

# VPC Tasks-01

- Create VPC with 2 private and 2 public subnets.

<input type="checkbox"/> Private-sub	subnet-05242ffffd63527883	<input checked="" type="radio"/> Available	vpc-0da9b96a292e58c82   Test-vpc	<input type="radio"/> Off	172.168.0.0/28
<input type="checkbox"/> Public-sub	subnet-0279d0606bfef189e	<input checked="" type="radio"/> Available	vpc-0da9b96a292e58c82   Test-vpc	<input type="radio"/> Off	172.168.0.32/27
<input type="checkbox"/> Pri-sub	subnet-0e2d051b0ddf80e60	<input checked="" type="radio"/> Available	vpc-0da9b96a292e58c82   Test-vpc	<input type="radio"/> Off	172.168.0.80/28
<input type="checkbox"/> Pub-sub	subnet-0621f2affd3c2e6ab	<input checked="" type="radio"/> Available	vpc-0da9b96a292e58c82   Test-vpc	<input type="radio"/> Off	172.168.0.112/28

Select a subnet

- Enable DNS Hostname in VPC.

Details					
VPC ID	<input type="checkbox"/> vpc-0da9b96a292e58c82	<input checked="" type="radio"/> State Available	Block Public Access	<input type="radio"/> Off	DNS hostnames Enabled
DNS resolution	Enabled	Tenancy default	DHCP option set	<a href="#">dopt-054937f55b4bc2575</a>	Main route table -
Main network ACL	-	Default VPC No	IPv4 CIDR	172.168.0.0/24	IPv6 pool -
IPv6 CIDR (Network border group)	-	Network Address Usage metrics Disabled	Route 53 Resolver DNS Firewall rule groups	-	Owner ID <a href="#">526018540742</a>

- Enable Auto Assign Public IP in 2 public subnets.

subnet-0279d0606bfef189e / Public-sub					
Details	Flow logs	Route table	Network ACL	CIDR reservations	Sharing Tags
<strong>Details</strong>					
Subnet ID <a href="#">subnet-0279d0606bfef189e</a>	Subnet ARN <a href="#">arn:aws:ec2:us-east-1:526018540742:subnet/subnet-0279d0606bfef189e</a>	<input checked="" type="radio"/> State Available	IPv4 CIDR -	VPC <a href="#">vpc-0da9b96a292e58c82   Test-vpc</a>	Auto-assign public IPv4 address Yes
IPv4 CIDR <a href="#">172.168.0.32/27</a>	Available IPv4 addresses <a href="#">27</a>	<input type="radio"/> IPv6 CIDR -	Network border group <a href="#">us-east-1</a>	Output ID -	
Availability Zone <a href="#">use1-az2 (us-east-1b)</a>	Default subnet No	<input checked="" type="radio"/> Network ACL -	Auto-assign customer-owned IPv4 address -		

subnet-0621f2affd3c2e6ab / Pub-sub					
Details	Flow logs	Route table	Network ACL	CIDR reservations	Sharing Tags
<strong>Details</strong>					
Subnet ID <a href="#">subnet-0621f2affd3c2e6ab</a>	Subnet ARN <a href="#">arn:aws:ec2:us-east-1:526018540742:subnet/subnet-0621f2affd3c2e6ab</a>	<input checked="" type="radio"/> State Available	IPv4 CIDR -	VPC <a href="#">vpc-0da9b96a292e58c82   Test-vpc</a>	Auto-assign public IPv4 address Yes
IPv4 CIDR <a href="#">172.168.0.112/28</a>	Available IPv4 addresses <a href="#">11</a>	<input type="radio"/> IPv6 CIDR -	Network border group <a href="#">us-east-1</a>	Output ID -	
Availability Zone <a href="#">use1-az2 (us-east-1b)</a>	Default subnet No	<input checked="" type="radio"/> Network ACL -	Auto-assign customer-owned IPv4 address -		

# VPC Tasks-01

- Add 2 private subnets in private route table.

**rtb-0fb103b14d7a2c239 / Test-tab**

Details <a href="#">Info</a>		Main	Explicit subnet associations 2 subnets
Route table ID	<a href="#">rtb-0fb103b14d7a2c239</a>	<input type="checkbox"/> No	
VPC	vpc-0da9b96a292e58c82   Test-vpc	Owner ID	<a href="#">526018540742</a>

[Routes](#) [Subnet associations](#) [Edge associations](#) [Route propagation](#) [Tags](#)

**Explicit subnet associations (2)**

Name	Subnet ID	IPv4 CIDR
Private-sub	<a href="#">subnet-05242fffd63527883</a>	172.168.0.0/28
Pri-sub	<a href="#">subnet-0e2d051b0ddf80e60</a>	172.168.0.80/28

- Add 2 public subnets in public route table.

**rtb-0c576e1eccce3b766 / Pub-tab**

Details <a href="#">Info</a>		Main	Explicit subnet associations 2 subnets
Route table ID	<a href="#">rtb-0c576e1eccce3b766</a>	<input type="checkbox"/> No	
VPC	vpc-0da9b96a292e58c82   Test-vpc	Owner ID	<a href="#">526018540742</a>

[Routes](#) [Subnet associations](#) [Edge associations](#) [Route propagation](#) [Tags](#)

**Explicit subnet associations (2)**

Name	Subnet ID	IPv4 CIDR
Public-sub	<a href="#">subnet-0279d0606bfef189e</a>	172.168.0.32/27
Pub-sub	<a href="#">subnet-0621f2affd3c2e6ab</a>	172.168.0.112/28

- Public route table will have the routes to internet and local.

