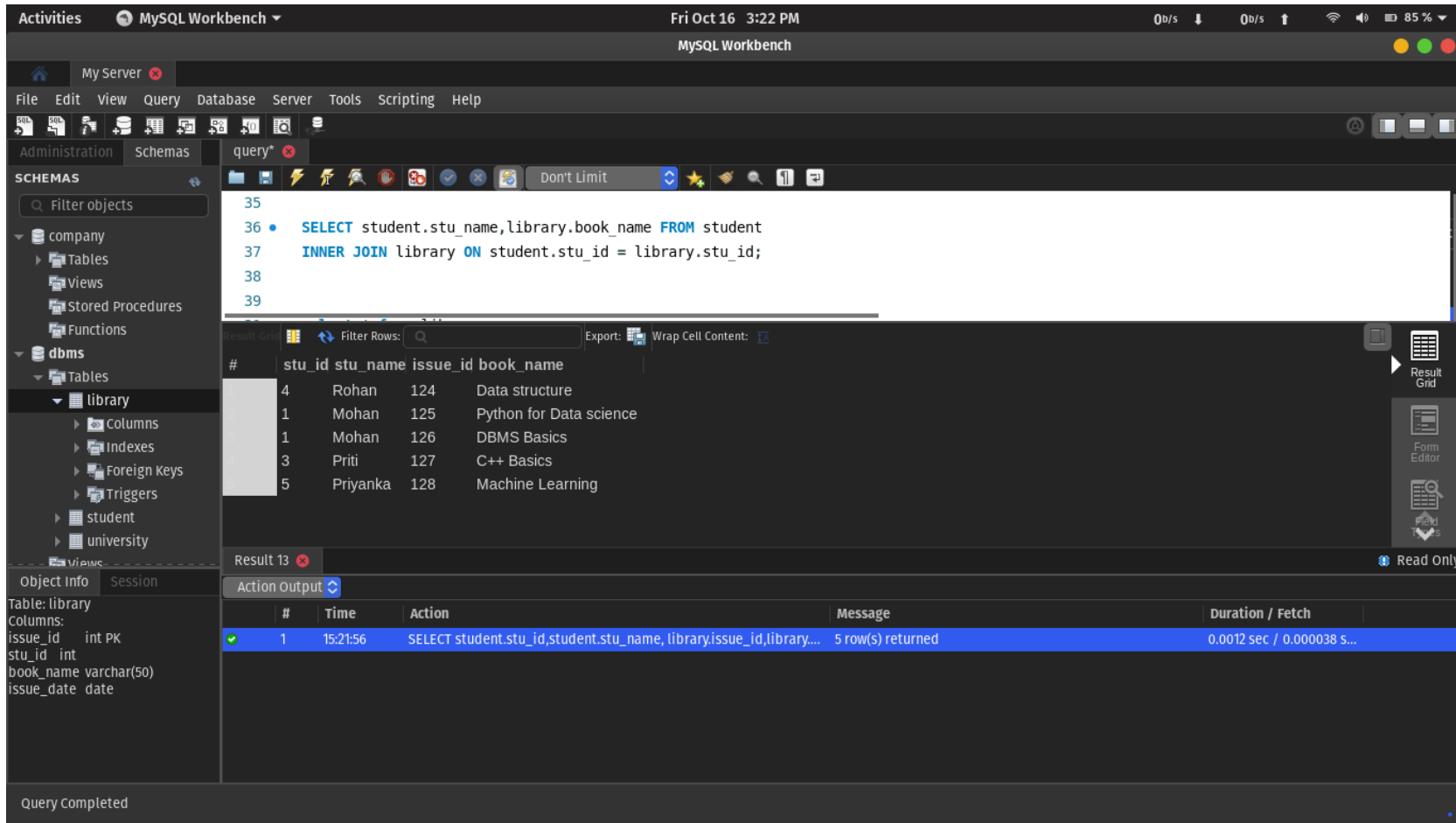


DBMS Assignment – 5

I. INNER JOIN

1. Query : `SELECT student.stu_id,student.stu_name,
library.issue_id,library.book_name FROM student
INNER JOIN library ON student.stu_id = library.stu_id;`

