

MySQL Workbench

MySql@127.0.0.1:3306 x

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SCHEMAS

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comfaculty

project

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compstud

compstudent

customer

ruichomer12

Administration Schemas

Information

Table: project

Columns:

pno int PK

pname char(10)

weeks int

Query 1

```
1 • create table project12
2 (
3   pno int primary key,
4   pname char(30),
5   weeks int);
6 • insert into project12 values (1,'machine learning',4),(2,'IOT',3),(3,'database',8),(4,'data
7 • select * from project12;
```

Result Grid

pno	pname	weeks
1	machine learning	4
2	IOT	3
3	database	8
4	data mining	9
5	Network	10

Output

Action Output

#	Time	Action	Message	Duration / Fetch
7	12:57:55	DROP TABLE 'faculty'. 'project'	Error Code: 3730. Cannot drop table 'project' referenced by a foreign key constraint 'employee...	0.000 sec
8	12:58:24	create table project12 (pno int primary key, pname char(30), weeks int)	0 row(s) affected	0.016 sec
9	12:58:29	insert into project12 values (1,'machine learning',4),(2,'IOT',3),(3,'database',8),(4,'data mining'...	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.000 sec
10	12:58:58	select * from project12 LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Type here to search

33°C Smoke

12:59 PM 3/14/2023

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Administration Schemas

Information

Table: project

Columns:

pno int PK

pname char(10)

weeks int

Query 1

```
8 • create table employee12
9 (
10   eid int,
11   ename char(10),
12   sal int,
13   pno int ,
14   foreign key(pno) references project12(pno));
15 • insert into employee12 values (11,'Jay',20000,1),(12,'Sarvesh',300000,2);
16 • select * from employee12;
```

Result Grid

eid	ename	sal	pno
11	Jay	20000	1
12	Sarvesh	300000	2

Output

Action Output

#	Time	Action	Message	Duration / Fetch
11	13:00:11	create table employee (eid int, ename char(10), sal int, pno int, foreign key(pno) references ...	Error Code: 1050. Table 'employee' already exists	0.016 sec
12	13:00:28	create table employee12 (eid int, ename char(10), sal int, pno int, foreign key(pno) referenc...	0 row(s) affected	0.016 sec
13	13:03:02	insert into employee12 values (11,'Jay',20000,1),(12,'Sarvesh',300000,2)	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0	0.016 sec
14	13:03:28	select * from employee12 LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Type here to search

33°C Smoke

1:03 PM 3/14/2023

NATURAL JOIN

The screenshot shows the MySQL Workbench interface. The 'Query 1' editor contains the following SQL code:

```
14 foreign key(pno) references project12(pno));
15 insert into employee12 values (11,'Jay',20000,1),(12,'Sarvesh',300000,2);
16 select * from employee12;
17
18
19 SELECT * FROM PROJECT12 NATURAL JOIN EMPLOYEE12;
20
21
```

The 'Result Grid' shows the output of the query:

pno	pname	weeks	eid	ename	sal
1	machine learning	4	11	Jay	20000
2	IOT	3	12	Sarvesh	300000

The 'Action Output' pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
14	13:03:28	select * from employee12 LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
15	13:08:09	SELECT * FROM PROJECT NATRAL JOIN EMPLOYEE LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec
16	13:09:22	SELECT * FROM PROJECT12 NATRAL JOIN EMPLOYEE12 LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
17	13:09:33	SELECT * FROM PROJECT12 NATRAL JOIN EMPLOYEE12 LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

The 'Table: project' information pane shows the following columns:

- pno: int PK
- pname: char(10)
- weeks: int

CROSS JOIN

The screenshot shows the MySQL Workbench interface. The 'Query 1' editor contains the following SQL code:

```
13 pno int ,
14 foreign key(pno) references project12(pno));
15 insert into employee12 values (11,'Jay',20000,1),(12,'Sarvesh',300000,2);
16 select * from employee12;
17
18
19 SELECT * FROM PROJECT12 CROSS JOIN EMPLOYEE12;
20
21
```

The 'Result Grid' shows the output of the query:

pno	pname	weeks	eid	ename	sal	pno
1	machine learning	4	12	Sarvesh	300000	2
1	machine learning	4	11	Jay	20000	1
2	IOT	3	12	Sarvesh	300000	2
2	IOT	3	11	Jay	20000	1
3	database	8	12	Sarvesh	300000	2
3	database	8	11	Jay	20000	1
4	data mining	9	12	Sarvesh	300000	2
4	data mining	9	11	Jay	20000	1
5	Network	10	12	Sarvesh	300000	2
5	Network	10	11	Jay	20000	1

