AWS VPC Setup Steps

Not like architectural diagram, setting up a VPC environment is not that simple, because it requires to click lots of menus in AWS Console after creating that VPC. Based on my experience, that is not easy to remember, because it's rarely happening process and its complex clicking labors. So I think easy video guide is good enough.

Followings are overall steps associated with VPC

STEP 1. Create two Elastic IP addresses for connection

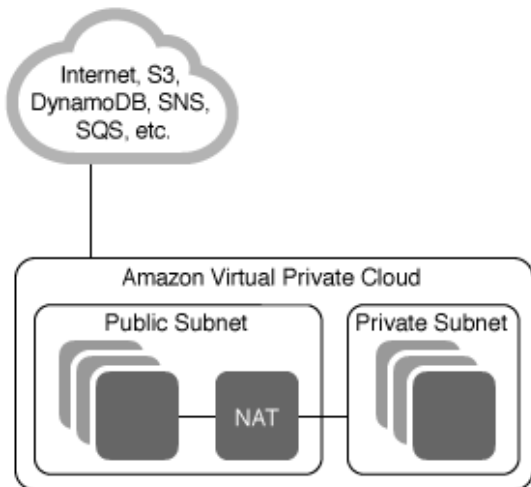https://ap-northeast-2.console.aws.amazon.com/ec2/v2/home?region=ap-northeast-2#Addresses:

- Allocate Elastic IP address and name it

STEP 2. Create VPC

1) AWS Management Console Services from Top menu type "vpc". You can directly connect to that menu at https://ap-northeast-2.console.aws.amazon.com/vpc/home?region=ap-northeast-2

2) Launch VPC wizard: https://ap-northeast-2.console.aws.amazon.com/vpc/home?region=ap-northeast-2#wizardSelector:

- Select VPC with Public and Private Subnets

- Put proper name to VPC Name, Public subnet, Private subnet associated with Availability Zone1.
- Assign Elastic IP designed at STEP 1
- Leave other values as default like IPv4 CIDR block, Hardware tenancy, and etc.

STEP 3. Create internet gateway

- Your gateway would be automatically created. Just name it.

STEP 4. Create Subnets

https://ap-northeast-2.console.aws.amazon.com/vpc/home?region=ap-northeast-2#subnets:sort=SubnetId

Name	IPv4 CIDR	Availability Zone
PublicSubnet-az1	10.0.0.0/24	az1
PrivateSubnet-app-az1	10.0.1.0/24	az1
PrivateSubnet-db-az1	10.0.2.0/24	az1
PublicSubnet-az2	10.0.3.0/24	az3
PrivateSubnet-app-az2	10.0.4.0/24	az3

PrivateSubnet-db-az2	10.0.5.0/24	az3

STEP 5. Set Route Tables

https://ap-northeast-2.console.aws.amazon.com/vpc/home?region=ap-northeast-2#RouteTables:sort=routeTableId

Name Route Table ID by "Elplicit subnet association" and "Main" like below:

Name	Explicit subnet association	Main
PublicRT	subnet-****	No
PrivateRT		Yes

~~STEP 8. Create security group~~

~~1) One default inbound rule will be listed~~

~~2) Add one more a rule : set Type to "SSH" , set Protocol to "TCP" , set Port Range to 22 , set Source to "My IP" . Your IP will be automatically assigned or your can simply assign 0.0.0.0/0~~

~~STEP 9. Create network ACL~~

~~1) One default ACL will be listed, and just rename it in your own way~~

~~2) Set Inbound Rules~~

STEP 11. Create Load Balancer

https://ap-northeast-2.console.aws.amazon.com/ec2/v2/home?region=ap-northeast-2#LoadBalancers:sort=loadBalancerName

Required for scalable service design. You will need to assign VPC Availability Zone that you created at STEP 2 like below:

STEP 10. Creating instances

https://ap-northeast-2.console.aws.amazon.com/ec2/v2/home?region=ap-northeast-2#Instances:

1) Launching Instances Choose an AMI (Amazon Machine Image) Free Tier only (if you are new)

2) Select Network by VPC designed at STEP 2

3) Select Subnet designed at STEP 3 and STEP 5

4) Enable "Auto Assign Public IP"

5) Configure Security Group based on you created at STEP 8

6) Download key Pair for secure connection Launch Instances

Reference: https://www.youtube.com/watch?v=gUesnoDzNr4