

DBMS ASSIGNMENT=5

BY:

Group 6

R Dhanush Kumar(18BCS071)

Raghu prasad J N (18BCS073)

R Naveen devang (18BCS072)

Aqtar Parveez(18BCS010)

Nisheer V (18BCS061)

Vivek Suresh (18BCS111)

Tables

Teacher

MySQL Workbench interface showing the 'teacher' table structure and a query result.

Table: teacher

Columns:

- Teacher_id: int PK
- TeacherName: varchar(50)
- subjects: varchar(200)
- ContactNO: int

Query: `select * from Teacher;`

Result Grid:

Teacher_id	TeacherName	subjects	ContactNO
1	Uma S	DBMS	-789376
2	Rajendra Hegadi	OOPS	987654321
3	JayaLakshmi	AI	789452136
4	Yayati Gupta	Discrete Mathematics	123654789
5	Sunil S	Computer networks	789456136

Action Output:

#	Time	Action	Message	Duration / Fetch
1	00:07:43	insert into teacher values(1,'Uma S','DBMS','080-789456)	1 row(s) affected	0.000 sec
2	00:07:43	insert into teacher values(2,'Rajendra Hegadi','OOPS','987654321)	1 row(s) affected	0.016 sec
3	00:07:43	insert into teacher values(3,'JayaLakshmi','AI','789452136)	1 row(s) affected	0.015 sec
4	00:07:43	insert into teacher values(4,'Yayati Gupta','Discrete Mathematics','123654789)	1 row(s) affected	0.016 sec
5	00:07:43	insert into teacher values(5,'Sunil S','Computer networks','789456136)	1 row(s) affected	0.000 sec
6	00:08:15	desc student	4 row(s) returned	0.015 sec / 0.000 sec
7	00:08:39	select * from student LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
8	00:09:00	select * from Teacher LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

Student

MySQL Workbench interface showing the 'student' table structure and a query result.

Table: student

Columns:

- Student_id: int PK
- StudentName: varchar(50)
- Age: int
- subjects: varchar(200)

Query: `select * from student;`

Result Grid:

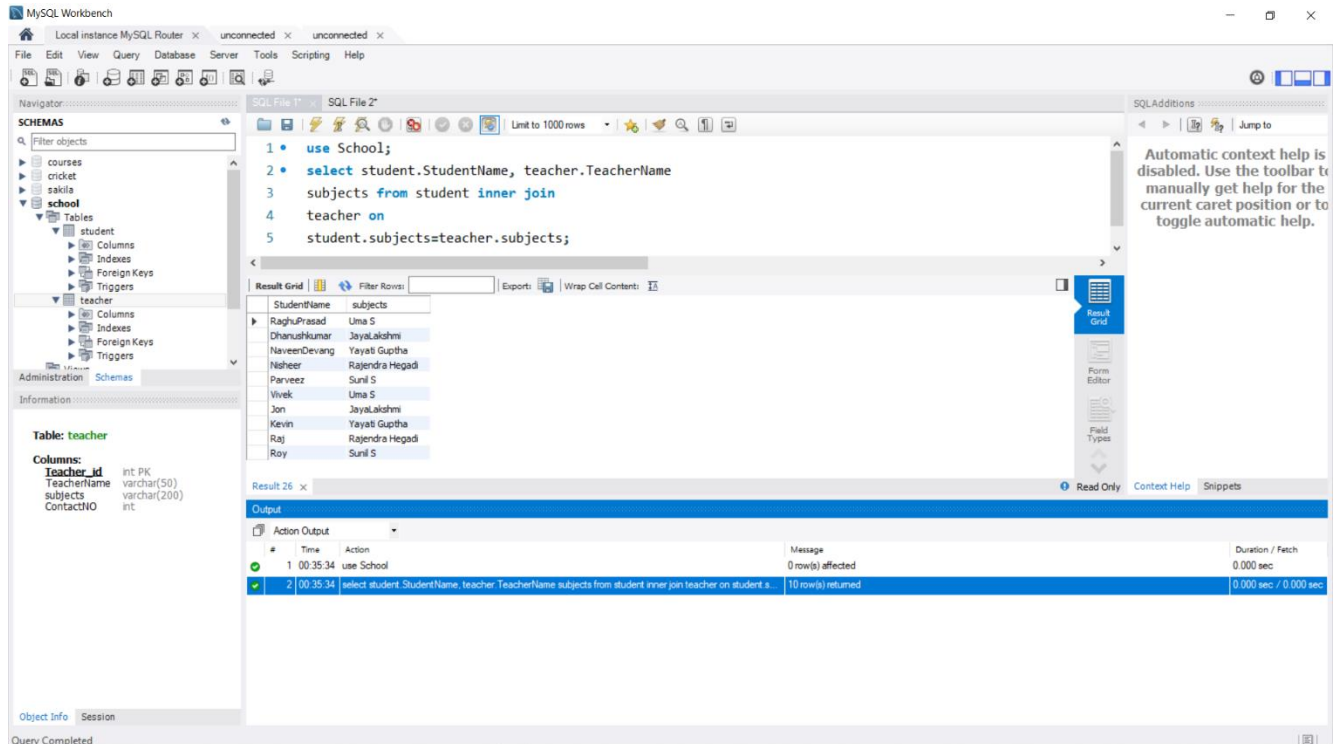
Student_id	StudentName	Age	subjects
1	RaghuPrasad	21	DBMS
2	Dhanushkumar	21	AI
3	NaveenDevang	19	Discrete Mathematics
4	Nishant	20	OOPS
5	Parvatez	20	Computer networks
6	Vivek	21	DBMS
7	Jon	21	AI
8	Kevin	20	Discrete Mathematics
9	Raj	21	OOPS
10	Roy	21	Computer networks