The 'Action Output' pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
15	13:08:09	SELECT * FROM PROJECT NATRAL JOIN EMPLOYEE LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec

The 'Table: project' information pane shows the following columns:

- pno: int PK
- pname: char(10)
- weeks: int

INNER JOIN

The screenshot shows the MySQL Workbench interface. The 'Query 1' editor contains the following SQL code:

```
15 • insert into employee12 values (11,'Jay',20000,1),(12,'Sarvesh',300000,2);
16 • select * from employee12;
17
18
19 • SELECT * FROM PROJECT12 INNER JOIN EMPLOYEE12 ON PROJECT12.PNO=EMPLOYEE12.PNO;
20
21
22
```

The 'Result Grid' displays the following data:

pno	pname	weeks	eid	ename	sal	pno
1	machine learning	4	11	Jay	20000	1
2	IOT	3	12	Sarvesh	300000	2

The 'Table: project' information is shown on the left:

Columns:

- pno: int PK
- pname: char(10)
- weeks: int

The status bar at the bottom shows an error message: "Error Code: 1054. Unknown column 'PROJECT12.PNO' in 'on clause'".

LEFT OUTER JOIN

The screenshot shows the MySQL Workbench interface. The 'Query 1' editor contains the following SQL code:

```
12 sal int,
13 pno int,
14 foreign key(pno) references project12(pno));
15 • insert into employee12 values (11,'Jay',20000,1),(12,'Sarvesh',300000,2);
16 • select * from employee12;
17
18
19 • SELECT * FROM PROJECT12 LEFT OUTER JOIN EMPLOYEE12 ON PROJECT12.PNO=EMPLOYEE12.PNO;
20
```

The 'Result Grid' displays the following data:

pno	pname	weeks	eid	ename	sal	pno
1	machine learning	4	11	Jay	20000	1
2	IOT	3	12	Sarvesh	300000	2
3	database	8	NULL	NULL	NULL	NULL
4	data mining	9	NULL	NULL	NULL	NULL
5	Network	10	NULL	NULL	NULL	NULL

The 'Table: project' information is shown on the left:

Columns:

- pno: int PK
- pname: char(10)
- weeks: int

The status bar at the bottom shows a message: "10 row(s) returned".

RIGHT OUTER JOIN

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'SCHEMAS' tree with 'faculty' and 'student' databases expanded. The 'project' table is selected under 'faculty'. The main editor shows a SQL query:

```
13 pno int ,
14 foreign key(pno) references project12(pno));
15 • insert into employee12 values (11,'Jay',20000,1),(12,'Sarvesh',300000,2);
16 • select * from employee12;
17
18
19 • SELECT * FROM PROJECT12 RIGHT OUTER JOIN EMPLOYEE12 ON PROJECT12.PNO=EMPLOYEE12.PNO;
20
21
```

The 'Result Grid' shows the following data:

pno	pname	weeks	eid	ename	sal	pno
1	machine learning	4	11	Jay	20000	1
2	IOT	3	12	Sarvesh	300000	2

The bottom status bar indicates that the query was executed at 14:17:07, returning 5 rows in 0.000 seconds.

FULL OUTER JOIN

MySQL Workbench

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Navigator

SCHEMAS

Filter objects

facility

- Tables
 - branch
 - comfacility
 - project
 - employee
 - stud
- Views
- Stored Procedures
- Functions

student

- Tables
 - branch
 - compstud
 - compstudent
 - customer
 - rychomur12

Administration Schemas

Information

Table: project

Columns:

- pno int PK
- pname char(10)
- weeks int

Query 1

```
15 • insert into employee12 values (11,'Jay',20000,1),(12,'Sarvesh',300000,2);
16 • select * from employee12;
17
18
19 • SELECT * FROM PROJECT12 LEFT OUTER JOIN EMPLOYEE12 ON PROJECT12.PNO=EMPLOYEE12.PNO
20 UNION
21 SELECT * FROM PROJECT12 RIGHT OUTER JOIN EMPLOYEE12 ON PROJECT12.PNO=EMPLOYEE12.PNO;
22
23
```

Result Grid

	pno	pname	weeks	eid	ename	sal	pno
1		machine learning	4	11	Jay	20000	1
2		IOT	3	12	Sarvesh	300000	2
3		database	8	NULL	NULL	NULL	NULL
4		data mining	9	NULL	NULL	NULL	NULL
5		Network	10	NULL	NULL	NULL	NULL

Result 9

Output

Action Output

Object Info Session

20 14:17:40 SELECT * FROM PROJECT12 RIGHT OUTER JOIN EMPLOYEE12 ON PROJECT12.PNO... 2 row(s) returned

Duration / Fetch 0.000 sec / 0.000 sec

2:18 PM 3/14/2023

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.