Database

* RDS(Relational Database) DB service offer by Amazon. There default DBs such as PostgreSQL, Oracle, MariaDB,MySQL, MicrosoftSQL Server etc.
* Point in time recovery is to restore DB to previous state to recover data if DB goes down or someone deletes important data in db accidently. You can schedule backup times to take backup of DB so data can be available when restoring DB
* RDS has built in monitoring tools and dashboards
* You can use 3rd party software to connect to db for example MySQL Workbench. Enter endpoint from PDS dashboard, port name, username and password created when creating DB instance

Create EC2 instance in public subnet and connect to MySQL DB in private subnet lab

* Create VPC using 10.0.0.0/16 IPv6 CIDR block
* Create internet gateway and attach to VPC created
* Create public subnet using 10.0.1.0/24 IPv4 CIDR block
  + Enable auto-assign public IPv4 address must be checked in subnet settings to be public
* Create private subnet using 10.0.2.0/24 IPv4 CIDR block
  + Availability zone must be different
  + Private by default
* Add route to Internet gateway
  + Add route to accept all traffic 0.0.0.0/0 through internet gateway
  + Associate public subnet to route table using “Subnet Association” tabs
* Create route table
  + Add route to accept all traffic 0.0.0.0/0 from internet gateway
  + Add route to accept all traffic 0.0.0.0/0 through internet gateway
  + Associate public subnet
  + Make route table as main
* Create EC2 instance
  + Create using vpc, and public subnet
  + Auto-assign public IP enabled
  + Create security group with ssh rule
  + Add http rule if wanting to host web apps
* Create RDS Instance
  + Create MySQL instance in private subnet
  + Select “no” for public access
  + Select “create new subnet group”
  + Select “create new New DB SG” to create new security
    - MAKE SURE MySQL Inbound rule is accepting all traffic 0.0.0.0/0
* SSH login into EC2 Instance
  + sudo ru
  + yum install mysql – to install mysql in instance
  + mysql -h <<INSERT DB ENDPOINT HERE>> -P 3306 -u <<DB user name>> -p **get db endpoint from RDS instance dashboard**
  + Login with password created when creating RDS instance