Output:-



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

```
35  
36 • SELECT student.stu_name,library.book_name FROM student  
37 INNER JOIN library ON student.stu_id = library.stu_id;  
38  
39
```

The Results window displays the output of the query, showing 5 rows of data:

#	stu_id	stu_name	issue_id	book_name
4	Rohan	124	Data structure	
1	Mohan	125	Python for Data science	
1	Mohan	126	DBMS Basics	
3	Priti	127	C++ Basics	
5	Priyanka	128	Machine Learning	

The Action Output window shows the execution details:

#	Time	Action	Message	Duration / Fetch
✓ 1	15:21:56	SELECT student.stu_id,student.stu_name, library.issue_id,library....	5 row(s) returned	0.0012 sec / 0.000038 S...

The bottom status bar indicates "Query Completed".

2. Query :

```
SELECT student.stu_name,library.book_name FROM student  
INNER JOIN library ON student.stu_id = library.stu_id;
```

Output:-

The screenshot displays the MySQL Workbench interface. The query editor at the top contains the following SQL query:

```
40  
41  
42 • SELECT student.stu_id,library.issue_id,library.issue_date FROM student  
43 INNER JOIN library ON student.stu_id = library.stu_id;
```

The query results are shown in a table with the following data:

#	stu_id	issue_id	issue_date
4	124	2020-03-05	
1	125	2020-04-15	
1	126	2020-04-21	
3	127	2020-05-03	
5	128	2020-05-10	

The bottom panel shows the 'Action output' tab with the following message:

#	Time	Action	Message	Duration / Fetch
✓ 1	15:23:43	SELECT student.stu_id,library.issue_id,library.issue_date FROM st...	5 row(s) returned	0.00084 sec / 0.000027 ...

The status bar at the bottom indicates 'Query Completed'.

3. Query : `SELECT student.stu_id,library.issue_id,library.issue_date FROM student INNER JOIN library ON student.stu_id = library.stu_id;`

Output :

The screenshot displays the MySQL Workbench interface. The 'Schemas' pane on the left shows the database structure, including a 'library' table under the 'dbms' schema. The main editor window contains the following SQL query:

```
35
36 • SELECT student.stu_name,library.book_name FROM student
37 INNER JOIN library ON student.stu_id = library.stu_id;
38
39
```

Below the query editor, the 'Result Grid' shows the output of the query:

#	stu_name	book_name
1	Rohan	Data structure
2	Mohan	Python for Data science
3	Mohan	DBMS Basics
4	Priti	C++ Basics
5	Priyanka	Machine Learning

The bottom pane shows the 'Action Output' table, which details the execution of the query:

#	Time	Action	Message	Duration / Fetch
1	15:23:43	SELECT student.stu_id,library.issue_id,library.issue_date FROM st...	5 row(s) returned	0.00084 sec / 0.000027 ...
2	15:24:12	SELECT student.stu_name,library.book_name FROM student INNE...	5 row(s) returned	0.0018 sec / 0.000098 S...
3	15:24:22	SELECT student.stu_name,library.book_name FROM student INNE...	5 row(s) returned	0.00089 sec / 0.000026...

The status bar at the bottom indicates 'Query Completed'.

II . LEFT OUTER JOIN

1. Query : `select student.stu_name,library.book_name from student left join library on student.stu_id=library.stu_id;`

Output :

The screenshot displays the MySQL Workbench interface. The 'Query 1' editor contains the following SQL query:

```
select student.stu_name,library.book_name from student
left join library on student.stu_id=library.stu_id;
```

The 'Result Grid' shows the output of the query, displaying two columns: 'stu_name' and 'book_name'. The results are as follows:

stu_name	book_name
Mohan	Python for Data science
Mohan	DBMS Basics
Ram	
Priti	C++ Basics
Rohan	Data structure
Priyanka	Machine Learning

The 'Output' pane at the bottom shows the execution log, including the time taken for each statement and the number of rows affected or returned. The final statement (line 35) returned 6 rows.

