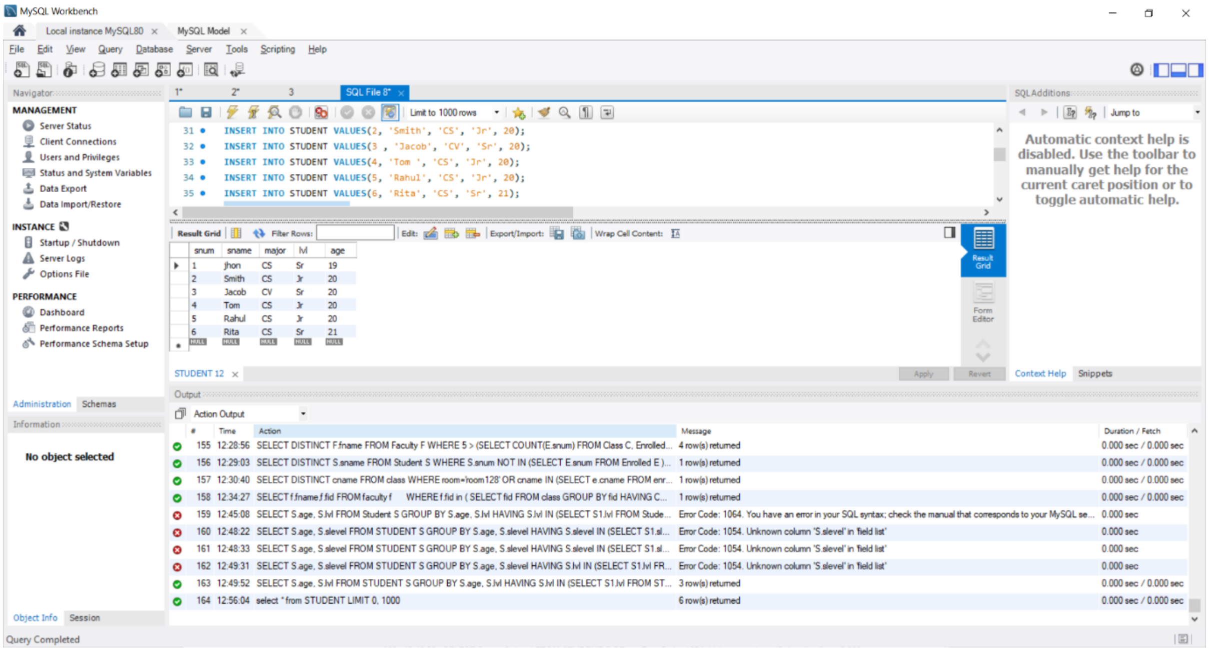
Student faculty

```
CREATE DATABASE student_faculty;

USE student_faculty;

CREATE TABLE student(

        snum INT,

        sname VARCHAR(10),

        major VARCHAR(2),

        lvl VARCHAR(2),

        age INT, primary key(snum));


CREATE TABLE faculty(

        fid INT,fname VARCHAR(20),

        deptid INT,

  PRIMARY KEY(fid));


CREATE TABLE class(

        cname VARCHAR(20),

        metts_at TIMESTAMP,

        room VARCHAR(10),

  fid INT,

        PRIMARY KEY(cname),

        FOREIGN KEY(fid) REFERENCES faculty(fid));


CREATE TABLE enrolled(

        snum INT,

        cname VARCHAR(20),

        PRIMARY KEY(snum,cname),

        FOREIGN KEY(snum) REFERENCES student(snum),

        FOREIGN KEY(cname) REFERENCES class(cname));
```

```
INSERT INTO STUDENT VALUES(1, 'jhon', 'CS', 'Sr', 19);

INSERT INTO STUDENT VALUES(2, 'Smith', 'CS', 'Jr', 20);

INSERT INTO STUDENT VALUES(3 , 'Jacob', 'CV', 'Sr', 20);

INSERT INTO STUDENT VALUES(4, 'Tom ', 'CS', 'Jr', 20);

INSERT INTO STUDENT VALUES(5, 'Rahul', 'CS', 'Jr', 20);

INSERT INTO STUDENT VALUES(6, 'Rita', 'CS', 'Sr', 21);

select * from STUDENT;
```



```
INSERT INTO STUDENT VALUES(2, 'Smith', 'CS', 'Jr', 20);
INSERT INTO STUDENT VALUES(3 , 'Jacob', 'CV', 'Sr', 20);
INSERT INTO STUDENT VALUES(4, 'Tom ', 'CS', 'Jr', 20);
INSERT INTO STUDENT VALUES(5, 'Rahul', 'CS', 'Jr', 20);
INSERT INTO STUDENT VALUES(6, 'Rita', 'CS', 'Sr', 21);
```

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

snum	sname	major	lvl	age
1	jhon	CS	Sr	19
2	Smith	CS	Jr	20
3	Jacob	CV	Sr	20
4	Tom	CS	Jr	20
5	Rahul	CS	Jr	20
6	Rita	CS	Sr	21
NULL	NULL	NULL	NULL	NULL

