**Flow**

To create VPC follow the steps:

1. Create Internet gateway
2. Create VPC with CIDR
3. Attach internet gateway with VPC
4. Create subnets (public and private) in availability zones
   1. Example: create 2 public and 2 private subnets. 1 public and 1 private subnets should create in one availability zone and other public and private subnets create on other availability zone
5. Create route table public and here you have already created route table for private subnets
6. Associate public subnets with public route tables
7. Public route table associate (Route) with internet ways (0.0.0.0/0)

**To download AWS CLI, use this link**

https://s3.amazonaws.com/aws-cli/AWSCLI64.msi

http://docs.aws.amazon.com/cli/latest/userguide/cli-chap-getting-started.html

aws configure

Create VPC

http://docs.aws.amazon.com/cli/latest/reference/ec2/create-vpc.html

http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/vpc-subnets-commands-example.html

VPC Subnets

http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/vpc-subnets-commands-example.html

AWS Regions

http://docs.aws.amazon.com/general/latest/gr/rande.html

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1) Find available VPC

aws ec2 describe-vpcs --output json

2) Internert-Gatweway create

Create: aws ec2 create-internet-gateway --output json

Verify: aws ec2 describe-internet-gateways --output json

Comment: below you just need to update resources internet gateway id

Tag: aws ec2 create-tags --resources igw-998d17e0 --tags Key=Name,Value=My-Gateway

3) Create VPC with CIDR

Create: aws ec2 create-vpc --cidr 172.16.0.0/16 --output json

Verify: aws ec2 describe-vpcs --output json

Tag: aws ec2 create-tags --resources vpc-ba6ff6c2 --tags Key=Name,Value=VPC-Cli

4) Create Subnet: http://docs.aws.amazon.com/cli/latest/reference/ec2/create-subnet.html

Create: aws ec2 create-subnet --availability-zone us-east-1a --cidr-block 172.16.1.0/24 --vpc-id vpc-ba6ff6c2 --output json (output will be available)

Tags: aws ec2 create-tags --resources subnet-f952319d --tags Key=Name,Value=Private-subnet

5) Create 2nd subnet for public

Create: aws ec2 create-subnet --availability-zone us-east-1a --cidr-block 172.16.2.0/24 --vpc-id vpc-ba6ff6c2 --output json

tags: aws ec2 create-tags --resources subnet-a55132c1 --tags Key=Name,Value=Public-subnet

6) Attached internet gateway to VPC

Attached command:aws ec2 attach-internet-gateway --vpc-id vpc-ba6ff6c2 --internet-gateway-id igw-998d17e0

verify: aws ec2 describe-internet-gateways --output json

7) Create Route Table (1 table already created)

Create: aws ec2 create-route-table --vpc-id vpc-ba6ff6c2 --output json

Verify: aws ec2 describe-route-tables --output json

tag:  aws ec2 create-tags --resource rtb-807e78fa --tags Key=Name,Value=Public-Route-Table

8) Associate subnets with route tables

Verify subnets with VPC: aws ec2 describe-subnets --filters "Name=vpc-id,Values=vpc-ba6ff6c2" --output json

Association: aws ec2 associate-route-table --subnet-id subnet-f952319d --route-table-id rtb-807e78fa --output json

Association: aws ec2 associate-route-table --subnet-id subnet-a55132c1 --route-table-id rtb-bf686ec5 --output json

9) Create IGW route on public route table

Create: aws ec2 create-route --route-table-id rtb-807e78fa --destination-cidr-block 0.0.0.0/0 --gateway-id igw-998d17e0

**Delete VPC:**

* You need to complete vpc delete from console because if you tried to delete from CLI you have to delete dependencies (subnets, route tables, IGW) etc

Step1: Delete public and private subnets

* Aws ec2 delete-subnet –subnet-id subnet-0e015bdd6c5e089cb
* Aws ec2 delete-subnet – subnet-id subnet-0e015bdd6c5e089cb

Step2: Detach internet gateway from VPC

* aws ec2 detach-internet-gateway --vpc-id vpc-09bd22d7b4e0ec769 --internet-gateway-id igw-069df311b76965567

Step3: Delete internet gateway

* aws ec2 delete-internet-gateway --internet-gateway-id igw-069df311b76965567

Step4: Delete route table (Public)

* aws ec2 delete-route-table --route-table-id rtb-037d6a6b065fba021

Step5: Now delete VPC

* aws ec2 delete-vpc --vpc-id vpc-09bd22d7b4e0ec769