**Project 1 – CRM: Commands**

**export MYSQLSH\_PROMPT\_THEME='MySQL > '**

**mysqlsh**

**Connect to Aurora MySQL –**

**\connect admin@<aurora-endpoint>:3306**

**Create CRM database and tables:**

**create database crmdb;**

**use crmdb;**

**create table customers (**

**customer\_id bigint,**

**first\_name varchar(60),**

**last\_name varchar(60),**

**email varchar(60),**

**phone\_number varchar(20),**

**address varchar(60)**

**);**

**Create index customer\_id\_ix on customers(customer\_id);**

**Create table accounts (**

**account\_id int,**

**customer\_id bigint,**

**balance decimal(20,2),**

**currency\_code varchar(10),**

**acc\_opening\_date timestamp**

**);**

**Create index account\_id\_ix on accounts(account\_id);**

**Create index account\_cust\_id\_ix on accounts(customer\_id);**

**Create table loans(**

**loan\_id bigint,**

**customer\_id bigint,**

**loan\_type varchar(40),**

**principal\_amount decimal(14,2),**

**interest\_rate decimal(5,2),**

**term\_month smallint,**

**start\_date timestamp,**

**end\_date timestamp**

**);**

**Create index loan\_id\_ix on loans(loan\_id);**

**Create index loan\_cust\_id\_ix on loans(customer\_id);**

**Load all tables in Aurora using LOAD command from S3 file**

**load data s3 file 's3://<bucket>/crm\_customer\_data.csv' into table customers fields terminated by ',' ignore 1 lines;**

**load data s3 file 's3://<bucket>/crm\_account\_data.csv' into table accounts fields terminated by ',' ignore 1 lines;**

**load data s3 file 's3://<bucket>/crm\_loan\_data.csv' into table loans fields terminated by ',' ignore 1 lines;**

**Run Flask app using FLASK\_APP variable**

**export FLASK\_APP='FlaskApp1.py'**

**flask run --port=8000**

**nohup flask run --port=8000 &**

**Run multiple apps in the same machine**

**export FLASK\_APP='FlaskApp1.py'**

**flask run --port=8001**

**export FLASK\_APP='FlaskApp2.py'**

**flask run --port=8002**

**export FLASK\_APP='FlaskApp1.py'**

**nohup flask run --port=8001 &**

**export FLASK\_APP='FlaskApp2.py'**

**nohup flask run --port=8002 &**

**Install Gunicorn**

**pip3 install gunicorn**

**Run Flask application using Gunicorn app server**

**gunicorn -w 4 -b 0.0.0.0:9001 'FlaskApp1:app1'**

**gunicorn -w 4 -b 0.0.0.0:9002 'FlaskApp2:app2'**

**nohup gunicorn -w 4 -b 0.0.0.0:9001 'FlaskApp1:app1' &**

**nohup gunicorn -w 4 -b 0.0.0.0:9002 'FlaskApp2:app2' &**

**Run Flask application using Gunicorn on EC2 instances**

**chmod 400 3aayaam-python-flask-key-pair.pem**

**ssh -i 3aayaam-python-flask-key-pair.pem <user>@<ip-addr>**

**python3 --version**

**pip3 install flask**

**pip3 install gunicorn**

**chmod 777 FlaskApp1.py**

**gunicorn -w 4 -b 0.0.0.0:9001 'FlaskApp1:app1'**

**gunicorn -w 4 -b 0.0.0.0:9002 'FlaskApp2:app2'**