No object selected

	#	Time	Action	Message	Duration / Fetch
✓	155	12:28:56	SELECT DISTINCT F.fname FROM Faculty F WHERE 5 > (SELECT COUNT(E.snum) FROM Class C, Enrolled...	4 row(s) returned	0.000 sec / 0.000 sec
✓	156	12:29:03	SELECT DISTINCT S.sname FROM Student S WHERE S.snum NOT IN (SELECT E.snum FROM Enrolled E)...	1 row(s) returned	0.000 sec / 0.000 sec
✓	157	12:30:40	SELECT DISTINCT cname FROM class WHERE room='room128' OR cname IN (SELECT e.cname FROM enr...	1 row(s) returned	0.000 sec / 0.000 sec
✓	158	12:34:27	SELECT f.fname,f.fid FROM faculty f WHERE f.fid in (SELECT fid FROM class GROUP BY fid HAVING C...	1 row(s) returned	0.000 sec / 0.000 sec
✗	159	12:45:08	SELECT S.age, S.lvl FROM Student S GROUP BY S.age, S.lvl HAVING S.lvl IN (SELECT S1.lvl FROM Stude...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL se...	0.000 sec
✗	160	12:48:22	SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.slevel IN (SELECT S1.sl...	Error Code: 1054. Unknown column 'S.slevel' in 'field list'	0.000 sec
✗	161	12:48:33	SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.slevel IN (SELECT S1.sl...	Error Code: 1054. Unknown column 'S.slevel' in 'field list'	0.000 sec
✗	162	12:49:31	SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.lvl IN (SELECT S1.lvl FR...	Error Code: 1054. Unknown column 'S.slevel' in 'field list'	0.000 sec
✓	163	12:49:52	SELECT S.age, S.lvl FROM STUDENT S GROUP BY S.age, S.lvl HAVING S.lvl IN (SELECT S1.lvl FROM ST...	3 row(s) returned	0.000 sec / 0.000 sec
✓	164	12:56:04	select * from STUDENT LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

Query Completed

INSERT INTO FACULTY VALUES(11, 'Harish', 1000);

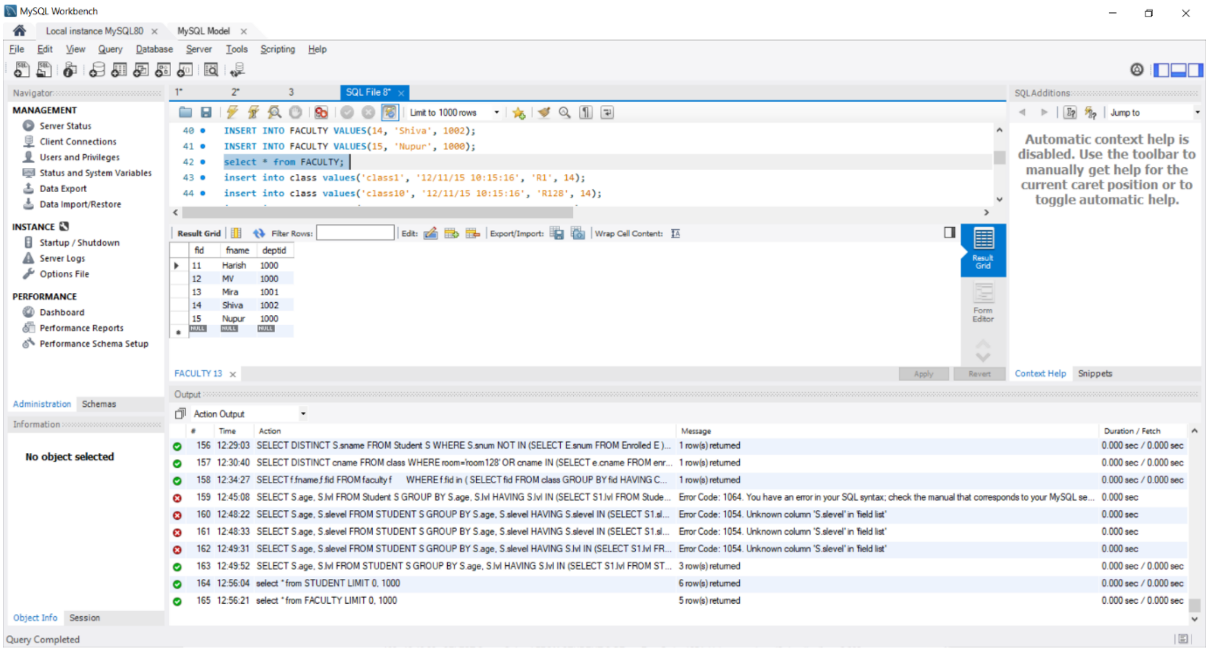
INSERT INTO FACULTY VALUES(12, 'MV', 1000);

INSERT INTO FACULTY VALUES(13 , 'Mira', 1001);

INSERT INTO FACULTY VALUES(14, 'Shiva', 1002);

INSERT INTO FACULTY VALUES(15, 'Nupur', 1000);

select * from FACULTY;



```
INSERT INTO FACULTY VALUES(14, 'Shiva', 1002);
INSERT INTO FACULTY VALUES(15, 'Nupur', 1000);
select * from FACULTY;
insert into class values('class1', '12/11/15 10:15:16', 'R1', 14);
insert into class values('class10', '12/11/15 10:15:16', 'R128', 14);
```

fid	fname	deptid
11	Harish	1000
12	MV	1000
13	Mira	1001
14	Shiva	1002
15	Nupur	1000
NULL	NULL	NULL