Action Output:

#	Time	Action	Message	Duration / Fetch
1	00:07:43	insert into teacher values(1,'Uma S','DBMS','080-789456)	1 row(s) affected	0.000 sec
2	00:07:43	insert into teacher values(2,'Rajendra Hegadi','OOPS','987654321)	1 row(s) affected	0.016 sec
3	00:07:43	insert into teacher values(3,'JayaLakshmi','AI','789452136)	1 row(s) affected	0.015 sec
4	00:07:43	insert into teacher values(4,'Yayati Gupta','Discrete Mathematics','123654789)	1 row(s) affected	0.016 sec
5	00:07:43	insert into teacher values(5,'Sunil S','Computer networks','789456136)	1 row(s) affected	0.000 sec
6	00:08:15	desc student	4 row(s) returned	0.015 sec / 0.000 sec
7	00:08:39	select * from student LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec

1. Inner Join – 3 Queries

a) Inner join Student and Teacher based on *Subjects*



The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 • use School;
2 • select student.StudentName, teacher.TeacherName
3   subjects from student inner join
4   teacher on
5   student.subjects=teacher.subjects;
```

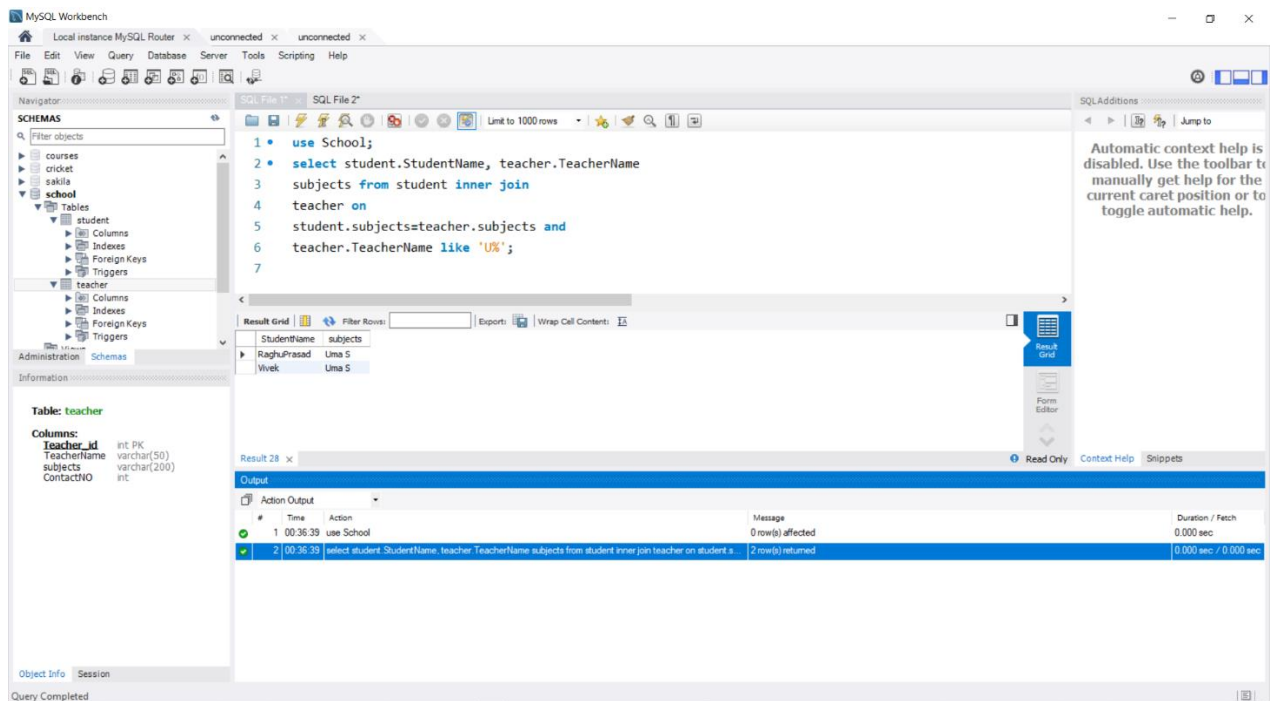
The result grid displays the following data:

StudentName	subjects
RaghuPrasad	Uma S
Dhanushkumar	JayaLakshmi
NaveenDevang	Yayati Gupta
Nisheer	Rajendra Hegad
Parveez	Sunil S
Vivek	Uma S
Jon	JayaLakshmi
Kevin	Yayati Gupta
Raj	Rajendra Hegad
Roy	Sunil S

The Action Output pane shows the execution of the query:

#	Time	Action	Message	Duration / Fetch
1	00:35:34	use School	0 row(s) affected	0.000 sec
2	00:35:34	select student.StudentName, teacher.TeacherName subjects from student inner join teacher on student.s	10 row(s) returned	0.000 sec / 0.000 sec

b) Inner join student and teacher based on *TeacherName*



The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 • use School;
2 • select student.StudentName, teacher.TeacherName
3   subjects from student inner join
4   teacher on
5   student.subjects=teacher.subjects and
6   teacher.TeacherName like 'UX';
7
```

