

FAIZAN CHOUDHARY

20BCS021

DBMS LAB Practical

10th June 2022

Q1. Consider the following database consisting of the following tables:

Employee (employee name, street, city)

Works (employee name, company name, salary, doj)

Company (company name, city)

Manager (employee name, manager name)

1. Create the above mentioned tables. Identify the primary keys and foreign keys suitably and implement them also. Read all questions and populate values accordingly (Atleast 5 rows).
2. Find all employees in database who live in the city 'Chennai' and works under the manager 'John'.
3. Find all employees who earn more than the average salary of all employees of that company.
4. Find the no. of employees in each company.
5. Write a PL/SQL procedure to find employee name whose company name as "BIG BANK Corporation".

Creation:

- ```
mysql> USE 20bcs021_faizan;
```
- ```
mysql> CREATE TABLE employee5
-> (
-> emp_name VARCHAR(20) NOT NULL UNIQUE,
-> street    VARCHAR(20),
-> city      VARCHAR(20),
-> PRIMARY KEY (emp_name)
-> );
```
- ```
mysql> INSERT INTO employee5 VALUES
-> ('Rahul Rai', 'Dalal Street', 'Mumbai'),
-> ('Uttam Kumar', 'Ghaziabad Street', 'Ghaziabad'),
-> ('Purushottam', 'Baidu Street', 'Chennai'),
-> ('Farhan Qazi', 'Mysore Street', 'Chennai'),
-> ('Utkarsh Mishra', 'Batla Street', 'Delhi');
```
- ```
mysql> SELECT * FROM employee5;
```

emp_name	street	city
Farhan Qazi	Mysore Street	Chennai
Purushottam	Baidu Street	Chennai
Rahul Rai	Dalal Street	Mumbai
Utkarsh Mishra	Batla Street	Delhi
Uttam Kumar	Ghaziabad Street	Ghaziabad

- mysql> CREATE TABLE works
 - > (
 - > emp_name VARCHAR(20),
 - > comp_name VARCHAR(20) NOT NULL,
 - > sal DECIMAL(7,2),
 - > doj DATE,
 - > PRIMARY KEY (comp_name),
 - > FOREIGN KEY (emp_name) REFERENCES employee5(emp_name)
 - >);
- mysql> INSERT INTO works VALUES
 - > ('Farhan Qazi', 'ABC Enterprises', 45000, '2013-12-01'),
 - > ('Purushottam', 'Wolfa Tech', 50000, '2016-04-01'),
 - > ('Rahul Rai', 'Western Mail', 53000, '2010-07-08'),
 - > ('Utkarsh Mishra', 'Arun LTD', 38000, '2017-08-05'),
 - > ('Uttam Kumar', 'One Click Services', 43000, '2017-06-22');
- mysql> SELECT * FROM works;

emp_name	comp_name	sal	doj
Farhan Qazi	ABC Enterprises	45000.00	2013-12-01
Utkarsh Mishra	Arun LTD	38000.00	2017-08-05
Uttam Kumar	One Click Services	43000.00	2017-06-22
Rahul Rai	Western Mail	53000.00	2010-07-08
Purushottam	Wolfa Tech	50000.00	2016-04-01

- mysql> CREATE TABLE company
 - > (
 - > comp_name VARCHAR(20),
 - > city VARCHAR(15),
 - > FOREIGN KEY (comp_name) REFERENCES works(comp_name)
 - >);
- mysql> INSERT INTO company VALUES
 - > ('ABC Enterprises', 'Chennai'),
 - > ('Arun LTD', 'Delhi'),
 - > ('One Click Services', 'Ghaziabad'),
 - > ('Western Mail', 'Mumbai'),
 - > ('Wolfa Tech', 'Chennai');
- mysql> SELECT * FROM company;

comp_name	city
ABC Enterprises	Chennai
Arun LTD	Delhi
One Click Services	Ghaziabad
Western Mail	Mumbai
Wolfa Tech	Chennai

- mysql> CREATE TABLE manager
-> (
-> emp_name VARCHAR(20),
-> manager_name VARCHAR(20),
-> FOREIGN KEY (emp_name) REFERENCES employee5(emp_name)
->);
- mysql> INSERT INTO manager VALUES
-> ('Farhan Qazi', 'Harish Reddy'),
-> ('Utkarsh Mishra', 'Lal Kumar'),
-> ('Uttam Kumar', 'Suresh Bhangar'),
-> ('Rahul Rai', 'Sally'),
-> ('Purushottam', 'John');
- mysql> SELECT * FROM manager;

emp_name	manager_name
Farhan Qazi	Harish Reddy
Utkarsh Mishra	Lal Kumar
Uttam Kumar	Suresh Bhangar
Rahul Rai	Sally
Purushottam	John

Queries:

Find all employees in database who live in the city 'Chennai' and works under the manager 'John'.

```
mysql> SELECT e.emp_name
-> FROM employee5 e INNER JOIN manager m ON e.emp_name = m.emp_name
-> WHERE city = 'Chennai' AND manager_name = 'John';
```

```
mysql> SELECT e.emp_name
-> FROM employee5 e INNER JOIN manager m ON e.emp_name = m.emp_name
-> WHERE city = 'Chennai' AND manager_name = 'John';
```

emp_name
Purushottam

Find all employees who earn more than the average salary of all employees of that company.

```
mysql> SELECT emp_name, sal
-> FROM works
-> WHERE sal > (SELECT AVG(sal) FROM works);
```

```
mysql> SELECT emp_name, sal
-> FROM works
-> WHERE sal > (SELECT AVG(sal) FROM works);
```

emp_name	sal
Rahul Rai	53000.00
Purushottam	50000.00

Find the no. of employees in each company.

```
mysql> SELECT COUNT(*) AS no_of_emp, comp_name
-> FROM works
-> GROUP BY comp_name;
```

```
mysql> SELECT COUNT(*) AS no_of_emp, comp_name
-> FROM works
-> GROUP BY comp_name;
```

no_of_emp	comp_name
1	ABC Enterprises
1	Arun LTD
1	One Click Services
1	Western Mail
1	Wolfa Tech

Write a PL/SQL procedure to find employee name whose company name as “BIG BANK Corporation”.

```
mysql> INSERT INTO employee5 VALUES
-> ('Ravi Sharma', 'Urooj Street', 'Hyderabad');

mysql> INSERT INTO works VALUES
-> ('Ravi Sharma', 'Big Bank Corp.', 49000, '2018-03-04');

mysql> INSERT INTO company VALUES
-> ('Big Bank Corp.', 'Hyderabad');

mysql> INSERT INTO manager VALUES
-> ('Ravi Sharma', 'Sahoo Reddy');
```

```
mysql> DELIMITER ]

mysql> CREATE PROCEDURE search_emp (IN comp_name VARCHAR(20), OUT
emp_name VARCHAR(20))
    -> BEGIN
    -> SELECT emp_name FROM works WHERE comp_name = 'Big Bank Corp.'
    INTO emp_name;
    -> END]
```