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

```
#    Time      Action                                                                                   Message                                                                              Duration / Fetch
156  12:29:03  SELECT DISTINCT S.sname FROM Student S WHERE S.snum NOT IN (SELECT E.snum FROM Enrolled E )...  1 row(s) returned                                                              0.000 sec / 0.000 sec
157  12:30:40  SELECT DISTINCT cname FROM class WHERE room='room128' OR cname IN (SELECT e.cname FROM enr...   1 row(s) returned                                                              0.000 sec / 0.000 sec
158  12:34:27  SELECT f.fname,f.fid FROM faculty f     WHERE f.fid in ( SELECT fid FROM class GROUP BY fid HAVING C...  1 row(s) returned                                                0.000 sec / 0.000 sec
159  12:45:08  SELECT S.age, S.lvl FROM Student S GROUP BY S.age, S.lvl HAVING S.lvl IN (SELECT S1.lvl FROM Stude...  Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL se...  0.000 sec
160  12:48:22  SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.slevel IN (SELECT S1.sl...  Error Code: 1054. Unknown column 'S.slevel' in 'field list'                        0.000 sec
161  12:48:33  SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.slevel IN (SELECT S1.sl...  Error Code: 1054. Unknown column 'S.slevel' in 'field list'                        0.000 sec
162  12:49:31  SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.lvl IN (SELECT S1.lvl FR...  Error Code: 1054. Unknown column 'S.slevel' in 'field list'                        0.000 sec
163  12:49:52  SELECT S.age, S.lvl FROM STUDENT S GROUP BY S.age, S.lvl HAVING S.lvl IN (SELECT S1.lvl FROM ST...   3 row(s) returned                                                              0.000 sec / 0.000 sec
164  12:56:04  select * from STUDENT LIMIT 0, 1000                                                        6 row(s) returned                                                              0.000 sec / 0.000 sec
165  12:56:21  select * from FACULTY LIMIT 0, 1000                                                        5 row(s) returned                                                              0.000 sec / 0.000 sec
```

No object selected

Query Completed

insert into class values('class1', '12/11/15 10:15:16', 'R1', 14);

insert into class values('class10', '12/11/15 10:15:16', 'R128', 14);

insert into class values('class2', '12/11/15 10:15:20', 'R2', 12);

insert into class values('class3', '12/11/15 10:15:25', 'R3', 11);

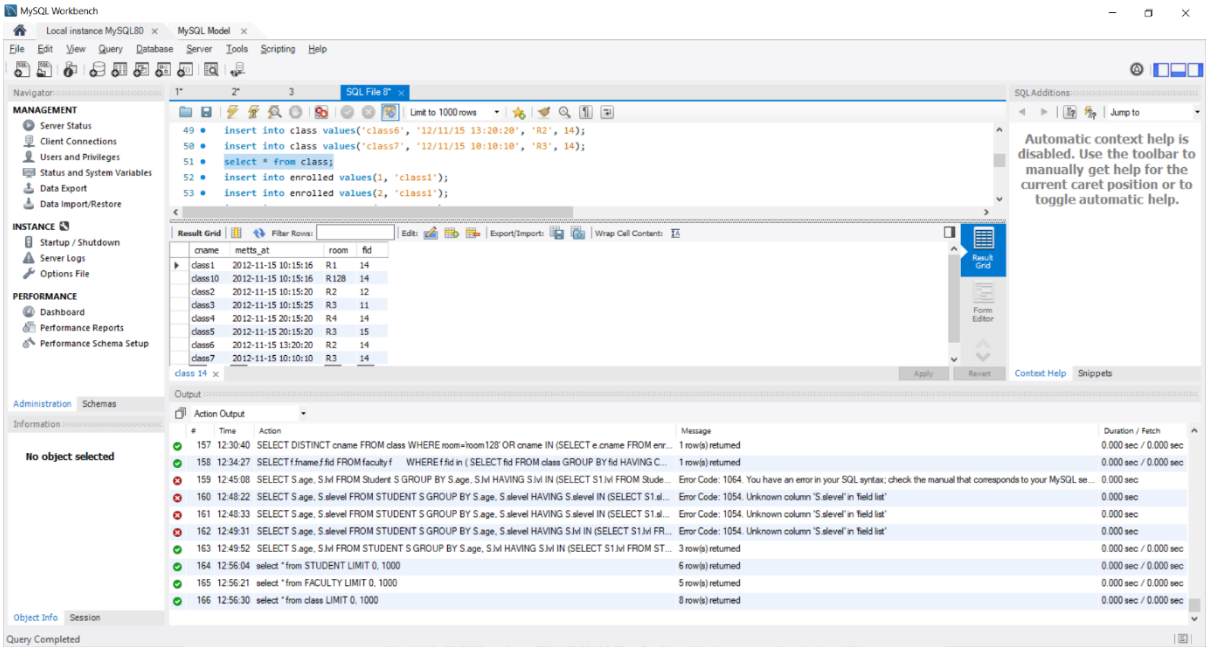
insert into class values('class4', '12/11/15 20:15:20', 'R4', 14);

insert into class values('class5', '12/11/15 20:15:20', 'R3', 15);

