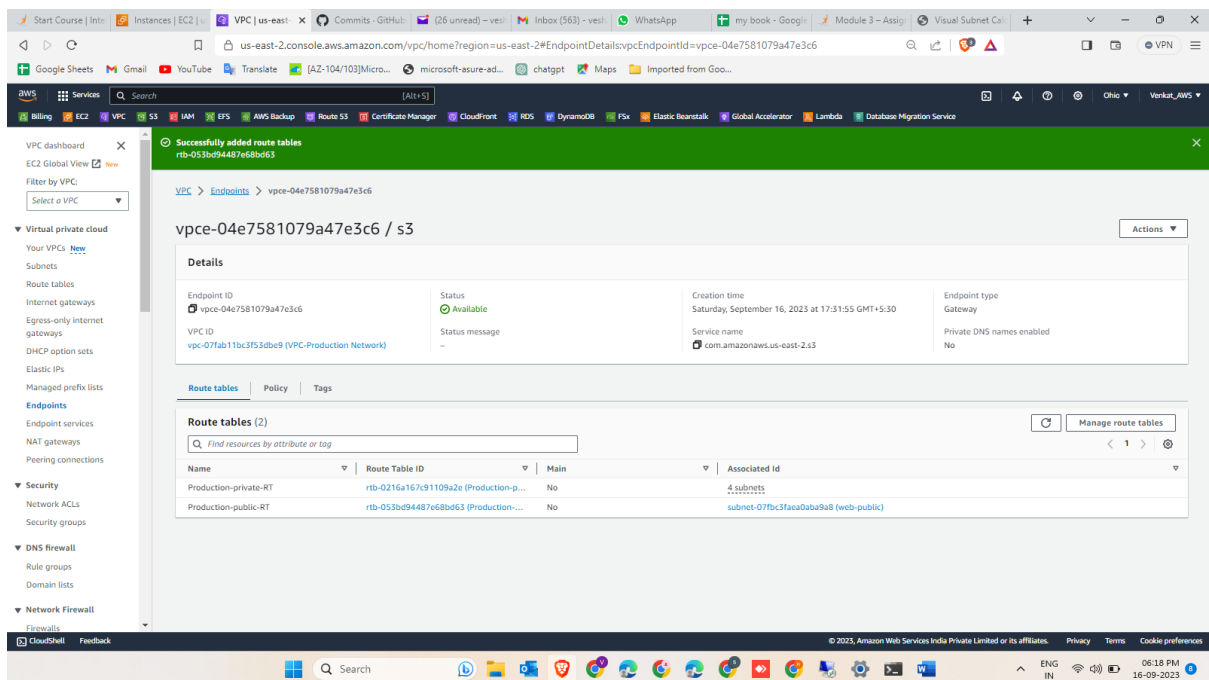
Module 4 - Assignment

3. The dbcache instance can send Internet requests to app1 subnet.



The screenshot shows the AWS Management Console interface. The left sidebar displays the navigation menu with categories like Billing, EC2, VPC, IAM, EFS, AWS Backup, Route 53, Certificate Manager, CloudFront, RDS, DynamoDB, FSx, Elastic Beanstalk, Global Accelerator, Lambda, and Database Migration Service. The main content area is titled 'Security Groups (1/16) Info'. A table lists several security groups, including 'sg-03ba33e4947ed2049' (app1-private-sg) which is selected. Below the table, the 'Outbound rules' for this group are shown, consisting of a single rule named 'sg-04c775278b3dc27f1' that allows traffic to 'sg-03ba33e4947ed2049' on port 3306 (MySQL/Aurora).

4. Created a VPC Endpoint for the S3 service, and we can access the objects in any bucket from within the VPC.



The screenshot shows the AWS Management Console interface. The left sidebar displays the navigation menu. The main content area is titled 'VPC dashboard'. A notification banner at the top states 'Successfully added route tables rtb-053bd94487e68bd63'. The main content area shows the details for a VPC endpoint named 'vpce-04e7581079a47e3c6 / s3'. The endpoint is in a 'Available' state. Below the details, the 'Route tables' section shows two route tables: 'Production-private-RT' and 'Production-public-RT', both associated with the endpoint.