The result grid displays the following data:

StudentName	subjects
RaghuPrasad	Uma S
Vivek	Uma S

The Action Output pane shows the execution of the query:

#	Time	Action	Message	Duration / Fetch
1	00:36:39	use School	0 row(s) affected	0.000 sec
2	00:36:39	select student.StudentName, teacher.TeacherName subjects from student inner join teacher on student.s	2 row(s) returned	0.000 sec / 0.000 sec

c) Inner join student and teacher based on
Teacher_id >3

The screenshot shows the MySQL Workbench interface. The SQL Editor contains the following query:

```
1 use School;
2 select student.StudentName, teacher.TeacherName
3 subjects from student inner join
4 teacher on
5 student.subjects=teacher.subjects and
6 teacher.Teacher_id >3;
7
```

The Results window displays the following data:

StudentName	subjects
NaveenDevang	Yayati Gupta
Parveez	Sunil S
Kevin	Yayati Gupta
Roy	Sunil S

The Output window shows the execution log:

#	Time	Action	Message	Duration / Fetch
1	00:36:39	use School	0 row(s) affected	0.000 sec
2	00:36:39	select student.StudentName, teacher.TeacherName subjects from student inner join teacher on student.s...	2 row(s) returned	0.000 sec / 0.000 sec
3	00:37:01	use School	0 row(s) affected	0.000 sec
4	00:37:01	select student.StudentName, teacher.TeacherName subjects from student inner join teacher on student.s...	4 row(s) returned	0.000 sec / 0.000 sec

The left sidebar shows the Schemas tree with the 'school' database selected. The 'teacher' table is highlighted, and its structure is shown in the Information tab:

Table: teacher

Columns:

- Teacher_id int PK
- TeacherName varchar(50)
- subjects varchar(200)
- ContactNO int

2. left Join – 3 Queries

a) Left join Student and Teacher based on *Subjects*

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 • use School;
2 • select student.StudentName, teacher.TeacherName
3   subjects from student left join
4   teacher on
5   student.subjects=teacher.subjects;
6
```

The result grid displays 10 rows of data:

StudentName	subjects
RaghuPrasad	Uma S
DhanushKumar	Jayalakshmi
NaveenDevang	Yayati Gupta
Nisheer	Rajendra Hegadi
Parveez	Sunil S
Vivek	Uma S
Jon	Jayalakshmi
Kevin	Yayati Gupta
Raj	Rajendra Hegadi
Roy	Sunil S

The Action Output pane shows the execution of the query, indicating that 10 rows were returned.

b) Left join student and teacher based on *TeacherName*

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 • use School;
2 • select student.StudentName, teacher.TeacherName
3   subjects from student left join
4   teacher on
5   student.subjects=teacher.subjects and
6   teacher.TeacherName like 'U%';
```

The result grid displays 10 rows of data:

StudentName	subjects
RaghuPrasad	Uma S
DhanushKumar	Jayalakshmi
NaveenDevang	Yayati Gupta
Nisheer	Rajendra Hegadi
Parveez	Sunil S
Vivek	Uma S
Jon	Jayalakshmi
Kevin	Yayati Gupta
Raj	Rajendra Hegadi
Roy	Sunil S

The Action Output pane shows the execution of the query, indicating that 10 rows were returned.