insert into class values('class6', '12/11/15 13:20:20', 'R2', 14);

insert into class values('class7', '12/11/15 10:10:10', 'R3', 14);

select * from class;



```
insert into class values('class6', '12/11/15 13:20:20', 'R2', 14);
insert into class values('class7', '12/11/15 10:10:10', 'R3', 14);
select * from class;
insert into enrolled values(1, 'class1');
insert into enrolled values(2, 'class1');
```

cname	metts_at	room	fid
class1	2012-11-15 10:15:16	R1	14
class10	2012-11-15 10:15:16	R128	14
class2	2012-11-15 10:15:20	R2	12
class3	2012-11-15 10:15:25	R3	11
class4	2012-11-15 20:15:20	R4	14
class5	2012-11-15 20:15:20	R3	15
class6	2012-11-15 13:20:20	R2	14
class7	2012-11-15 10:10:10	R3	14

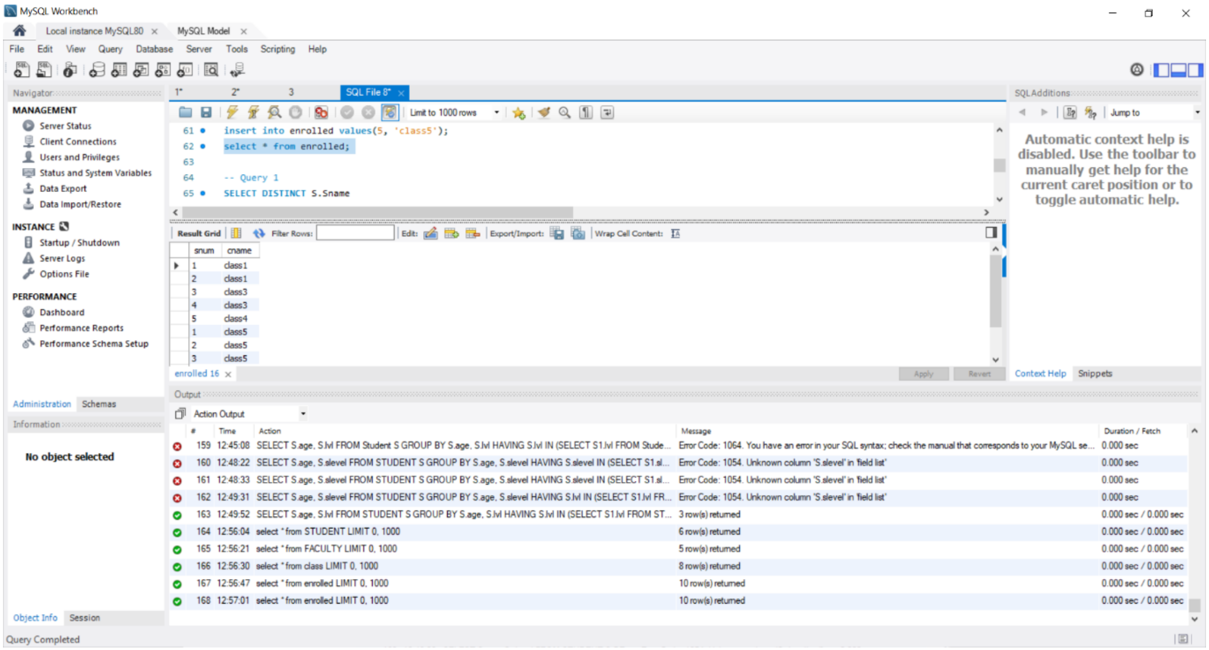
Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

No object selected

	#	Time	Action	Message	Duration / Fetch
✓	157	12:30:40	SELECT DISTINCT cname FROM class WHERE room='room128' OR cname IN (SELECT e.cname FROM enr...	1 row(s) returned	0.000 sec / 0.000 sec
✓	158	12:34:27	SELECT f.fname,f.fid FROM faculty f WHERE f.fid in (SELECT fid FROM class GROUP BY fid HAVING C...	1 row(s) returned	0.000 sec / 0.000 sec
✕	159	12:45:08	SELECT S.age, S.lvl FROM Student S GROUP BY S.age, S.lvl HAVING S.lvl IN (SELECT S1.lvl FROM Stude...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL se...	0.000 sec
✕	160	12:48:22	SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.slevel IN (SELECT S1.sl...	Error Code: 1054. Unknown column 'S.slevel' in 'field list'	0.000 sec
✕	161	12:48:33	SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.slevel IN (SELECT S1.sl...	Error Code: 1054. Unknown column 'S.slevel' in 'field list'	0.000 sec
✕	162	12:49:31	SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.lvl IN (SELECT S1.lvl FR...	Error Code: 1054. Unknown column 'S.slevel' in 'field list'	0.000 sec
✓	163	12:49:52	SELECT S.age, S.lvl FROM STUDENT S GROUP BY S.age, S.lvl HAVING S.lvl IN (SELECT S1.lvl FROM ST...	3 row(s) returned	0.000 sec / 0.000 sec
✓	164	12:56:04	select * from STUDENT LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
✓	165	12:56:21	select * from FACULTY LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
✓	166	12:56:30	select * from class LIMIT 0, 1000	8 row(s) returned	0.000 sec / 0.000 sec

