

Question 1: DESIGN VPC WITH SUBNETS

As a network engineer, you are required to design a VPC called 'MyVPC' in AWS to host exactly 30 Linux machines in a public subnet called 'PublicNet' and 125 Ubuntu machines to host databases in a private subnet called 'PrivateNet' Explain the detailed steps taken to implement this VPC while emphasizing in all settings such as IPv4 addresses and CIDR.

1. Create MyVPC on AWS
 - A. Select VPC only
 - B. Input IPv4 CIDR manually
 - i. 10.0.0.0/16
 - C. Select No IPv6 CIDR
2. Create 30 PublicNet subnets
 - A. Select MyVPC
 - B. Input subnet name
 - C. Select Zone
 - D. Input IPv4 CIDR
 - i. 10.0.0.0/24
 - E. Add new subnets until you have created 30 subnets and do it again
3. Create 125 PrivateNet subnets
 - A. Select MyVPC
 - B. Input subnet name
 - C. Select Zone
 - D. Input IPv4 CIDR
 - i. 10.0.0.0/24
 - E. Add new subnets until you have created 125 subnets and do it again

Question 2: ATTACH AN IG AND A ROUTE TO PUBLIC SUBNET

You are required to link 'MyVPC' to an internet gateway called 'MyIGate' then route 'PublicNet' to any network with a capacity of 1000 servers. Explain the detailed steps taken to complete the above tasks while highlighting the settings and IPv4 address and CIDR.

1. Create MyIGate internet gateway
2. Attach to MyVPC on Actions menu
3. Create a route table and select MyVPC
4. On Route table -> Actions -> Edit subnet associations menu, select PublicNets and Save