VPC:
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1) Its a Private Network inside AWS.
2) We can Create any Number of VPC's.
3) VPC is at region Level.
4) VPC Size,Address format defined by using
"CIDR" (10.0.0.0/24) format.
5) VPC Can divided into multiple Smaller Groups,We call
it as Subnets.
6) If create VPC Below things will be created by default
i) Route Table
ii) NACL
iii) Security Groups
7) We can Create upto 200 Route Table inside VPC.
8) By Default we can connect to any instance within
a VPC by using Private IP.
9) If one VPC instance want to connect to Other
VPC Instance, we use public ip address.

Subnet:
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1) It a smaller group of network inside VPC.
2) Subnet size defined using CIDR format.
3) One Subnet always mapped with "Route Table"
and "NACL"
4) One Subnet Span within one AZ only.
5) Five ips of each subnet will be reserved by AWS,
That means we can't assign those ip's to any EC2
instance.
6) Fisrt four IPs and Last Ip Address of the
Subnet is reserved.

ex :
i) Subnet Cidr : 10.0.0.0/25
10.0.0.0
10.0.0.1
10.0.0.2
10.0.0.3
10.0.0.127
Above IPs we can't assign to EC2 instances.
ii) i) Subnet Cidr : 10.0.0.128/25
10.0.0.128
10.0.0.129
10.0.0.130
10.0.0.131
10.0.0.255
Above IPs we can't assign to EC2 instances.

Route Table:
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1) It determains Traffic to the Subnets.
2) The defult entry in the route table "VPC CIDR" block.
3) We can Map one Route Table to Multiple Subnets.

4) It is not possible to delete Default entry .

Practice:
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1) Create a VPC (192.168.0.0/24)
2) Create 2 Subnets inside VPC.
SN1: 192.168.0.0/25
SN2: 192.168.0.128/25
3) Make SN1 as Public Subnet.
4) Enable "Auto assign of Public IP" to SN1
5) Launch an EC2 instance by using "VPCPRACTICE" Ami, inside SN1.
6)Launch an EC2 instance by using "VPCPRACTICE" Ami, inside SN2.
7) Connect to SN2 subnet instance using SN1 subnet instance.

Nav:
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1) Create a VPC (192.168.0.0/24)
a) Goto VPC Dashboard
b) Click on "Your VPC"
c) Click On "Create VPC"
d) Give any name to the VPC
e) Give CIDR Block as "192.168.0.0/24"
f) Check the VPC Route Table,NACL& Security Group are Created or not
2) Create 2 Subnets inside VPC.
SN1: 192.168.0.0/25
SN2: 192.168.0.128/25

a) Goto VPC Dashboard
b) Click on "Subnets"
c) Click on "Create Subnet"
d) Give any name to the Subnet ex:SN1
e) Give CIDR Value as a 192.168.0.0/25
f) Select the Step1 VPC inside VPC Feild.
g) Create Sn2 in a same way.
3) Make SN1 as Public Subnet.
a) Create InternetGateway
i)Goto VPC Dashboard
ii) Click on "Internet Gateway"
iii) Click On "Create InternetGateway"
b) Attach InternetGateway to Step1 VPC
i)Goto VPC Dashboard
ii) Click on "Internet Gateway"
iii) Select the InternetGateway
iv) Click on "Action" --> "Attach to VPC"
c) Create New Route Table.
i)Goto VPC Dashboard
ii) Click on "Route Table"
iii) Click on "Create Route Table"

iv) Give any name to the Route table
v) Select Step1 VPC inside VPC Feild.

d) Add InternetGateway Entry inside newly created Route Table

i) goto the Route table Page
ii) Select the Route Table
iii) Click on "Route" Tab
iv) Click on "Edit Route"
v) Add "0.0.0.0/0" Source and "InternetGateway id "target" Field.
vi) Click On Save.

e) Attach step d route table to Subnet SN1.

i) Goto Subnet Page
ii) Select the Sn1 Subnet
iii) Click on "Route Table" Tab
iv) Click on "Edit Route Table"
v) select step(d) route table
vi) Click on save

4) Enable "Auto assign of Public IP" to SN1

i) Goto Subnets Page
ii) Select the Subnet
iii) Click "Actions"-->"Auto Assigne of PublicIP"
iv) Enable the check box

SN1 - I1
Sn1 - I2
==========
Sn2 - I3

1) Connect to I3 (Sn2) instance from I1(Sn1)
2) Connect to I2(Sn1) from I3(Sn2) using public IP