Query Completed

```
insert into enrolled values(1, 'class1');

insert into enrolled values(2, 'class1');

insert into enrolled values(3, 'class3');

insert into enrolled values(4, 'class3');

insert into enrolled values(5, 'class4');

insert into enrolled values(1, 'class5');

insert into enrolled values(2, 'class5');

insert into enrolled values(3, 'class5');

insert into enrolled values(4, 'class5');

insert into enrolled values(5, 'class5');

select * from enrolled;
```



```
insert into enrolled values(5, 'class5');
select * from enrolled;

-- Query 1
SELECT DISTINCT S.Sname
```

snum	cname
1	class1
2	class1
3	class3
4	class3
5	class4
1	class5
2	class5
3	class5

```
#    Time      Action                                                                        Message                                                                                 Duration / Fetch
159  12:45:08  SELECT S.age, S.lvl FROM Student S GROUP BY S.age, S.lvl HAVING S.lvl IN (SELECT S1.lvl FROM Stude...  Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL se...  0.000 sec
160  12:48:22  SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.slevel IN (SELECT S1.sl...  Error Code: 1054. Unknown column 'S.slevel' in 'field list'  0.000 sec
161  12:48:33  SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.slevel IN (SELECT S1.sl...  Error Code: 1054. Unknown column 'S.slevel' in 'field list'  0.000 sec
162  12:49:31  SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.lvl IN (SELECT S1.lvl FR...  Error Code: 1054. Unknown column 'S.slevel' in 'field list'  0.000 sec
163  12:49:52  SELECT S.age, S.lvl FROM STUDENT S GROUP BY S.age, S.lvl HAVING S.lvl IN (SELECT S1.lvl FROM ST...  3 row(s) returned   0.000 sec / 0.000 sec
164  12:56:04  select * from STUDENT LIMIT 0, 1000     6 row(s) returned   0.000 sec / 0.000 sec
165  12:56:21  select * from FACULTY LIMIT 0, 1000     5 row(s) returned   0.000 sec / 0.000 sec
166  12:56:30  select * from class LIMIT 0, 1000       8 row(s) returned   0.000 sec / 0.000 sec
167  12:56:47  select * from enrolled LIMIT 0, 1000    10 row(s) returned  0.000 sec / 0.000 sec
168  12:57:01  select * from enrolled LIMIT 0, 1000    10 row(s) returned  0.000 sec / 0.000 sec
```

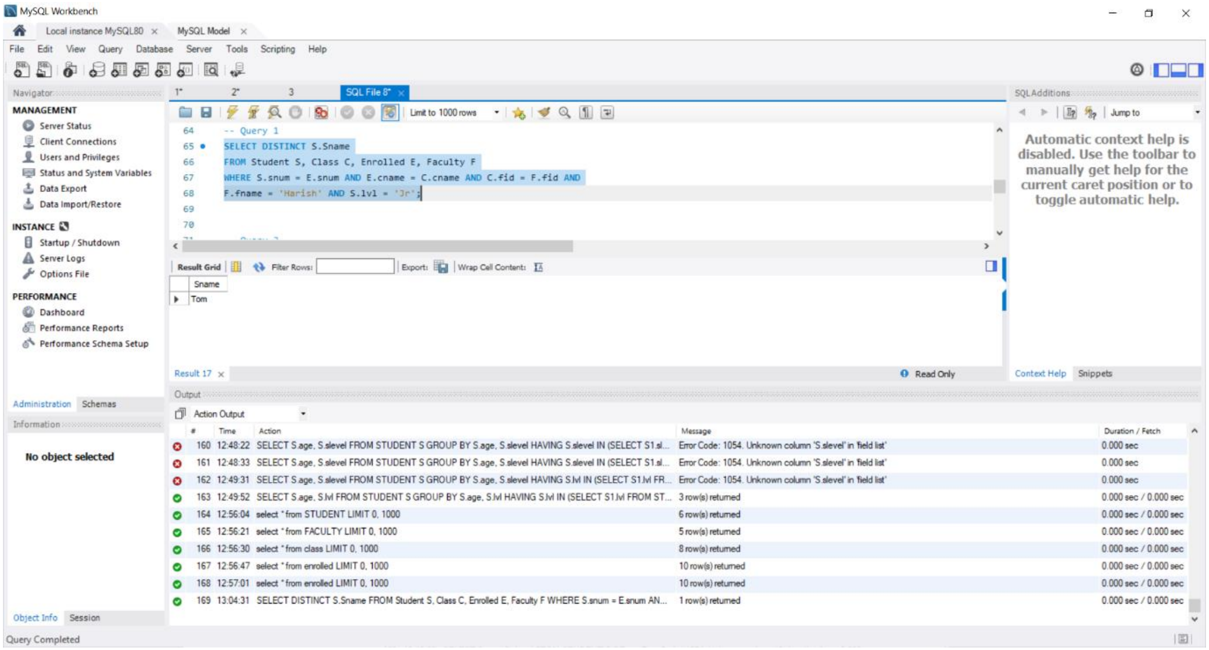
<u>-- Query 1</u>

SELECT DISTINCT S.Sname

FROM Student S, Class C, Enrolled E, Faculty F

WHERE S.snum = E.snum AND E.cname = C.cname AND C.fid = F.fid AND

F.fname = 'Harish' AND S.lvl = 'Jr';



```
-- Query 1
SELECT DISTINCT S.Sname
FROM Student S, Class C, Enrolled E, Faculty F
WHERE S.snum = E.snum AND E.cname = C.cname AND C.fid = F.fid AND
F.fname = 'Harish' AND S.lvl = 'Jr';
```