#	Time	Action	Message	Duration / Fetch
27	15:59:06	insert into student values (5,"Priyanka","Mumbai","F",16,8956475862)	1 row(s) affected	0.063 sec
28	15:59:06	select * from student LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
29	15:59:06	create table library(issue_id int primary key, stu_id int not null, book_name varchar(50), stu...	0 row(s) affected	0.203 sec
30	15:59:06	insert into library values(0124,4,"Data structure","M",2020-03-05)	1 row(s) affected	0.031 sec
31	15:59:06	insert into library values(0125,1,"Python for Data science","M",2020-04-15)	1 row(s) affected	0.016 sec
32	15:59:06	insert into library values(0126,1,"DBMS Basics","M",2020-04-21)	1 row(s) affected	0.016 sec
33	15:59:06	insert into library values(0127,3,"C++ Basics","F",2020-05-03)	1 row(s) affected	0.032 sec
34	15:59:06	insert into library values(0128,5,"Machine Learning","F",2020-05-10)	1 row(s) affected	0.016 sec
35	16:08:25	select student.stu_name,library.book_name from student left join library on student.stu_id=library.stu...	6 row(s) returned	0.000 sec / 0.000 sec

2. Query : `select * from student left join library on student.stu_id=library.stu_id where student.stu_name="Priti";`

Output:-

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'SCHEMAS' tree with 'dbms' selected. The main editor shows a query in 'Query 1' window:

```
select * from student
left join library on student.stu_id=library.stu_id where student.stu_name="Priti";
```

Below the query editor, the 'Result Grid' shows the output of the query:

stu_id	stu_name	stu_address	stu_gen	stu_age	stu_phone	issue_id	stu_id	book_name	stu_gender	issue_date
3	Priti	UP	F	19	8956475862	127	3	C++ Basics	F	2020-05-03

At the bottom, the 'Output' tab shows the execution log:

#	Time	Action	Message	Duration / Fetch
41	16:27:17	SELECT * FROM dbms.library LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
42	16:34:53	insert into library values(0130.2,"C++ Basics","M",2020-05-21)	Error Code: 1062. Duplicate entry '130' for key 'library.PRIMARY'	0.000 sec
43	16:36:24	insert into library values(0130.2,"C++ Basics","M",2020-05-21)	Error Code: 1062. Duplicate entry '130' for key 'library.PRIMARY'	0.000 sec
44	16:50:01	select student.stu_name,library.stu_id from student left join library on student.gender=library.gender L...	Error Code: 1054. Unknown column 'student.gender' in 'on clause'	0.016 sec
45	16:50:42	select * from student left join library on student.stu_id=library.stu_id where student.stu_name="Priti"...	1 row(s) returned	0.000 sec / 0.000 sec

3 Query:-

select * from student left join library on
student.stu_id=library.stu_id where student.stu_gen="M";

Output:-

The screenshot displays the MySQL Workbench interface. The 'Query' tab is active, showing the following SQL query:

```
select * from student  
left join library on student.stu_id=library.stu_id where student.stu_gen="M";
```

The 'Result Grid' shows the output of the query, which is a table with 11 columns: stu_id, stu_name, stu_address, stu_gen, stu_age, stu_phone, issue_id, stu_id, book_name, stu_gender, and issue_date. The results are as follows:

stu_id	stu_name	stu_address	stu_gen	stu_age	stu_phone	issue_id	stu_id	book_name	stu_gender	issue_date
1	Mohan	MP	M	21	8956475862	125	1	Python for Data science	M	2020-04-15
1	Mohan	MP	M	21	8956475862	126	1	DBMS Basics	M	2020-04-21
2	Ram	Rajasthan	M	40	7865428795	129	2	Machine Learning	M	2020-05-03
2	Ram	Rajasthan	M	40	7865428795	130	2	C++ Basics	M	2020-05-21
4	Rohan	Karnataka	M	22	8956475862	124	4	Data structure	M	2020-03-05

