

ASSIGNMENT - A3

SQL Queries - all types of Join, Sub-Query and View:

Write at least 10 SQL queries for suitable database application using SQL DML* statements.

```
mysql> show databases;
```

```
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
```

```
5 rows in set (0.00 sec)
```

```
mysql> create database practical;
```

```
Query OK, 1 row affected (0.02 sec)
```

```
mysql> use practical;
```

```
Database changed
```

```
mysql> CREATE TABLE Student (
    id int PRIMARY KEY AUTO_INCREMENT,
    admission_no varchar(45) NOT NULL,
    first_name varchar(45) NOT NULL,
    last_name varchar(45) NOT NULL,
    age int,
    city varchar(25) NOT NULL
);
```

```
Query OK, 0 rows affected (0.10 sec)
```

```
mysql> CREATE TABLE Fee (
    -> admission_no varchar(45) NOT NULL,
    -> course varchar(45) NOT NULL,
    -> amount_paid int
    -> );
```

```
Query OK, 0 rows affected (0.08 sec)
```

```
INSERT INTO Student(admission_no, first_name, last_name, age, city) VALUES
(1001,'Shital','Gayke',18,'Sinnar');
```

```
Query OK, 1 row affected (0.01 sec)
```

```
INSERT INTO Student(admission_no, first_name, last_name, age, city) VALUES
(1002,'Sakshi','More',19,'Nashik')
```

```
INSERT INTO Student(admission_no, first_name, last_name, age, city) VALUES
(1003,'Nidhi','Jadhav',17,'Nashik');
```

```
Query OK, 1 row affected (0.01 sec)
```

```
mysql> INSERT INTO Student(admission_no, first_name, last_name, age, city)
VALUES (1004,'Ajay','Mendade',18,'Satpur');
```

Query OK, 1 row affected (0.01 sec)

```
mysql> INSERT INTO Student(admission_no, first_name, last_name, age, city)
VALUES (1005,'Prashant','More',19,'Wani');
```

Query OK, 1 row affected (0.02 sec)

```
INSERT INTO Student(admission_no, first_name, last_name, age, city) VALUES
(1006,'Alok', 'Pandit',18,'Nashik');
```

Query OK, 1 row affected (0.02 sec)

```
mysql> INSERT INTO Student(admission_no, first_name, last_name, age, city)
VALUES (1007,'Sanju', 'Banka',18,'Bhagur');
```

Query OK, 1 row affected (0.01 sec)

```
mysql> INSERT INTO Fee (admission_no, course, amount_paid) VALUES
-> (1001,'Android',10000);
```

Query OK, 1 row affected (0.06 sec)

```
mysql> INSERT INTO Fee (admission_no, course, amount_paid) VALUES (1002,'Data
Science',15000);
```

Query OK, 1 row affected (0.01 sec)

```
mysql> INSERT INTO Fee (admission_no, course, amount_paid) VALUES
(1003,'SQL',18000);
```

Query OK, 1 row affected (0.01 sec)

```
mysql> INSERT INTO Fee (admission_no, course, amount_paid) VALUES
(1004,'Python',20000);
```

Query OK, 1 row affected (0.02 sec)

```
mysql> INSERT INTO Fee (admission_no, course, amount_paid) VALUES
(1005,'Java',8000);
```

Query OK, 1 row affected (0.01 sec)

```
INSERT INTO Fee (admission_no, course, amount_paid) VALUES (1010,'Machine
Learning',25000);
```

Query OK, 1 row affected (0.02 sec)

```
mysql> INSERT INTO Fee (admission_no, course, amount_paid) VALUES (1011,'Cyber
Security',22000);
```

Query OK, 1 row affected (0.01 sec)

```
mysql> SELECT * FROM Student;
```

id	admission_no	first_name	last_name	age	city
1	1001	Shital	Gayke	18	Sinnar
2	1002	Sakshi	More	19	Nashik
3	1003	Nidhi	Jadhav	17	Nashik
4	1004	Ajay	Mendade	18	Satpur
5	1005	Prashant	More	19	Wani
6	1006	Alok	Pandit	18	Nashik
7	1007	Sanju	Banka	18	Bhagur

7 rows in set (0.00 sec)

```
mysql> SELECT * FROM Fee;
```

admission_no	course	amount_paid
1001	Android	10000
1002	Data Science	15000
1003	SQL	18000
1004	Python	20000
1005	Java	8000
1010	Machine Learning	25000
1011	Cyber Security	22000

7 rows in set (0.00 sec)

```
mysql> SELECT s.admission_no,s.first_name,s.last_name,f.course,f.amount_paid
FROM Student s
INNER JOIN Fee f
ON s.admission_no = f.admission_no;
```

admission_no	first_name	last_name	course	amount_paid
1001	Shital	Gayke	Android	10000
1002	Sakshi	More	Data Science	15000
1003	Nidhi	Jadhav	SQL	18000
1004	Ajay	Mendade	Python	20000
1005	Prashant	More	Java	8000

5 rows in set (0.01 sec)

```
mysql> SELECT s.admission_no,s.first_name,s.last_name,f.course,f.amount_paid
FROM Student s LEFT JOIN Fee f ON s.admission_no = f.admission_no;
```

admission_no	first_name	last_name	course	amount_paid
1001	Shital	Gayke	Android	10000
1002	Sakshi	More	Data Science	15000
1003	Nidhi	Jadhav	SQL	18000
1004	Ajay	Mendade	Python	20000
1005	Prashant	More	Java	8000
1006	Alok	Pandit	NULL	NULL
1007	Sanju	Banka	NULL	NULL

7 rows in set (0.01 sec)

```
mysql> SELECT s.admission_no,s.first_name,s.last_name,f.course,f.amount_paid
FROM Student s RIGHT JOIN Fee f ON s.admission_no = f.admission_no;
```

admission_no	first_name	last_name	course	amount_paid
1001	Shital	Gayke	Android	10000
1002	Sakshi	More	Data Science	15000
1003	Nidhi	Jadhav	SQL	18000

1004	Ajay	Mendade	Python	20000
1005	Prashant	More	Java	8000
NULL	NULL	NULL	Machine Learning	25000
NULL	NULL	NULL	Cyber Security	22000

7 rows in set (0.00 sec)

```
mysql> SELECT s.admission_no,s.first_name,s.last_name,f.course,f.amount_paid
FROM Student s FULL JOIN Fee f ON s.admission_no = f.admission_no;
```

admission_no	first_name	last_name	course	amount_paid
1001	Shital	Gayke	Android	10000
1002	Sakshi	More	Data Science	15000
1003	Nidhi	Jadhav	SQL	18000
1004	Ajay	Mendade	Python	20000
1005	Prashant	More	Java	8000
1006	Alok	Pandit	NULL	NULL
1007	Sanju	Banka	NULL	NULL
1010	NULL	NULL	Machine Learning	25000
1011	NULL	NULL	Cyber Security	22000

```
mysql> select * FROM Fee where amount_paid = (select min(amount_paid) FROM Fee);
```

admission_no	course	amount_paid
1005	Java	8000

7 rows in set (0.00 sec)

```
mysql>
```