DBMS EXERCISE - 3

1. Queries used to create Database:

```
CREATE DATABASE exercise3
CREATE TABLE Production_company
(
pid INT NOT NULL UNIQUE AUTO_INCREMENT,
name VARCHAR(25) NOT NULL,
owner VARCHAR(25) NOT NULL,
hq VARCHAR(25) NOT NULL,
PRIMARY KEY(pid)
);

CREATE TABLE theatre
(
th_id INT NOT NULL UNIQUE AUTO_INCREMENT,
name VARCHAR(20) NOT NULL,
loc VARCHAR(20) NOT NULL,
PRIMARY KEY(th_id)
);

CREATE TABLE movie
(
mid INT NOT NULL UNIQUE AUTO_INCREMENT,
```

```
mname VARCHAR(60) NOT NULL,
pid INT NOT NULL,
th_id INT NOT NULL,
PRIMARY KEY(mid),
FOREIGN KEY (pid) REFERENCES
Production_company(pid),
FOREIGN KEY (th_id) REFERENCES theatre(th_id)
);


CREATE TABLE Movie_genre
(
mid INT NOT NULL,
genre VARCHAR(25) NOT NULL,
PRIMARY KEY(mid,genre),
FOREIGN KEY (mid) REFERENCES movie(mid)
);

CREATE TABLE director
(
did INT NOT NULL UNIQUE AUTO_INCREMENT,
name VARCHAR(50) NOT NULL
);
```

```
CREATE TABLE actor
(
aid INT NOT NULL UNIQUE AUTO_INCREMENT,
name VARCHAR(20) NOT NULL,
PRIMARY KEY(aid)
);
CREATE TABLE direction
(
did INT NOT NULL,
dyear YEAR,
mid INT NOT NULL,
PRIMARY KEY(did,mid),
FOREIGN KEY (did) REFERENCES director(did),
FOREIGN KEY (mid) REFERENCES movie(mid)
);


CREATE TABLE acting
(aid INT NOT NULL,
role VARCHAR(20),
mid INT NOT NULL,
PRIMARY KEY(aid,mid),
```

```
FOREIGN KEY (aid) REFERENCES actor(aid),
FOREIGN KEY (mid) REFERENCES movie(mid)
);
```

```
CREATE TABLE d_ph_no
(
did INT NOT NULL,
ph_no BIGINT NOT NULL UNIQUE,
PRIMARY KEY(ph_no),
FOREIGN KEY (did) REFERENCES director(did)
);
```

```
CREATE TABLE a_ph_no
(
aid INT NOT NULL,
ph_no BIGINT NOT NULL UNIQUE,
PRIMARY KEY(ph_no),
FOREIGN KEY (aid) REFERENCES actor(aid)
```

```
);



CREATE TABLE Seats
(
s_no INT NOT NULL,
s_type VARCHAR(20) NOT NULL,
availability VARCHAR(20) NOT NULL,
th_id INT NOT NULL,
PRIMARY KEY(s_no,th_id),
FOREIGN KEY (th_id) REFERENCES theatre(th_id)
);


CREATE TABLE customer
(
cid INT NOT NULL UNIQUE AUTO_INCREMENT,
name VARCHAR(25) NOT NULL,
email VARCHAR(25) ,
PRIMARY KEY(cid)
);
```

```
CREATE TABLE Customer_phone_no
(
cid INT NOT NULL,
ph_no BIGINT NOT NULL UNIQUE,
PRIMARY KEY(ph_no),
FOREIGN KEY (cid) REFERENCES customer(cid)
);


CREATE TABLE Tickets
(
tid INT NOT NULL UNIQUE AUTO_INCREMENT,
t_date DATE NOT NULL,
t_time TIME NOT NULL,
th_id INT NOT NULL,
cid INT NOT NULL,
mid INT NOT NULL,
PRIMARY KEY(tid),
FOREIGN KEY (mid) REFERENCES movie(mid),
FOREIGN KEY (cid) REFERENCES customer(cid),
FOREIGN KEY (th_id) REFERENCES theatre(th_id)
);
```

```
CREATE TABLE Payment
(
refid INT NOT NULL UNIQUE AUTO_INCREMENT,
cid INT NOT NULL,
paymenttype VARCHAR(10) NOT NULL,
paymentstatus VARCHAR(10) NOT NULL,
pydate DATE NOT NULL,
amount INT NOT NULL,
PRIMARY KEY(refid),
FOREIGN KEY (cid) REFERENCES customer(cid)
);
```