c) Left join student and teacher based on
Teacher_id >3

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 use School;
2 select student.StudentName, teacher.TeacherName
3 subjects from student left join
4 teacher on
5 student.subjects=teacher.subjects and
6 teacher.Teacher_id >3;
```

The result grid displays the following data:

StudentName	subjects
RaghuPrasad	
Dhanushkumar	
NaveenDevang	Yayati Guptha
Nisheer	
Parveez	Sunil S
Vivek	
Jon	
Kevin	Yayati Guptha
Raj	
Roy	Sunil S

The Action Output pane shows the following log:

#	Time	Action	Message	Duration / Fetch
3	00:37:01	use School	0 row(s) affected	0.000 sec
4	00:37:01	select student.StudentName, teacher.TeacherName subjects from student inner join teacher on student...	4 row(s) returned	0.000 sec / 0.000 sec
5	00:37:22	use School	0 row(s) affected	0.000 sec
6	00:37:22	select student.StudentName, teacher.TeacherName subjects from student left join teacher on student.s...	10 row(s) returned	0.000 sec / 0.000 sec
7	00:38:08	use School	0 row(s) affected	0.000 sec
8	00:38:08	select student.StudentName, teacher.TeacherName subjects from student left join teacher on student.s...	10 row(s) returned	0.000 sec / 0.000 sec
9	00:38:44	use School	0 row(s) affected	0.000 sec
10	00:38:44	select student.StudentName, teacher.TeacherName subjects from student left join teacher on student.s...	10 row(s) returned	0.000 sec / 0.000 sec

The table structure for 'teacher' is shown in the bottom left:

Table: teacher

Columns:

- Teacher_id int PK
- TeacherName varchar(50)
- subjects varchar(200)
- ContactNO int

3. Right outer Joins – 3 Queries

a) Right outer joins Student and Teacher based on *Subjects*

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 use School;
2 select student.StudentName, teacher.TeacherName
3 subjects from student Right join
4 teacher on
5 student.subjects=teacher.subjects;
```

The result grid displays the following data:

StudentName	subjects
RaghuPrasad	Uma S
Vivek	Uma S
Nishwer	Rajendra Hegadi
Raj	Rajendra Hegadi
Dhanushkumar	Jayalakshmi
Jon	Jayalakshmi
NaveenDevang	Yayati Gupta
Kevin	Yayati Gupta
Parveez	Sunil S
Roy	Sunil S

The Action Output pane shows the execution details of the query, including the time taken and the number of rows affected.

b) Right outer joins student and teacher based on *TeacherName*

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 use School;
2 select student.StudentName, teacher.TeacherName
3 subjects from student Right join
4 teacher on
5 student.subjects=teacher.subjects and
6 teacher.TeacherName like 'UX';
7
```

The result grid displays the following data:

StudentName	subjects
RaghuPrasad	Uma S
Vivek	Uma S
Nishwer	Rajendra Hegadi
Raj	Rajendra Hegadi
Dhanushkumar	Jayalakshmi
Jon	Jayalakshmi
NaveenDevang	Yayati Gupta
Kevin	Yayati Gupta
Parveez	Sunil S
Roy	Sunil S

The Action Output pane shows the execution details of the query, including the time taken and the number of rows affected.

c) Right Outer joins student and teacher based on *Teacher_id >3*

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
1 • use School;
2 • select student.StudentName, teacher.TeacherName
3 subjects from student Right join
4 teacher on
5 student.subjects=teacher.subjects and
6 teacher.Teacher_id >3;
```

The Results Grid shows the following data:

StudentName	subjects
Uma S	
Rajendra Hegadi	
Jayalakshmi	
NaveenDevang	Yayati Guptha
Kevin	Yayati Guptha
Parveez	Sunil S
Roy	Sunil S

The Action Output pane shows the following log:

#	Time	Action	Message	Duration / Fetch
11	00:39:13	use School	0 row(s) affected	0.000 sec
12	00:39:13	select student.StudentName, teacher.TeacherName subjects from student Right join teacher on student...	10 row(s) returned	0.000 sec / 0.000 sec
13	00:39:38	use School	0 row(s) affected	0.016 sec
14	00:39:38	select student.StudentName, teacher.TeacherName subjects from student Right join teacher on student...	6 row(s) returned	0.000 sec / 0.000 sec
15	00:40:01	use School	0 row(s) affected	0.015 sec
16	00:40:01	select student.StudentName, teacher.TeacherName subjects from student inner join teacher on student...	4 row(s) returned	0.000 sec / 0.000 sec
17	00:40:23	use School	0 row(s) affected	0.000 sec
18	00:40:23	select student.StudentName, teacher.TeacherName subjects from student Right join teacher on student...	7 row(s) returned	0.016 sec / 0.000 sec

The bottom status bar indicates "Query Completed".