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DBMSL

Assignment 2A

1. Create Student Table:

Query:

```
CREATE TABLE Student (s_id INT AUTO_INCREMENT PRIMARY KEY, drive_id INT NOT NULL, T_id INT, s_name VARCHAR(50) NOT NULL, cgpa FLOAT, s_branch VARCHAR(50) NOT NULL, s_dob DATE NOT NULL, FOREIGN KEY (T_id) REFERENCES Training(T_id));
```

Output:

```
mysql> CREATE TABLE Student (s_id INT AUTO_INCREMENT PRIMARY KEY, drive_id INT NOT NULL, T_id INT, s_name VARCHAR(50) NOT NULL, cgpa FLOAT, s_branch VARCHAR(50) NOT NULL, s_dob DATE NOT NULL, FOREIGN KEY (T_id) REFERENCES Training(T_id));
Query OK, 0 rows affected (0.06 sec)
```

2. Create PlacementDrive Table:

Query:

```
create table PlacementDrive(Drive_id int primary key, Pcompany_name varchar(50) not null, package bigint not null, location varchar(50) not null);
```

Output:

```
mysql> create table PlacementDrive(Drive_id int primary key, Pcompany_name varchar(50) not null, package bigint not null, location varchar(50) not null);
Query OK, 0 rows affected (0.03 sec)
```

3. Create Training Table:

Query:

```
create table Training(T_id int primary key, Tcompany_name varchar(50) not null, T_fee bigint not null, T_year int not null);
```

Output:

```
mysql> create table Training(T_id int primary key, Tcompany_name varchar(50) not null, T_fee bigint not null, T_year int not null);
Query OK, 0 rows affected (0.07 sec)
```

4. Create Student view:

Query:

```
create view Student_View as select s_id, drive_id, T_id, s_name, cgpa, s_branch, s_dob from Student;
```

Output:

```
mysql> create view Student_View as select s_id, drive_id, T_id, s_name, cgpa, s_branch, s_dob from Student;
Query OK, 0 rows affected (0.03 sec)
l>
```

mysql

5. Create index on Student:

Query:

```
create index S_Index on Student(s_name, cgpa);
```

Output:

```

1> create index S_Index on Student(s_name,cgpa);
Query OK, 0 rows affected (0.12 sec)
Records: 0 Duplicates: 0 Warnings: 0

```

Assignment Queries:

1. Insert at least 10 records in the Student table and insert other tables accordingly.

Query:

Student -

```

INSERT INTO Student (s_id, Drive_id, T_id, s_name, CGPA, s_branch, S_dob) VALUES (1, 101, 1, 'Alana', 8.5, 'Computer Engineering', '2000-01-15'), (2, 102, 2, 'David', 7.8, 'IT', '1999-02-20'), (3, 103, 3, 'Danny', 9.1, 'Electrical Engineering', '2000-03-25'), (4, 104, 4, 'Amalia', 6.9, 'Computer Engineering', '1998-04-30'), (5, 105, 5, 'Diya', 7.2, 'IT', '2000-05-10'), (6, 106, 6, 'Bansi', 6.5, 'Electrical Engineering', '1999-06-15'), (7, 107, 7, 'Chinmayi', 8.0, 'Computer Engineering', '2000-07-20'), (8, 108, 1, 'Dhanashree', 9.0, 'IT', '1998-08-25'), (9, 109, 2, 'Anu', 7.5, 'Electrical Engineering', '1999-09-30'), (10, 110, 3, 'Deepak', 8.3, 'Computer Engineering', '2000-10-10');

```

Output:

```

mysql> INSERT INTO Student (s_id, Drive_id, T_id, s_name, CGPA, s_branch, S_dob) VALUES (1, 101, 1, 'Alana', 8.5, 'Computer Engineering', '2000-01-15'), (2, 102, 2, 'David', 7.8, 'IT', '1999-02-20'), (3, 103, 3, 'Danny', 9.1, 'Electrical Engineering', '2000-03-25'), (4, 104, 4, 'Amalia', 6.9, 'Computer Engineering', '1998-04-30'), (5, 105, 5, 'Diya', 7.2, 'IT', '2000-05-10'), (6, 106, 6, 'Bansi', 6.5, 'Electrical Engineering', '1999-06-15'), (7, 107, 7, 'Chinmayi', 8.0, 'Computer Engineering', '2000-07-20'), (8, 108, 1, 'Dhanashree', 9.0, 'IT', '1998-08-25'), (9, 109, 2, 'Anu', 7.5, 'Electrical Engineering', '1999-09-30'), (10, 110, 3, 'Deepak', 8.3, 'Computer Engineering', '2000-10-10');
Query OK, 10 rows affected (0.01 sec)
Records: 10 Duplicates: 0 Warnings: 0