Module 4 - Assignment

Development Network

1. Created two subnets named web and db, and launch instances in both subnets, naming them as per the subnet names.

This screenshot shows the AWS Management Console interface for the 'Your VPCs' section. The 'VPC-Development Network' is selected, and the 'Resource map' is displayed. The resource map shows the VPC, its subnets (us-east-2a, dev-sub-1a, us-east-2b, dev-sub-db-1a), route tables (development-RT, rtb-0d9b508693971d44e), and network connections (IG-dev). The console also shows the 'Subnets (2)' section with details for 'us-east-2a' and 'us-east-2b'.

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	DHCP option set	Main route table	Main network
VPC-Development Network	vpc-069c0108b84d397ae	Available	11.0.0.0/24	-	dopt-0f9a38ef97d9a636e	rtb-0d9b508693971d44e	acl-0d69bae1
-	vpc-0d9c4dcccfd5d5177e	Available	172.31.0.0/16	-	dopt-0f9a38ef97d9a636e	rtb-0f42bc0a8c729809f	acl-0723ea40
myvpc2	vpc-02aac5e85ba6544be	Available	11.0.0.0/25	-	dopt-0f9a38ef97d9a636e	rtb-0c090193a446c0b1	acl-00f4cad0
VPC-Production Network	vpc-07fab11bc3f53bbe9	Available	10.0.0.0/24	-	dopt-0f9a38ef97d9a636e	rtb-0eb9b56052c14e2f0	acl-012ab315

This screenshot shows the AWS Management Console interface for the 'Instances' section. The 'Instances (2)' table is displayed, showing two instances: 'dev-web-1a-tier' and 'dev-dbi-tier'. The 'dev-web-1a-tier' instance is running on a t2.micro instance type in the us-east-2a availability zone. The 'dev-dbi-tier' instance is running on a t2.micro instance type in the us-east-2b availability zone. The console also shows the 'Select an instance' dialog box.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP	IPv6 IPs
dev-web-1a-tier	i-09cc3a6b21ce61c06	Running	t2.micro	2/2 checks passed	No alarms	us-east-2a	-	-	-	-
dev-dbi-tier	i-08c32391aba1610ed	Running	t2.micro	2/2 checks passed	No alarms	us-east-2b	-	3.138.153.246	-	-

Module 4 - Assignment

- Only web subnet can send Internet requests. Db subnet cannot send the internet requests, because I removed outbound rule.

The screenshot shows the AWS Management Console interface. The left sidebar contains navigation links for VPC dashboard, EC2 Global View, and various services. The main content area displays the 'Security Groups (1/16)' page. A table lists several security groups, with 'sg-01dbb6f4d35eabd45 - dev-web-1a-sg' selected. Below the table, the 'Outbound rules' section shows a single rule: 'sg-057e519c023ae059' with IP version 'IPv4', type 'All traffic', protocol 'All', port range 'All', and destination '0.0.0.0/0'.

Name	Security group ID	Security group name	VPC ID	Description	Owner	Inbound rules count	Outbound rules count
-	sg-028b7977f1219a88	default	vpc-069c0108b84d397ae	default VPC security gr...	556609594559	1 Permission entry	1 Permission entry
-	sg-06912b74421eb61ca	app2-private-sg	vpc-07fab11bc3f53dbe9	app2-private-sg	556609594559	3 Permission entries	1 Permission entry
✓	sg-01dbb6f4d35eabd45	dev-web-1a-sg	vpc-069c0108b84d397ae	dev-web-1a-sg	556609594559	3 Permission entries	1 Permission entry
-	sg-0901b5744a617acb	default	vpc-07fab11bc3f53dbe9	default VPC security gr...	556609594559	1 Permission entry	1 Permission entry
-	sg-041e9ef13daceacd	launch-wizard-1	vpc-0d0c4dcf3dd5177e	launch-wizard-1 create...	556609594559	3 Permission entries	1 Permission entry
-	sg-00ea4137ba66963faa	launch-wizard-3	vpc-02aac5e8bba6544be	launch-wizard-3 create...	556609594559	1 Permission entry	1 Permission entry