**Routes (2)**

Destination	Target	Status	Propagated	Route Origin
0.0.0.0/0	<a href="#">igw-0436b6f51e1b610a7</a>	<span>Active</span>	No	Create Route
172.168.0.0/24	local	<span>Active</span>	No	Create Route Table

# VPC Tasks-01

- Create EC2 in public subnet with t2.micro and install PHP.

```
The authenticity of host '44.204.47.194 (44.204.47.194)' can't be established.  
ED25519 key fingerprint is SHA256:7npdIpGcrVk6e6yLTI0sRVQXFct6gydWRRjjnAiE05k.  
This key is not known by any other names  
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes  
Warning: Permanently added '44.204.47.194' (ED25519) to the list of known hosts.  
 , #  
 ~\_\ ####_ Amazon Linux 2023  
 ~~ \#####\  
 ~~ \###|  
 ~~ \#/ ____ https://aws.amazon.com/linux/amazon-linux-2023  
 ~~ V~' '--->  
 ~~ /  
 ~~ .--.  
 ~~ / /  
 ~~ /m/'  
[ec2-user@ip-172-168-0-56 ~]$ systemctl status httpd  
● httpd.service - The Apache HTTP Server  
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; preset: disabled)  
   Drop-In: /usr/lib/systemd/system/httpd.service.d  
             └─php-fpm.conf  
     Active: active (running) since Tue 2026-01-06 09:52:36 UTC; 1min 18s ago  
       Docs: man:httpd.service(8)  
 Main PID: 10558 (httpd)
```

- Configure NAT gateway in public subnet and connect to private instance.

```
[ec2-user@ip-172-168-0-56 ~]$ chmod 600 Linux-key.pem  
[ec2-user@ip-172-168-0-56 ~]$ ssh -i Linux-key.pem ec2-user@172.168.0.9  
 , #  
 ~\_\ ####_ Amazon Linux 2023  
 ~~ \#####\  
 ~~ \###|  
 ~~ \#/ ____ https://aws.amazon.com/linux/amazon-linux-2023  
 ~~ V~' '--->  
 ~~ /  
 ~~ .--.  
 ~~ / /  
 ~~ /m/'  
[ec2-user@ip-172-168-0-9 ~]$ ping google .com  
ping: .com: Name or service not known  
[ec2-user@ip-172-168-0-9 ~]$ ping google.com  
PING google.com (172.253.115.100) 56(84) bytes of data.  
64 bytes from bg-in-f100.1e100.net (172.253.115.100): icmp_seq=1 ttl=105 time=2.40 ms  
64 bytes from bg-in-f100.1e100.net (172.253.115.100): icmp_seq=2 ttl=105 time=1.84 ms  
64 bytes from bg-in-f100.1e100.net (172.253.115.100): icmp_seq=3 ttl=105 time=1.93 ms  
64 bytes from bg-in-f100.1e100.net (172.253.115.100): icmp_seq=4 ttl=105 time=1.84 ms  
64 bytes from bg-in-f100.1e100.net (172.253.115.100): icmp_seq=5 ttl=105 time=1.86 ms  
\C
```

# VPC Tasks-01

- Install Apache Tomcat in private EC2 and deploy a sample app.

```
[ec2-user@ip-172-168-0-9 ~]$ curl 172.168.0.9:8080
<html>
<body>
<h1>Tomcat Sample App Running</h1>
</body>
</html>
```

- Configure VPC flow logs and store the logs in S3 and CloudWatch.

The screenshot shows the AWS CloudWatch Log Events interface. At the top, there's a search bar labeled "Filter events - press enter to search" and a "Actions" dropdown menu. Below the search bar are time range buttons: "Clear", "1m", "30m", "1h", "12h", and "Custom". The main area displays a table of log events with two columns: "Timestamp" and "Message". The "Timestamp" column shows dates from January 2026. The "Message" column contains log entries with various numerical values and error codes like "ACCEPT OK" and "NODATA". A message at the bottom of the list reads "No newer events at this moment. Auto retry paused. [Resume](#)".

Timestamp	Message
2026-01-06T10:51:28.000Z	2 526018540742 eni-05e69328e4106cd04 172.168.0.9 3.94.91.31 36638 123 17 1 76 1767696688 1767696699 ACCEPT OK
2026-01-06T10:51:28.000Z	2 526018540742 eni-05e69328e4106cd04 172.168.0.56 172.168.0.9 60016 22 6 16 1116 1767696688 1767696699 ACCEPT OK
2026-01-06T10:51:28.000Z	2 526018540742 eni-05e69328e4106cd04 3.94.91.31 172.168.0.9 123 36638 17 1 76 1767696688 1767696699 ACCEPT OK
2026-01-06T10:51:28.000Z	2 526018540742 eni-05e69328e4106cd04 172.168.0.56 172.168.0.9 22 60016 6 9 892 1767696688 1767696699 ACCEPT OK
2026-01-06T10:51:58.000Z	2 526018540742 eni-05e69328e4106cd04 172.168.0.9 172.168.0.56 22 55842 6 28 4565 1767696718 1767696719 ACCEPT OK
2026-01-06T10:51:58.000Z	2 526018540742 eni-05e69328e4106cd04 172.168.0.56 172.168.0.9 55842 22 6 35 4881 1767696718 1767696719 ACCEPT OK
2026-01-06T10:52:49.000Z	2 526018540742 eni-05e69328e4106cd04 - - - - - 1767696769 1767696800 - NODATA