**3-tier Airchitecture implementation**

1. create one vpc of name my-3tier-project.

Cidr of 172.25.0.0/20

1. create 6 subnet such as 2 for public,2 for private and 2 for database.

my-public-subnet-1 🡪172.25.1.0/24

my-public-subnet-2 🡪172.25.2.0/24

my-private-subnet-3 🡪172.25.3.0/24

my- private -subnet-4 🡪172.25.4.0/24

my-db-subnet-1 🡪172.25.5.0/24

my-db-subnet-1 🡪172.25.6.0/24

in public subnet edit subnet setting and save the changes.

1. create 3 route table such as

my-public-RT-1 ## for public subnet

my-private-RT-2 ## for private subnet

my-db-RT-3 ## for db subnet.

1. create internet gateway and attach to the vpc of name my-3tier-project

and associate to the public subnet in route table.

1. create NAT-gateway in public subnet and then associate to the private subnet and db subnet in route table.
2. Create one instance of configuration select created vpc and subnet my-public-subnet-1 , create security group give specific name and allow port 22, 8080 and port 80 and then launch the instance .

Also in user data run the script of tomcat:-

**#! /bin/bash**

**yum install java-openjdk -y**

**curl -O https://s3-us-west-2.amazonaws.com/studentapi-cit/mysql-connector.jar**

**curl -O https://s3-us-west-2.amazonaws.com/studentapi-cit/student.war**

**curl -O https://dlcdn.apache.org/tomcat/tomcat-8/v8.5.77/bin/apache-tomcat-8.5.77.tar.gz**

**tar -zxf apache-tomcat-8.5.77.tar.gz**

**mv apache-tomcat-8.5.77 /opt**

**mv mysql-connector.jar /opt/apache-tomcat-8.5.77/lib**

**mv student.war /opt/apache-tomcat-8.5.77/webapps**

**cd /opt/apache-tomcat-8.5.77/bin**

**./catalina.sh start**

**./catalina.sh stop**

**./catalina.sh start**

1. Launch the template from instance
2. Create target group of 8080 port and with same security group will use in the created instance.
3. Now, we have to create application load balancer of 80 port and select public subnet and same security group and launch the instance.
4. Now, let’s create the Autoscaling group by using template we created just give name of autoscaling group , select the loadbalancer and launch the ASG.
5. Now hit the DNS of load balancer to the browser then website wiil show.