Name	Security group rule...	IP version	Type	Protocol	Port range	Destination	Description
✓	sg-057e519c023ae059	IPv4	All traffic	All	All	0.0.0.0/0	-

The screenshot shows the AWS Management Console interface. The left sidebar contains navigation links for VPC dashboard, EC2 Global View, and various services. The main content area displays the 'Security Groups (1/16)' page. A table lists several security groups, with 'sg-004c3c1a5d5ad6165 - dev-db-tier-1b-sg' selected. Below the table, the 'Outbound rules' section shows a single rule: 'sg-0b0c2e14f286feb1e' with IP version 'IPv4', type 'All traffic', protocol 'All', port range 'All', and destination '0.0.0.0/0'.

Name	Security group ID	Security group name	VPC ID	Description	Owner	Inbound rules count	Outbound rules count
-	sg-0035787df24602311	default	vpc-02aac5e8bba6544be	default VPC security gr...	556609594559	1 Permission entry	1 Permission entry
-	sg-083d56f0c96945cf3	fx	vpc-0d0c4dcf3dd5177e	launch-wizard-5 create...	556609594559	3 Permission entries	2 Permission entries
✓	sg-004c3c1a5d5ad6165	dev-db-tier-1b-sg	vpc-069c0108b84d397ae	dev-db-tier-1b-sg	556609594559	2 Permission entries	0 Permission entries
-	sg-0b0c2e14f286feb1e	default	vpc-0d0c4dcf3dd5177e	default VPC security gr...	556609594559	2 Permission entries	1 Permission entry
-	sg-0ea0fc3006303d7d4	launch-wizard-2	vpc-02aac5e8bba6544be	launch-wizard-2 create...	556609594559	2 Permission entries	1 Permission entry
-	sg-03236a0df6750c4fd	launch-wizard-4	vpc-0d0c4dcf3dd5177e	launch-wizard-4 create...	556609594559	1 Permission entry	1 Permission entry

Name	Security group rule...	IP version	Type	Protocol	Port range	Destination	Description
✓	sg-0b0c2e14f286feb1e	IPv4	All traffic	All	All	0.0.0.0/0	-

Module 4 - Assignment

- Created a peering connection between the production network and the development network.

The screenshot shows the AWS Management Console interface for the 'Peering connections' page. The left sidebar contains navigation links for various AWS services. The main content area displays a table of peering connections. The table has columns for Name, Peering connection ID, Status, Requester VPC, Acceptor VPC, Requester CIDR, Acceptor CIDRs, Requester owner ID, and Acceptor owner ID. Two connections are listed, both with a status of 'Active'. Below the table, the 'Route tables' tab is selected, showing a list of route tables associated with the peering connection. The table has columns for Route table ID, VPC ID, Main, and Associated with. Two route tables are listed: 'rtb-0216a167c91109a2e' and 'rtb-0a055818653634958'. The bottom of the console shows the Windows taskbar with various application icons and the system clock.

Name	Peering connection ID	Status	Requester VPC	Acceptor VPC	Requester CIDR	Acceptor CIDRs	Requester owner ID	Acceptor owner ID
DEV-PRo	pcx-01c46e9799a001fd	Active	vpc-0be05b0c6cbe405b	vpc-02aac5e85ba6544be / my...	10.0.0.0/24	11.0.0.0/25	556609594559	556609594559
	pcx-09b095808514dc947	Active	vpc-07fab11bc3f53dbe9 / VP...	vpc-069c0108b84c397ae / VP...	10.0.0.0/24	11.0.0.0/24	556609594559	556609594559

Route table ID	VPC ID	Main	Associated with
rtb-0216a167c91109a2e / Production-private-RT	vpc-07fab11bc3f53dbe9 / VPC-Production Network	No	4 subnets
rtb-0a055818653634958 / development-RT	vpc-069c0108b84c397ae / VPC-Development Network	No	2 subnets

- Created a connection between the db subnets of both the production network and the development network.