```

```

mysql> select * from Student;
+----+-----+-----+-----+-----+-----+-----+
| s_id | drive_id | T_id | s_name | cgpa | s_branch | s_dob |
+----+-----+-----+-----+-----+-----+-----+
| 1 | 101 | 1 | Alana | 8.5 | Computer Engineering | 2000-01-15 |
| 2 | 102 | 2 | David | 7.8 | IT | 1999-02-20 |
| 3 | 103 | 3 | Danny | 9.1 | Electrical Engineering | 2000-03-25 |
| 4 | 104 | 4 | Amalia | 6.9 | Computer Engineering | 1998-04-30 |
| 5 | 105 | 5 | Diya | 7.2 | IT | 2000-05-10 |
| 6 | 106 | 6 | Bansi | 6.5 | Electrical Engineering | 1999-06-15 |
| 7 | 107 | 7 | Chinmayi | 8 | Computer Engineering | 2000-07-20 |
| 8 | 108 | 1 | Dhanashree | 9 | IT | 1998-08-25 |
| 9 | 109 | 2 | Anu | 7.5 | Electrical Engineering | 1999-09-30 |
| 10 | 110 | 3 | Deepak | 8.3 | Computer Engineering | 2000-10-10 |
+----+-----+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)

```

PlacementDrive -

```

INSERT INTO PlacementDrive (Drive_id, Pcompany_name, package, location) VALUES (1, 'Reliance Industries', 950000.00, 'Mumbai'), (2, 'Flipkart', 900000.00, 'Pune'), (3, 'Aditya Birla Group', 850000.00, 'Bangalore'), (4, 'Mahindra & Mahindra', 920000.00, 'Chennai'), (5, 'Paytm', 870000.00, 'Pune'), (6, 'Ola Cabs', 890000.00, 'Mumbai'), (7, 'Zomato', 860000.00, 'Hyderabad');

```

Output:

```

mysql> INSERT INTO PlacementDrive (Drive_id, Pcompany_name, package, location) VALUES (1, 'Reliance Industries', 950000.00, 'Mumbai'), (2, 'Flipkart', 900000.00, 'Pune'), (3, 'Aditya Birla Group', 850000.00, 'Bangalore'), (4, 'Mahindra & Mahindra', 920000.00, 'Chennai'), (5, 'Paytm', 870000.00, 'Pune'), (6, 'Ola Cabs', 890000.00, 'Mumbai'), (7, 'Zomato', 860000.00, 'Hyderabad');
Query OK, 7 rows affected (0.02 sec)
Records: 7 Duplicates: 0 Warnings: 0

```

```

mysql> select * from PlacementDrive;
+-----+-----+-----+-----+
| Drive_id | Pcompany_name | package | location |
+-----+-----+-----+-----+
| 1 | Reliance Industries | 950000 | Mumbai |
| 2 | Flipkart | 900000 | Pune |
| 3 | Aditya Birla Group | 850000 | Bangalore |
| 4 | Mahindra & Mahindra | 920000 | Chennai |
| 5 | Paytm | 870000 | Pune |
| 6 | Ola Cabs | 890000 | Mumbai |
| 7 | Zomato | 860000 | Hyderabad |
+-----+-----+-----+-----+
7 rows in set (0.00 sec)

```

Training –

```
INSERT INTO Training (T_id, Tcompany_name, T_Fee, T_year) VALUES (1, 'Tata Consultancy Services', 50000.00, 2016), (2, 'Infosys', 60000.00, 2018), (3, 'Wipro', 55000.00, 2020), (4, 'HCL Technologies', 52000.00, 2019), (5, 'Tech Mahindra', 58000.00, 2021), (6, 'Cognizant', 62000.00, 2022), (7, 'Larsen & Toubro Infotech', 57000.00, 2023);
```

Output:

```
mysql> INSERT INTO Training (T_id, Tcompany_name, T_Fee, T_year) VALUES (1, 'Tata Consultancy Services', 50000.00, 2016), (2, 'Infosys', 60000.00, 2018), (3, 'Wipro', 55000.00, 2020), (4, 'HCL Technologies', 52000.00, 2019), (5, 'Tech Mahindra', 58000.00, 2021), (6, 'Cognizant', 62000.00, 2022), (7, 'Larsen & Toubro Infotech', 57000.00, 2023);
Query OK, 7 rows affected (0.01 sec)
Records: 7 Duplicates: 0 Warnings: 0
```

```
mysql> select * from Training;
+----+-----+-----+-----+
| T_id | Tcompany_name | T_fee | T_year |
+----+-----+-----+-----+
| 1    | Tata Consultancy Services | 50000 | 2016   |
| 2    | Infosys        | 60000 | 2018   |
| 3    | Wipro          | 55000 | 2020   |
| 4    | HCL Technologies | 52000 | 2019   |
| 5    | Tech Mahindra  | 58000 | 2021   |
| 6    | Cognizant      | 62000 | 2022   |
| 7    | Larsen & Toubro Infotech | 57000 | 2023   |
+----+-----+-----+-----+
7 rows in set (0.00 sec)
```

