What is virtual private cloud?

We can call virtual private cloud as vpc also

Vpc is nothing but network

Through vpc only authorized people only access network or server

Vpc provides isolated network

It give dedicated network

For 1 vpc there will be only one internet gate way

When traffic goes from outside to server it is called inbound traffic

If traffic goes from server to outside is called out bound traffic

Vpc had subnets and route tables

Routes means it address the traffic

And by default we can’t connect 1vpc to another vpc

In same network we don’t give same ip address

In different network we can give same ips

Private ip we can’t access without permission

Through public ip we can access from any where

To create servers first we need to create network means vpc

VPC Creation

In aws vpc will be there in services

In services it will be there in network and content delivery here we can find vpc

* Go to services
* Next go to Networking and content delivery
* Click on create vpc
* Give tag name
* Next give ipv4 cidr manual input
* In ipv4 cidr give cidr number ex: 192.168.0.0/16
* Next go to vpc and right click on it and enable dns host name
* Now go to subnet
* Create subner
* Give tag name
* Select vpc what you have created
* Give availability zone
* Next in ipv4 cidr block give 192.168.1.0/24
* Right click on the subnet enable auto assign public ipv4
* In real time we don’t use this if we need public ip we can enable
* Now create another subnet
* Availability zone should be different from last subnet
* Ipv4 cidr series should change here 192.168.2.0/24
* Click on create
* Next go to internet gateway
* Create internet gateway right click, click attach vpc
* Next route tables
* When we create vpc by default route table will create
* Click on route table id
* Go to subnet
* In Subnet associations edit subnets
* Attach and save
* Next go to route
* Edit routes
* Add route ex: 0.0.0.0/0 if we give this ex it mean any network can access
* Internet gate
* Save

This is how we create vpc.

How do containers communicate in kubernetes?

**In Kubernetes, each Pod has an IP address. A Pod can communicate with another Pod by directly addressing its IP address, but the recommended way is to use Services. A Service is a set of Pods, which can be reached by a single, fixed DNS name or IP address.**

In reality, most applications on Kubernetes use Services as a way to communicate with each other. Using a Service is much more flexible than addressing another Pod directly, because Pods can be restarted frequently, which means that addressing them by name or IP is a very brittle approach.