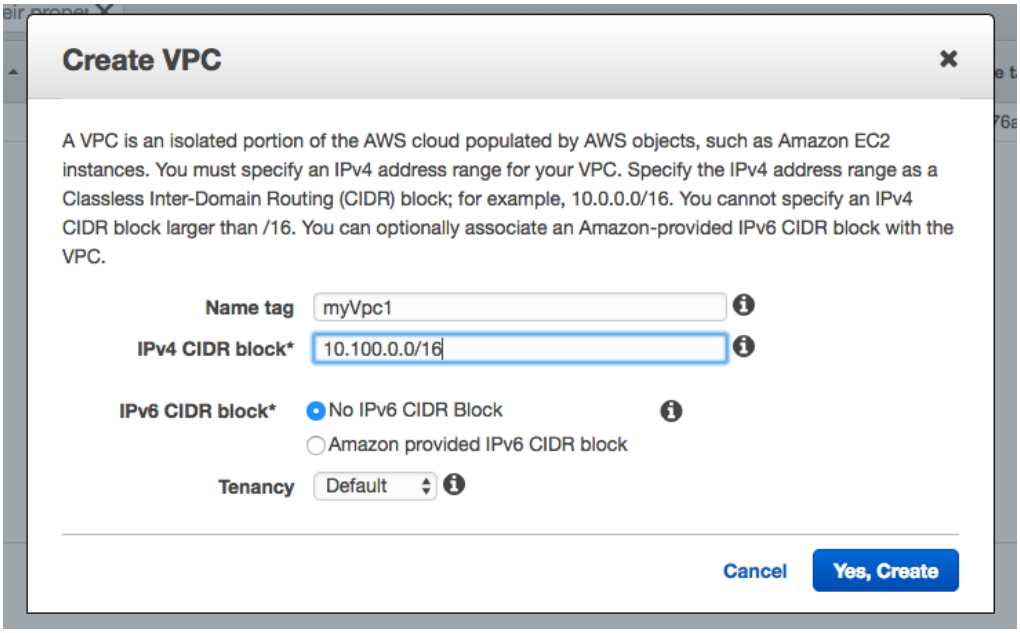
HOW TO CREATE VPC

- VPC may no longer than /16
- Considering that default EC2 resource limit for a new account in 20 instances
- AWS reserve the first 4 and last IPV4 address for their internal use
- Subnet address start with the VPC address and as small as 128

STEP:-1

- Login to your AWS account and select vpc

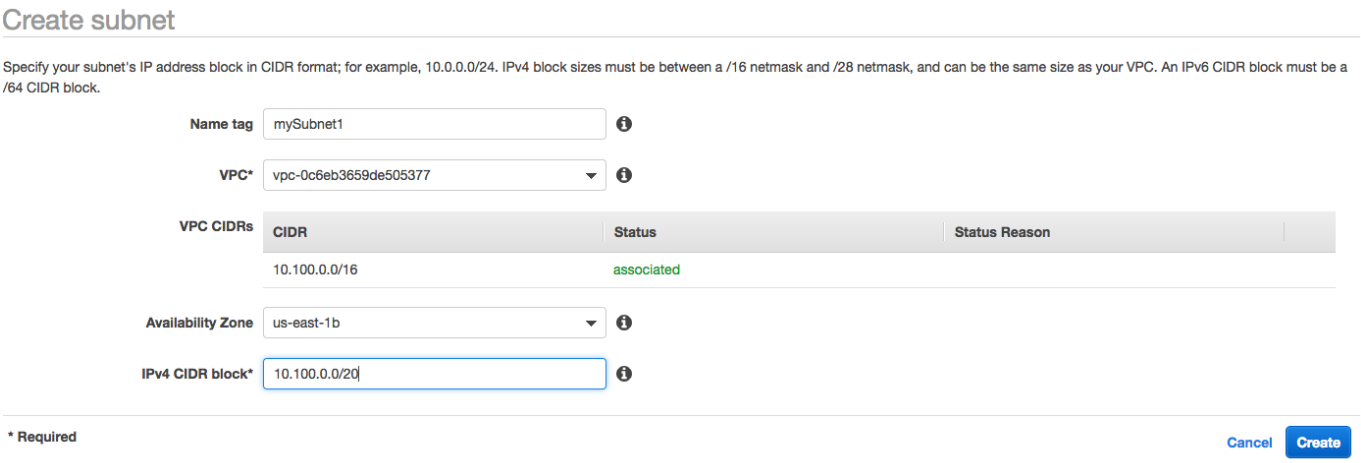
Create VPC which will use the 10.100.0.0/16 CIDR block



STEP:-2

Create Subnet will have an assigned CIDR block of 10.100.10.10/20

means it will use 4096 total address within the inclusion range of 10.100.0.0 to 10.100.15.255



@ Because of /20 block uses half of the third octet(half of the eight bits) as part of network prefix

@You can compute the subnet address range by ci=onverting the “all-ones” binary value of the unused four bits 1111-----→ 15.