Sname
Tom

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

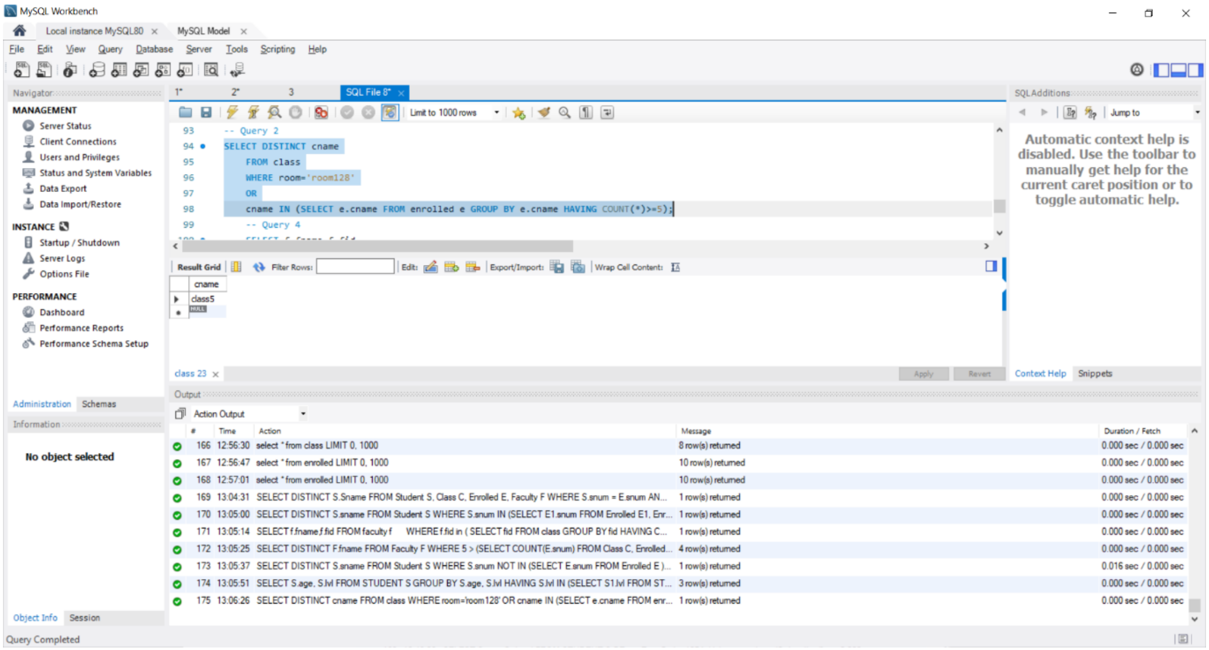
No object selected

#	Time	Action	Message	Duration / Fetch
160	12:48:22	SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.slevel IN (SELECT S1.sl...	Error Code: 1054. Unknown column 'S.slevel' in 'field list'	0.000 sec
161	12:48:33	SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.slevel IN (SELECT S1.sl...	Error Code: 1054. Unknown column 'S.slevel' in 'field list'	0.000 sec
162	12:49:31	SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.lvl IN (SELECT S1.lvl FR...	Error Code: 1054. Unknown column 'S.slevel' in 'field list'	0.000 sec
163	12:49:52	SELECT S.age, S.lvl FROM STUDENT S GROUP BY S.age, S.lvl HAVING S.lvl IN (SELECT S1.lvl FROM ST...	3 row(s) returned	0.000 sec / 0.000 sec
164	12:56:04	select * from STUDENT LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
165	12:56:21	select * from FACULTY LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
166	12:56:30	select * from class LIMIT 0, 1000	8 row(s) returned	0.000 sec / 0.000 sec
167	12:56:47	select * from enrolled LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
168	12:57:01	select * from enrolled LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
169	13:04:31	SELECT DISTINCT S.Sname FROM Student S, Class C, Enrolled E, Faculty F WHERE S.snum = E.snum AN...	1 row(s) returned	0.000 sec / 0.000 sec

Query Completed

-- Query 2

```
SELECT DISTINCT cname
        FROM class
        WHERE room='room128'
        OR
        cname IN (SELECT e.cname FROM enrolled e GROUP BY e.cname HAVING COUNT(*)>=5);
```



```
-- Query 2
SELECT DISTINCT cname
    FROM class
    WHERE room='room128'
    OR
    cname IN (SELECT e.cname FROM enrolled e GROUP BY e.cname HAVING COUNT(*)>=5);
    -- Query 4
```