The 'Action Output' tab is also visible, showing the execution log of the query. The log includes the following entries:

#	Time	Action	Message	Duration / Fetch
40	16:27:05	SELECT * FROM dbms.student LIMIT 0, 1000	5 row(s) returned	0.094 sec / 0.000 sec
41	16:27:17	SELECT * FROM dbms.library LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
42	16:34:53	insert into library values(0130,2,"C++ Basics","M",2020-05-21)	Error Code: 1062. Duplicate entry '130' for key 'library.PRIMARY'	0.000 sec
43	16:36:24	insert into library values(0130,2,"C++ Basics","M",2020-05-21)	Error Code: 1062. Duplicate entry '130' for key 'library.PRIMARY'	0.000 sec
44	16:50:01	select student.stu_name,library.stu_id from student left join library on student.gender=library.gender L...	Error Code: 1054. Unknown column 'student.gender' in 'on clause'	0.016 sec
45	16:50:42	select * from student left join library on student.stu_id=library.stu_id where student.stu_name="Priti" ...	1 row(s) returned	0.000 sec / 0.000 sec
46	16:55:42	select * from student left join library on student.stu_id=library.stu_id where student.stu_gen="M" LIM...	5 row(s) returned	0.000 sec / 0.000 sec

III . RIGHT OUTER JOIN

1. Query :

```
select * from studentright join library on  
student.stu_id=library.stu_id
```

Output:-

The screenshot displays the MySQL Workbench interface. The 'Query 1' tab is active, showing the following SQL query:

```
-- right join  
select * from student  
right join library on student.stu_id=library.stu_id
```

The 'Result Grid' shows the output of the query, which is a right join between the 'student' and 'library' tables. The result set contains 7 rows, with the first row being a duplicate of the second row.

stu_id	stu_name	stu_address	stu_gen	stu_age	stu_phone	issue_id	stu_id	book_name	stu_gender	issue_date
4	Rohan	Karnataka	M	22	8956475862	124	4	Data structure	M	2020-03-05
1	Mohan	MP	M	21	8956475862	125	1	Python for Data science	M	2020-04-15
1	Mohan	MP	M	21	8956475862	126	1	DBMS Basics	M	2020-04-21
3	Priti	UP	F	19	8956475862	127	3	C++ Basics	F	2020-05-03
5	Priyanka	Mumbai	F	16	8956475862	128	5	Machine Learning	F	2020-05-10
2	Ram	Rajasthan	M	40	7865428795	129	2	Machine Learning	M	2020-05-03
2	Ram	Rajasthan	M	40	7865428795	130	2	C++ Basics	M	2020-05-21

The 'Output' tab at the bottom shows the execution log, including the query execution time and the number of rows returned.

#	Time	Action	Message	Duration / Fetch
41	16:27:17	SELECT * FROM dbms.library LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
42	16:34:53	insert into library values(0130,2,"C++ Basics","M","2020-05-21")	Error Code: 1062. Duplicate entry '130' for key 'library.PRIMARY'	0.000 sec
43	16:36:24	insert into library values(0130,2,"C++ Basics","M","2020-05-21")	Error Code: 1062. Duplicate entry '130' for key 'library.PRIMARY'	0.000 sec
44	16:50:01	select student.stu_name,library.stu_id from student left join library on student.gender=library.gender L...	Error Code: 1054. Unknown column 'student.gender' in 'on clause'	0.016 sec
45	16:50:42	select * from student left join library on student.stu_id=library.stu_id where student.stu_name="Priti"...	1 row(s) returned	0.000 sec / 0.000 sec
46	16:55:42	select * from student left join library on student.stu_id=library.stu_id where student.stu_gen="M" LIM...	5 row(s) returned	0.000 sec / 0.000 sec
47	17:03:06	select * from student right join library on student.stu_id=library.stu_id LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec

