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Lab02: Querying the Tables

Exercises

Using StudentInformation database, formulate the following queries:

1. Select all theory based courses that belong to computer science program from course table.

Query:

```
select * from Course where CreditHrsTheory is not Null
```

Results Messages

	CourseID	CourseName	CreditHrsTheory	CreditHrsLab	ProgID	Semester
1	1	Calculus - 1	3	0	1	1
2	2	Business Communications	2	0	1	1
3	3	Introduction To Computing	3	1	1	1
4	4	Calculus - 2	3	0	1	2
5	5	Pak Studies	2	0	1	2
6	6	Programming Fundamentals	3	1	1	2
7	7	Discrete Maths	3	0	1	3
8	8	Data Structures	3	1	1	3
9	9	Digital Logic	3	1	1	4
10	10	Visual Prog	2	1	1	4
11	11	Computer Arch and Design	3	1	1	4
12	12	Project Management	3	0	1	4

2. List name of all students whose name starts with letter 'S'.

Query:

```
select StdName from Std where StdName like 's%'
```

Results Messages

	StdName
1	Sadia
2	Sarah
3	Sikandar

3. Display Name and designation of teachers whose manager is empty.

Query:

```sql
select teacherName,Job from teacher where manager is null
```

	teacherName	Job
1	Dr. Safdar	J. Associate Prof
2	Dr. Sohaib	Sr. Associate Prof

4. Display names of all students that end with alphabet 'S'.

Query:

```sql
select StdName from Std where StdName like '%s'
```
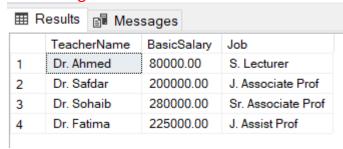
StdName

5. Show name, salary, job of those faculty who are not visiting and job is not J. Lecturer

Query:

```sql
select TeacherName,BasicSalary,Job from Teacher where Status !=
'Visiting' and Job != 'J.Lecturer'
```

	TeacherName	BasicSalary	Job
1	Dr. Ahmed	80000.00	S. Lecturer
2	Dr. Safdar	200000.00	J. Associate Prof
3	Dr. Sohaib	280000.00	Sr. Associate Prof
4	Dr. Fatima	225000.00	J. Assist Prof

6. Show all students whose name don't start with letter 'M', 'A' and 'R'.

Query:

```
select * from Std where StdName like '[^mar]%'
```

	StdID	StdName	StdDOB	FirstSem	StdPhone	StdAddress	StdEmail	GuardianContact	ProgID
1	1	Bisma	2000-02-02 00:00:00	1	03012345678	NULL	NULL	NULL	1
2	2	Sadia	2001-01-01 00:00:00	1	03112345678	NULL	NULL	NULL	1
3	3	Sarah	2001-03-05 00:00:00	3	03023456789	NULL	NULL	NULL	1
4	4	Namra	2001-06-19 00:00:00	3	03123456789	NULL	NULL	NULL	1
5	5	Waqar	1999-09-10 00:00:00	1	03312345678	NULL	NULL	NULL	1
6	6	Noman	2001-08-25 00:00:00	3	03323456789	NULL	NULL	NULL	1
7	9	Sikandar	2001-09-13 00:00:00	6	03612345678	NULL	NULL	NULL	1
8	10	Javed	2001-10-21 00:00:00	6	03512345678	NULL	NULL	NULL	1

7. Show names of those students whose name starts with 'A' and ends with 'S'.

Query:

```
select Stdname from std where stdname like 'a%s'
```
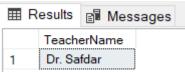
	Stdname

8. Display the list of Faculty names that have letters 'SA' in their names.

Query:

```
select TeacherName from Teacher where TeacherName like '%sa%'
```

	TeacherName
1	Dr. Safdar

9. Display all students along with their semesters they are in, (from semester 3-6.)

Query:

```
select * from Std where FirstSem between '3' and '6'
```

⊞ Results   🗐 Messages

	StdID	StdName	StdDOB	FirstSem	StdPhone	StdAddress	StdEmail	GuardianContact	ProgID
1	3	Sarah	2001-03-05 00:00:00	3	03023456789	NULL	NULL	NULL	1
2	4	Namra	2001-06-19 00:00:00	3	03123456789	NULL	NULL	NULL	1
3	6	Noman	2001-08-25 00:00:00	3	03323456789	NULL	NULL	NULL	1
4	7	Abrar	2001-01-05 00:00:00	4	03412345678	NULL	NULL	NULL	1
5	8	Mohsin	2001-03-23 00:00:00	4	03423456789	NULL	NULL	NULL	1
6	9	Sikandar	2001-09-13 00:00:00	6	03612345678	NULL	NULL	NULL	1
7	10	Javed	2001-10-21 00:00:00	6	03512345678	NULL	NULL	NULL	1

10. Display all faculty with respect to their salaries such that the highest salaried faculty comesfirst than next highest and so forth.

Query:

```
select * from teacher order by BasicSalary  desc
```

⊞ Results   🗐 Messages

	TeacherID	TeacherName	TeacherDOB	TeacherDOJ	TeacherGender	Status	BasicSalary	HouseRent	Job	Manager
1	6	Dr. Sohaib	1972-09-01 00:00:00	2012-01-06 00:00:00	Male	Permanent	280000.00	80000.00	Sr. Associate Prof	NULL
2	7	Dr. Fatima	1984-06-06 00:00:00	2018-02-01 00:00:00	Female	Permanent	225000.00	50000.00	J. Assist Prof	6
3	5	Dr. Safdar	1980-01-01 00:00:00	2014-01-01 00:00:00	Male	Permanent	200000.00	65000.00	J. Associate Prof	NULL
4	3	Dr. Khalid	1970-06-15 00:00:00	1998-09-21 00:00:00	Male	Visiting	100000.00	NULL	J. Assist Prof	5
5	4	Dr. Iman	1985-10-10 00:00:00	2018-09-01 00:00:00	Female	Visiting	100000.00	NULL	J. Lecturer	6
6	2	Dr. Ahmed	1980-01-31 00:00:00	2004-01-31 00:00:00	Male	Permanent	80000.00	45000.00	S. Lecturer	5