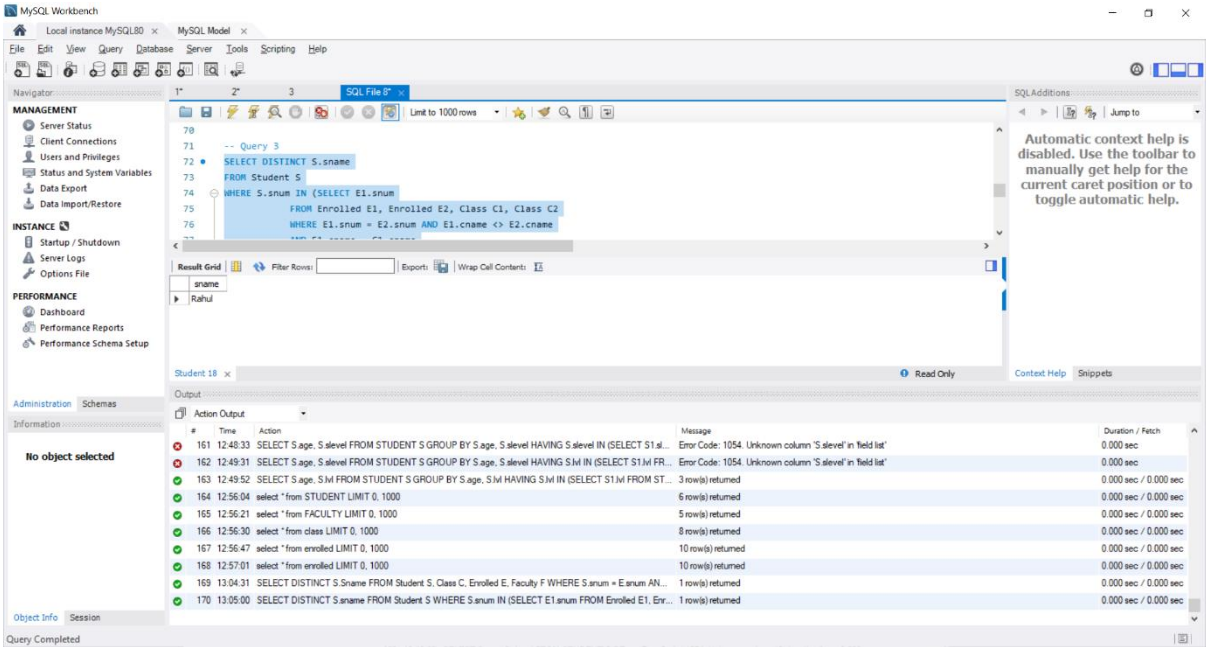
	cname
▶	class5
*	NULL

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

	#	Time	Action	Message	Duration / Fetch
✓	166	12:56:30	select * from class LIMIT 0, 1000	8 row(s) returned	0.000 sec / 0.000 sec
✓	167	12:56:47	select * from enrolled LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
✓	168	12:57:01	select * from enrolled LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
✓	169	13:04:31	SELECT DISTINCT S.Sname FROM Student S, Class C, Enrolled E, Faculty F WHERE S.snum = E.snum AN...	1 row(s) returned	0.000 sec / 0.000 sec
✓	170	13:05:00	SELECT DISTINCT S.sname FROM Student S WHERE S.snum IN (SELECT E1.snum FROM Enrolled E1, Enr...	1 row(s) returned	0.000 sec / 0.000 sec
✓	171	13:05:14	SELECT f.fname,f.fid FROM faculty f WHERE f.fid in (SELECT fid FROM class GROUP BY fid HAVING C...	1 row(s) returned	0.000 sec / 0.000 sec
✓	172	13:05:25	SELECT DISTINCT F.fname FROM Faculty F WHERE 5 > (SELECT COUNT(E.snum) FROM Class C, Enrolled...	4 row(s) returned	0.000 sec / 0.000 sec
✓	173	13:05:37	SELECT DISTINCT S.sname FROM Student S WHERE S.snum NOT IN (SELECT E.snum FROM Enrolled E)...	1 row(s) returned	0.016 sec / 0.000 sec
✓	174	13:05:51	SELECT S.age, S.lvl FROM STUDENT S GROUP BY S.age, S.lvl HAVING S.lvl IN (SELECT S1.lvl FROM ST...	3 row(s) returned	0.000 sec / 0.000 sec
✓	175	13:06:26	SELECT DISTINCT cname FROM class WHERE room='room128' OR cname IN (SELECT e.cname FROM enr...	1 row(s) returned	0.000 sec / 0.000 sec

<u>-- Query 3</u>

```
SELECT DISTINCT S.sname
FROM Student S
WHERE S.snum IN (SELECT E1.snum
                                 FROM Enrolled E1, Enrolled E2, Class C1, Class C2
                                 WHERE E1.snum = E2.snum AND E1.cname <> E2.cname
                                 AND E1.cname = C1.cname
                                 AND E2.cname = C2.cname AND C1.metts_at = C2.metts_at);
```



```
-- Query 3
SELECT DISTINCT S.sname
FROM Student S
WHERE S.snum IN (SELECT E1.snum
            FROM Enrolled E1, Enrolled E2, Class C1, Class C2
            WHERE E1.snum = E2.snum AND E1.cname <> E2.cname
```