2. Queries used to enter Tuples in the DB

```
INSERT INTO `Production_company`(`name`,
`hq`,`owner`)
VALUES
('PHouse1','Loc1','Owner1'),
('PHouse2','Loc2','Owner2'),
('PHouse3','Loc3','Owner3'),
('PHouse4','Loc4','Owner4'),
('PHouse5','Loc5','Owner5');
```

```
INSERT INTO `theatre`(`name`, `loc`)
VALUES
('Name1','Location1'),
('Name2','Location2'),
('Name3','Location3'),
('Name4','Location4'),
('Name5','Location5');


INSERT INTO `movie`(`mname`, `pid`,
`th_id`)
VALUES ('Movie1','1','5'),
      ('Movie2','2','4'),
      ('Movie3','3','3'),
      ('Movie4','4','2'),
      ('Movie5','5','1');

INSERT INTO `director`(`name`)
VALUES
('Director 1'),
('Director 2'),
('Director 3'),
('Director 4'),
```

('Director 5');

INSERT INTO `actor`(`name`)
VALUES
('Tom Cruise'),
('Brad Pitt'),
('Vicky K'),
('Zendaya'),
('Dwayne Johnson');

INSERT INTO `a_ph_no`(`aid`, `ph_no`)
VALUES
('1','1234567892'),
('2','1234567893'),
('3','1234567894'),
('4','1234567895'),
('5','1234567896');

INSERT INTO `acting`(`aid`, `role`, `mid`)
VALUES
(1,'Mother','1'),
(2,'Father','2'),

```
(3,'Brother','3'),
(4,'Sister','4'),
(5,'Police','5');
INSERT INTO `customer`(`name`, `email`)
VALUES
('Juby1','juby1@yahoo.com'),
('Juby2','juby2@yahoo.com'),
('Juby3','juby3@yahoo.com'),
('Juby4','juby4@yahoo.com'),
('Juby5','juby5@yahoo.com');

INSERT INTO `Customer_phone_no`(`cid`, `ph_no`)
VALUES
('1','123346789'),
('2','123414789'),
('3','123432789'),
('4','123456739'),
('5','123456789');

INSERT INTO `direction`(`did`, `dyear`, `mid`)
VALUES
('1','2019','1'),
('2','1995','2'),
```

('3','2017','3'),
('4','2022','4'),
('5','2017','5');

INSERT INTO `d_ph_no`(`did`, `ph_no`)
VALUES
('1','9944334422'),
('2','9942234422'),
('3','9945634422'),
('4','9945434422'),
('5','9944343422');

INSERT INTO `Movie_genre`(`mid`, `genre`)
VALUES
('1','Genre1'),
('2','Genre2'),
('3','Genre3'),
('4','Genre4'),
('5','Genre5');

INSERT INTO `Payment`(`cid`, `paymenttype`,
`paymentstatus`, `pydate`, `amount`)

```
VALUES
('1','Coupon','Completed','2001-01-02','235620'),
('2','Cash','Completed','1987-03-02','97330'),
('3','Card','Completed','2005-03-02','812210'),
('4','Card','Processing','2009-03-02','2310734'),
('5','Bank Transfer','Completed','2007-03-02','24570');

INSERT INTO `Seats`(`s_no`, `s_type`, `availability`,
`th_id`)
VALUES
('1','Premium','a','1'),
('2','Extra Large','b','2'),
('3','Front row','a','3'),
('4','Comfortable','a','4'),
('5','Premium','b','5');

INSERT INTO `Tickets`(`t_date`, `t_time`, `th_id`,
`cid`, `mid`) VALUES
('2001-09-01','09:00:00','1','1','1'),
('2002-03-01','23:00:00','2','2','2'),
('2004-04-01','19:00:00','3','3','3'),
('2009-05-01','21:30:00','4','4','4'),
('2008-06-06','15:00:00','5','5','5');
```

3. Drop DB:

Drop exercise3

4. Delete :

DELETE FROM Customer WHERE name='Name1';

5. Alter DB

ALTER TABLE CUSTOMER

ADD Nationality varchar(25)

6. Aggregate Clause

Display the max, min and avg amounts payed by the customers for tickets.

SELECT AVG(amount) as AVERAGE, MAX(amount) AS MAXIMUM ,MIN(amount) AS MINIMUM FROM `Payment`;

7. View Clause

Display a view of customer name and their mode of payment, by using both payments table and customer table.

CREATE VIEW PAY_PEOPLE AS SELECT paymentype, name FROM payments as M, customers as D WHERE M.cid=D.cid;

8. **Group by and having clause**

Display the seat type that is more than 20 in number

SELECT ALL s_type FROM `Seats` GROUP BY s_type HAVING COUNT(*)>20;

9. Update DB:

Update Customers

SET name=’Juby’, email=’juby@gmail.com’ WHERE cid=1;

10. Like Clause

Select all customers whose name starts with z

SELECT * FROM Customers WHERE name LIKE ‘z%’;