The screenshot shows the AWS Management Console interface for the 'Route tables' page. The left sidebar contains navigation links for various AWS services. The main content area displays a table of route tables. The table has columns for Name, Route table ID, Explicit subnet associations, Edge associations, Main, VPC, and Owner ID. Two route tables are listed: 'Production-private-RT' and 'development-RT'. Below the table, the 'Routes' tab is selected, showing a list of routes associated with the route tables. The table has columns for Destination, Target, Status, and Propagated. Three routes are listed: 'pl-7ba54012', '0.0.0.0/0', and '10.0.0.0/24'. The bottom of the console shows the Windows taskbar with various application icons and the system clock.

Name	Route table ID	Explicit subnet associations	Edge associations	Main	VPC	Owner ID
Production-private-RT	rtb-0216a167c91109a2e	4 subnets	-	No	vpc-07fab11bc3f53dbe9 / VPC...	556609594559
development-RT	rtb-0a055818653634958	2 subnets	-	No	vpc-069c0108b84c397ae / VPC...	556609594559
-	rtb-0d9b508693971644e	-	-	Yes	vpc-069c0108b84c397ae / VPC...	556609594559
-	rtb-0f42bcb08c729809f	-	-	Yes	vpc-0d0c4dcd3d5177e	556609594559
-	rtb-0e090193446ec0b1	-	-	Yes	vpc-02aac5e85ba6544be / myv...	556609594559
-	rtb-0eb9656052c14e2f0	-	-	Yes	vpc-07fab11bc3f53dbe9 / VPC...	556609594559
Production-public-RT	rtb-053bd94487e68bd63	subnet-077bc3fae0aba9...	-	No	vpc-07fab11bc3f53dbe9 / VPC...	556609594559

Destination	Target	Status	Propagated
pl-7ba54012	vpce-04c7581079a47e3c6	Active	No
0.0.0.0/0	pcx-09b095808514dc947	Active	No
10.0.0.0/24	local	Active	No

Module 4 - Assignment

The screenshot shows the AWS Management Console interface for Route Tables in the us-east-2 region. The left sidebar contains navigation links for VPC dashboard, EC2 Global View, and various services. The main content area displays a list of route tables. The 'development-RT' route table is selected, and its details are shown in the 'Routes' tab. The routes table shows two routes: one for destination 0.0.0.0/0 pointing to target pcr-09b095808514dc947, and another for destination 11.0.0.0/24 pointing to target local. Both routes are active.

Name	Route table ID	Explicit subnet associati...	Edge associations	Main	VPC	Owner ID
Production-private-RT	rtb-0216a167c91109a2e	4 subnets	-	No	vpc-07fab11bc3f53dbe9 VPC...	556609594559
development-RT	rtb-0a055818653634958	2 subnets	-	No	vpc-069c0108b84c397ae VPC...	556609594559
-	rtb-0d9b508693971d44e	-	-	Yes	vpc-069c0108b84c397ae VPC...	556609594559
-	rtb-0f42bc0a8c729809f	-	-	Yes	vpc-0d0c4dcf3dd5177e	556609594559
MYRT	rtb-0e0901933446ec0b1	-	-	Yes	vpc-02aac5e85ba6544de myv...	556609594559
-	rtb-0eb9b56052c14e2f0	-	-	Yes	vpc-07fab11bc3f53dbe9 VPC...	556609594559
Production-public-RT	rtb-053bd94487e68bd63	subnet-07fbc3faa0aba9...	-	No	vpc-07fab11bc3f53dbe9 VPC...	556609594559

Destination	Target	Status	Propagated
0.0.0.0/0	pcr-09b095808514dc947	Active	No
11.0.0.0/24	local	Active	No