2. Display all students details with branch 'Computer' and 'IT' and student name starting with 'a' or 'd'.

Query:

```
select * from Student where (s_branch='Computer Engineering' or s_branch='IT') and (s_name like 'A%' or s_name like 'D%');
```

Output:

```
mysql> select * from Student where (s_branch='Computer Engineering' or s_branch='IT') and (s_name like 'A%' or s_name like 'D%');
+----+-----+----+-----+-----+-----+-----+
| s_id | drive_id | T_id | s_name | cgpa | s_branch | s_dob |
+----+-----+----+-----+-----+-----+-----+
| 1    | 101      | 1    | Alana  | 8.5  | Computer Engineering | 2000-01-15 |
| 4    | 104      | 4    | Amalia | 6.9  | Computer Engineering | 1998-04-30 |
| 2    | 102      | 2    | David  | 7.8  | IT | 1999-02-20 |
| 10   | 110      | 3    | Deepak | 8.3  | Computer Engineering | 2000-10-10 |
| 8    | 108      | 1    | Dhanashree | 9    | IT | 1998-08-25 |
| 5    | 105      | 5    | Diya   | 7.2  | IT | 2000-05-10 |
+----+-----+----+-----+-----+-----+-----+
6 rows in set (0.01 sec)
```

3. List the number of different companies.(use of distinct)

Query:

```
select distinct Pcompany_name from PlacementDrive;
```

Output:

```
mysql> select distinct Pcompany_name from PlacementDrive;
+-----+
| Pcompany_name |
+-----+
| Reliance Industries |
| Flipkart          |
| Aditya Birla Group |
| Mahindra & Mahindra |
| Paytm             |
| Ola Cabs           |
| Zomato             |
+-----+
7 rows in set (0.01 sec)
```

4. Give 15% increase in fee of the Training whose joining year is 2019.

Query:

update Training set T_fee=T_fee+(T_fee*0.15) where T_year=2019;

Output:

```
mysql> update Training set T_fee=T_fee+(T_fee*0.15) where T_year=2019;
Query OK, 1 row affected (0.02 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from Training;
+----+-----+-----+-----+
| T_id | Tcompany_name | T_fee | T_year |
+----+-----+-----+-----+
| 1 | Tata Consultancy Services | 59000 | 2016 |
| 2 | Infosys | 60000 | 2018 |
| 3 | Wipro | 55000 | 2020 |
| 4 | HCL Technologies | 59800 | 2019 |
| 5 | Tech Mahindra | 58000 | 2021 |
| 6 | Cognizant | 62000 | 2022 |
| 7 | Larsen & Toubro Infotech | 57000 | 2023 |
+----+-----+-----+-----+
7 rows in set (0.00 sec)
```

5. Delete Student details having CGPA score less than 7.

Query:

delete from Student where cgpa<7;

Output:

```
mysql> delete from Student where cgpa<7;
Query OK, 2 rows affected (0.02 sec)

mysql> select
-> ^C
mysql> select * from Student;
+----+-----+-----+-----+-----+-----+-----+
| s_id | drive_id | T_id | s_name | cgpa | s_branch | s_dob |
+----+-----+-----+-----+-----+-----+-----+
| 1 | 101 | 1 | Alana | 8.5 | Computer Engineering | 2000-01-15 |
| 2 | 102 | 2 | David | 7.8 | IT | 1999-02-20 |
| 3 | 103 | 3 | Danny | 9.1 | Electrical Engineering | 2000-03-25 |
| 5 | 105 | 5 | Diya | 7.2 | IT | 2000-05-10 |
| 7 | 107 | 7 | Chinmayi | 8 | Computer Engineering | 2000-07-20 |
| 8 | 108 | 1 | Dhanashree | 9 | IT | 1998-08-25 |
| 9 | 109 | 2 | Anu | 7.5 | Electrical Engineering | 1999-09-30 |
| 10 | 110 | 3 | Deepak | 8.3 | Computer Engineering | 2000-10-10 |
+----+-----+-----+-----+-----+-----+-----+
8 rows in set (0.00 sec)
```

6. Find the names of companies belonging to Pune or Mumbai

Query:

select Pcompany_name from PlacementDrive where location='Pune' or location='Mumbai';

Output:

```
mysql> select Pcompany_name from PlacementDrive where location='Pune' or location='Mumbai';
+-----+
| Pcompany_name |
+-----+
| Reliance Industries |
| Flipkart |
| Paytm |
| Ola Cabs |
+-----+
4 rows in set (0.00 sec)
```