@Final octe will be used for host identification, simple convert the “all-ones” binary value of this bit 11111111--→255

@Finally take the first 2 decimal octets 10.100 and append the 2 decimal numbers that we’ve converted from binary

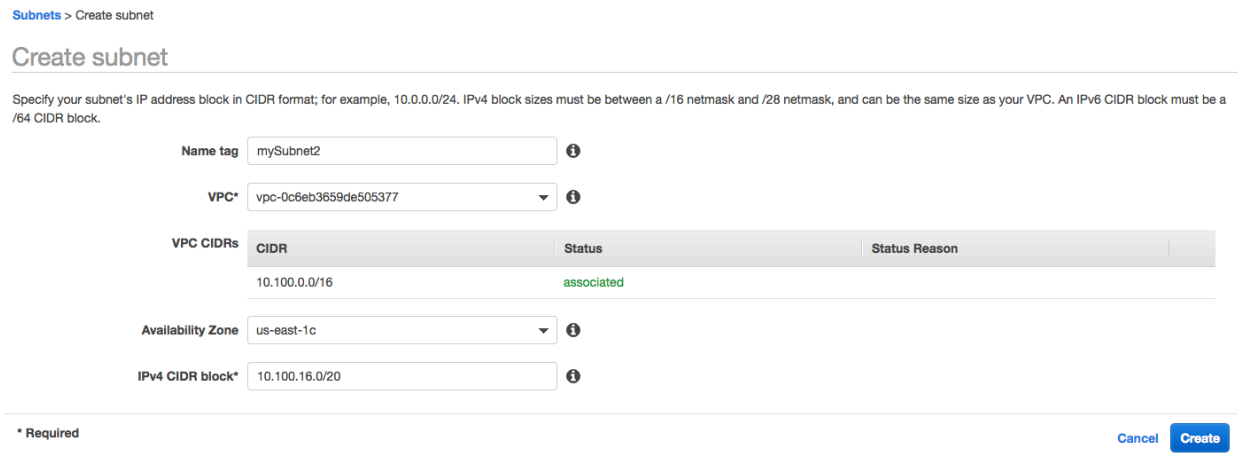
The final address within the subnet is 10.100.15.255

SUBNET:-2

Since we will be creating another subnet , it stands to reason that the next starting address might be 10.100.16.0

In practice , you could choose any Unused block but that one would makes sence.

The second subnet will also be a /20 block but it will reside in different availability zone



At this point both VPC subnet should be visible in the AWS console

Main route table insure that both instance will be able to communicate with each other using their private address

STEP:-3

Create Internet Gateway; which allows EC2 instance within a VPC to communicate with the public internet ; without this we will not be able to use SSH

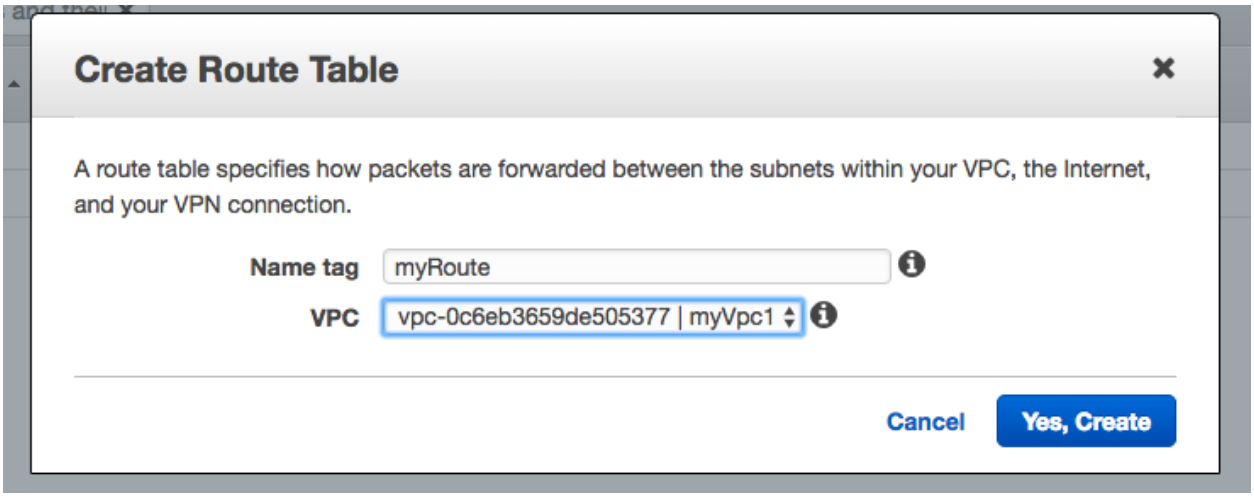
Create Internet Gateway and Attach your created VPC

STEP:-4

Create Route Table

Rout-----→Edit

Add another route



rtb-076a3c3d20e878a58

Summary | **Routes** | Subnet Associations | Route Propagation | Tags

Cancel **Save**

View: All rules

Destination	Target	Status	Propagated	Remove
10.100.0.0/16	local	Active	No	
0.0.0.0/0	igw-08ec2a199f6b2101	Active	No	⊗
			No	⊗

Add another route