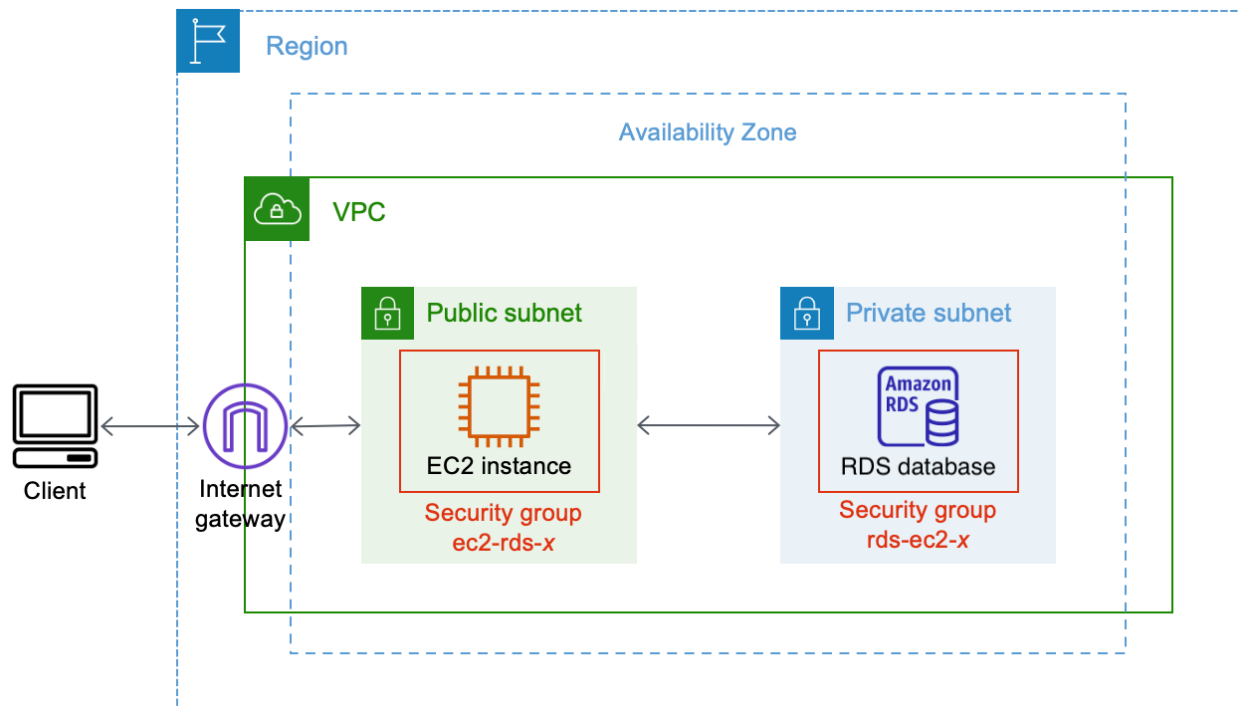**Program-6**

Deploy PHP Code on EC2 instance that retrieve data from RDS Server

Note: create EC2 instance and RDS database in the araciality zone. If your EC2 instance and your RDS database are in different Availability Zones, you will incur data transfer fees.

Creating Database In RDS

Login→ Search RDS →RDS → On left side menu→ Databases → Create Database → Choose Standard Create → In engine Option select MySQL database → Edition → MySQL community →8.0.32 → templates → Free tier → Specify DB instance name→ Specify master User name → password → Storage and Connectivity (leave default) → Public access (Yes) → availability zone (No preference) → Additional Configuration → Specify Initial database name→Create Database

Once Database is created click on the database→ Connectivity & Security→copy Endpoint

Launch an EC2 Instance

Create VPC→ Create IGW → Create Subnet → Route table and assign RT to Public VPC → Edit RT and assign 0.0.0.0/0 to access internet & assign created IGW and Save changes → In RT Subnet association → Save Association → Create EC2 instance (after selecting AMI, instance type and key pair) → Edit Network

settings and specify the resources you have created and choose Public IP →Enable Auto-assign public IP → Security Group (Type SSH and Source type Anywhare) → Launch Instance → Click on instance ID (to SSH into EC2 instance from internet) → (**To enable Webservice)** EC2→Instance Id→ Security Group→Edit Inbound rules → Add rules → (add http, https, MySQL and Any where IPv4)→ Save rule → copy public IP → Go to terminal on Desktop→ Change permission chmod –R 400 keypair Name → paste IP address on terminal and connect to AWS ubuntu instance

In the EC2 terminal install the following

EC2 terminal $ sudo apt-get update -y

$ sudo apt-get install apache2

$ sudo systemctl restart apache2

$ sudo apt-get install mysql-client

$ mysql –version

$ mysql -h <paste RDS endpoint> -u <your username> -p

Password:

mysql> SHOW DATABASES; and other commands

mysql> exit

$ cd /var/www/html/   (Create index.html file and PhP code to crate and access databases)

Goto AWS consol → EC2 → copy public IP

Goto browser → http://EC2 IP

<p align="center">OR</p>

RDS → Databases → Select the Database created→Actions→Set up EC2 connection → follow the same procedure as above to launch EC2 instance

In the terminal of EC2 instance

cd /var/www/html
Create a file db.inc.php
/var/www/html # vi db.inc.php
Reference video: https://www.youtube.com/watch?v=dKo4nS4uSY0