7. Find the student name who joined training in 1-1-2019 as well as in 1-1-2021

Query:

SELECT s.s_name, t.Tcompany_name, t.T_year AS training_year FROM Student s JOIN Training t
ON s.T_id = t.T_id WHERE t.T_year IN (2019, 2021);

Output:

```
mysql> SELECT s.s_name, t.Tcompany_name, t.T_year AS training_year FROM Student s JOIN Training t ON s.T_id = t.T_id WHERE t.T_year IN (2019, 2021);
```

s_name	Tcompany_name	training_year
Diya	Tech Mahindra	2021

1 row in set (0.01 sec)

8. Find the student name having maximum CGPA score and names of students having CGPA score between 7 to 9

Query for maximum cgpa:

```
SELECT s_name, CGPA FROM Student WHERE CGPA = (SELECT MAX(CGPA) FROM Student);
```

Output:

```
mysql> SELECT s_name, CGPA FROM Student WHERE CGPA = (SELECT MAX(CGPA) FROM Student);
```

s_name	CGPA
Danny	9.1

1 row in set (0.02 sec)

Query for cgpa between 7 to 9:

```
SELECT s_name, cgpa FROM Student WHERE cgpa BETWEEN 7 AND 9;
```

Output:

```
mysql> SELECT s_name, cgpa FROM Student WHERE cgpa BETWEEN 7 AND 9;
```

s_name	cgpa
Alana	8.5
Anu	7.5
Chinmayi	8
David	7.8
Deepak	8.3
Dhanashree	9
Diya	7.2

7 rows in set (0.01 sec)

9. Display all Student name with T_id with decreasing order of Fees

Query:

```
SELECT s.s_name, s.T_id, t.T_fee FROM Student s JOIN Training t ON s.T_id = t.T_id ORDER BY t.T_fee DESC;
```

Output:

```
mysql> SELECT s.s_name, s.T_id, t.T_fee FROM Student s JOIN Training t ON s.T_id = t.T_id ORDER BY t.T_fee DESC;
```

s_name	T_id	T_fee
David	2	60000
Anu	2	60000
Diya	5	58000
Chinmayi	7	57000
Danny	3	55000
Deepak	3	55000
Alana	1	50000
Dhanashree	1	50000

8 rows in set (0.01 sec)

10. Display PCompany name, S_name ,location and Package with Package 30K, 40K and 50k

Query:

SELECT pd.Pcompany_name, s.s_name, pd.location, pd.package FROM PlacementDrive pd JOIN Student s ON pd.Drive_id = s.Drive_id WHERE pd.package=30000 or pd.package=40000 or pd.package=50000;

Output:

```
mysql> select * from Student;
```

s_id	drive_id	T_id	s_name	cgpa	s_branch	s_dob
6	1	101	Siddhi Borse	9.75	Computer Science	2000-05-15
7	2	102	Dhanashree Borde	9.85	Electrical Engineering	1999-11-20
8	3	103	Anushree Gattani	9.92	Computer Science	2001-08-10
9	4	104	Shreeja Barve	9.65	Chemical Engineering	2000-02-28
10	5	105	Madhu Pawar	9.78	Civil Engineering	2002-04-17
16	6	103	Akash Patel	9.6	Mechanical Engineering	2001-03-25
17	7	104	Priya Sharma	9.72	Electronics and Communication	2000-09-12
19	9	105	Neha Gupta	9.88	Computer Science	1999-07-31
24	22	103	Drishti Gupta	9.88	Computer Science	1999-07-31

9 rows in set (1.75 sec)

```
mysql> select * from PlacementDrive;
```

Drive_id	Pcompany_name	package	location
1	ABC Technologies	800000	New York
2	XYZ Corporation	750000	San Francisco
3	Tech Innovators Inc.	900000	Seattle
4	Global Solutions Ltd.	700000	London
5	Data Experts LLC	850000	Bangalore
6	XYZ Corporation	800000	Mumbai
7	Persistent Systems	700000	Pune

7 rows in set (0.00 sec)

```
mysql> SELECT pd.Pcompany_name, s.s_name, pd.location, pd.package FROM PlacementDrive pd JOIN Student s ON pd.Drive_id = s.Drive_id WHERE pd.package=800000 or pd.package=900000 or pd.package=700000;
```

Pcompany_name	s_name	location	package
ABC Technologies	Siddhi Borse	New York	800000
Tech Innovators Inc.	Anushree Gattani	Seattle	900000
Global Solutions Ltd.	Shreeja Barve	London	700000
XYZ Corporation	Akash Patel	Mumbai	800000
Persistent Systems	Priya Sharma	Pune	700000

5 rows in set (0.00 sec)