2. Query :

```
select * from student right join library on  
student.stu_id=library.stu_id where student.stu_name="Ram";
```

output:

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'SCHEMAS' tree with 'dbms' selected. The main editor shows a query in the 'Query 1' tab:

```
select * from student  
right join library on student.stu_id=library.stu_id where student.stu_name="Ram";
```

Below the query editor, the 'Result Grid' is visible, showing two rows of data:

stu_id	stu_name	stu_address	stu_gen	stu_age	stu_phone	issue_id	stu_id	book_name	stu_gender	issue_date
2	Ram	Rajasthan	M	40	7865428795	129	2	Machine Learning	M	2020-05-03
2	Ram	Rajasthan	M	40	7865428795	130	2	C++ Basics	M	2020-05-21

The bottom panel shows the 'Output' tab with a log of actions and their results:

#	Time	Action	Message	Duration / Fetch
44	16:50:01	select student.stu_name,library.stu_id from student left join library on student.gender=library.gender L...	Error Code: 1054. Unknown column 'student.gender' in 'on clause'	0.016 sec
45	16:50:42	select * from student left join library on student.stu_id=library.stu_id where student.stu_name="Priti"...	1 row(s) returned	0.000 sec / 0.000 sec
46	16:55:42	select * from student left join library on student.stu_id=library.stu_id where student.stu_gen="M" LIM...	5 row(s) returned	0.000 sec / 0.000 sec
47	17:03:06	select * from student right join library on student.stu_id=library.stu_id LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
48	17:11:33	select * from student right join library on student.stu_id=library.stu_id LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
49	17:14:44	select * from student right join library on student.stu_id=library.stu_id where student.stu_gen="F" LI...	2 row(s) returned	0.000 sec / 0.000 sec
50	17:17:06	select * from student right join library on student.stu_id=library.stu_id where student.stu_name="Ra...	2 row(s) returned	0.000 sec / 0.000 sec

3. Query : select * from student right join library on
student.stu_id=library.stu_id where student.stu_gen="F";

output:

MySQL Workbench

assignment5

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

compy

dbms

Tables

library

student

Views

Stored Procedures

Functions

sakila

student

sys

world

Administration Schemas

Information

Schema: dbms

Object Info Session

Query 1

personal library student library

Limit to 1000 rows

67

68

69 • select * from student

70 right join library on student.stu_id=library.stu_id where student.stu_gen="F";

71

72

73

74

75

76

77

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	stu_id	stu_name	stu_address	stu_gen	stu_age	stu_phone	issue_id	stu_id	book_name	stu_gender	issue_date
▶	3	Priti	UP	F	19	8956475862	127	3	C++ Basics	F	2020-05-03
	5	Priyanka	Mumbai	F	16	8956475862	128	5	Machine Learning	F	2020-05-10

Result 8 ×

Read Only Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✖	43 16:36:24	insert into library values(0130,2,"C++ Basics","M",2020-05-21)	Error Code: 1062. Duplicate entry '130' for key 'library.PRIMARY'	0.000 sec
✖	44 16:50:01	select student.stu_name,library.stu_id from student left join library on student.gender=library.gender L...	Error Code: 1054. Unknown column 'student.gender' in 'on clause'	0.016 sec
✔	45 16:50:42	select * from student left join library on student.stu_id=library.stu_id where student.stu_name="Priti"...	1 row(s) returned	0.000 sec / 0.000 sec
✔	46 16:55:42	select * from student left join library on student.stu_id=library.stu_id where student.stu_gen="M" LIM...	5 row(s) returned	0.000 sec / 0.000 sec
✔	47 17:03:06	select * from student right join library on student.stu_id=library.stu_id LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
✔	48 17:11:33	select * from student right join library on student.stu_id=library.stu_id LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
✔	49 17:14:44	select * from student right join library on student.stu_id=library.stu_id where student.stu_gen="F" LI...	2 row(s) returned	0.000 sec / 0.000 sec

BY GROUP :17

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