	sname
▶	Rahul

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

No object selected

	#	Time	Action	Message	Duration / Fetch
✖	161	12:48:33	SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.slevel IN (SELECT S1.sl...	Error Code: 1054. Unknown column 'S.slevel' in 'field list'	0.000 sec
✖	162	12:49:31	SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.lvl IN (SELECT S1.lvl FR...	Error Code: 1054. Unknown column 'S.slevel' in 'field list'	0.000 sec
✓	163	12:49:52	SELECT S.age, S.lvl FROM STUDENT S GROUP BY S.age, S.lvl HAVING S.lvl IN (SELECT S1.lvl FROM ST...	3 row(s) returned	0.000 sec / 0.000 sec
✓	164	12:56:04	select * from STUDENT LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
✓	165	12:56:21	select * from FACULTY LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
✓	166	12:56:30	select * from class LIMIT 0, 1000	8 row(s) returned	0.000 sec / 0.000 sec
✓	167	12:56:47	select * from enrolled LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
✓	168	12:57:01	select * from enrolled LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
✓	169	13:04:31	SELECT DISTINCT S.Sname FROM Student S, Class C, Enrolled E, Faculty F WHERE S.snum = E.snum AN...	1 row(s) returned	0.000 sec / 0.000 sec
✓	170	13:05:00	SELECT DISTINCT S.sname FROM Student S WHERE S.snum IN (SELECT E1.snum FROM Enrolled E1, Enr...	1 row(s) returned	0.000 sec / 0.000 sec

Query Completed

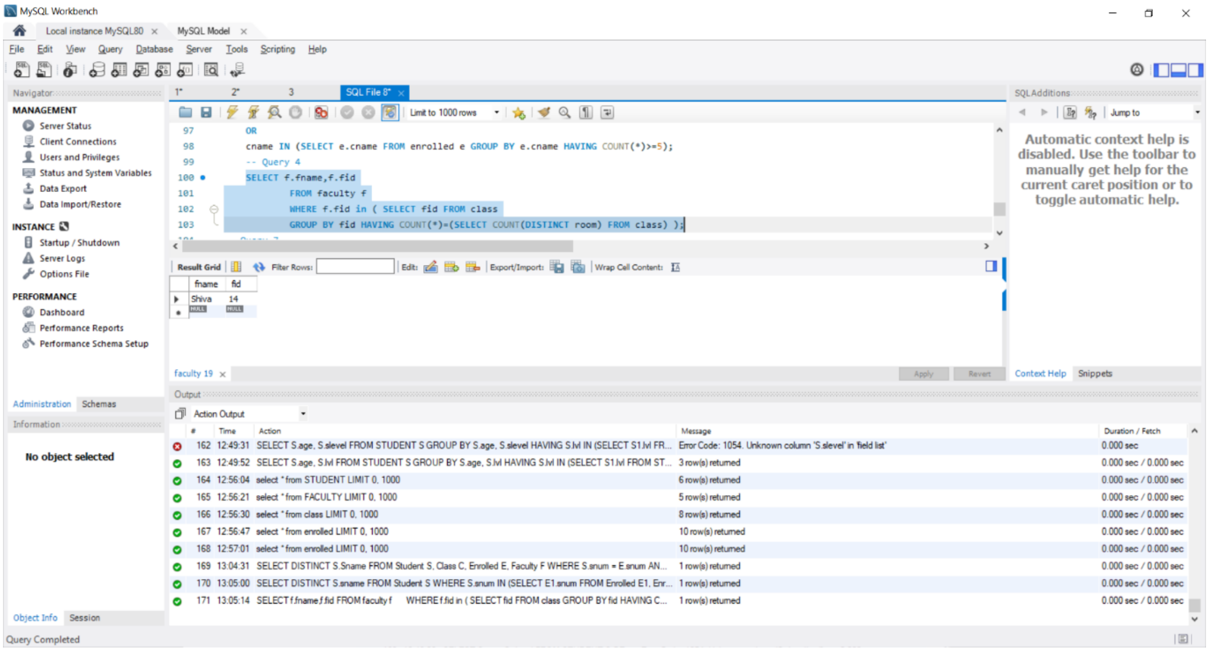
-- Query 4

SELECT f.fname,f.fid

FROM faculty f

WHERE f.fid in (SELECT fid FROM class

GROUP BY fid HAVING COUNT(*)=(SELECT COUNT(DISTINCT room) FROM class));



```
    OR
    cname IN (SELECT e.cname FROM enrolled e GROUP BY e.cname HAVING COUNT(*)>=5);
    -- Query 4
    SELECT f.fname,f.fid
        FROM faculty f
        WHERE f.fid in ( SELECT fid FROM class
        GROUP BY fid HAVING COUNT(*)=(SELECT COUNT(DISTINCT room) FROM class) );
```

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

	fname	fid
▶	Shiva	14
*	NULL	NULL

	#	Time	Action	Message	Duration / Fetch
✗	162	12:49:31	SELECT S.age, S.slevel FROM STUDENT S GROUP BY S.age, S.slevel HAVING S.lvl IN (SELECT S1.lvl FR...	Error Code: 1054. Unknown column 'S.slevel' in 'field list'	0.000 sec
✓	163	12:49:52	SELECT S.age, S.lvl FROM STUDENT S GROUP BY S.age, S.lvl HAVING S.lvl IN (SELECT S1.lvl FROM ST...	3 row(s) returned	0.000 sec / 0.000 sec
✓	164	12:56:04	select * from STUDENT LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
✓	165	12:56:21	select * from FACULTY LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
✓	166	12:56:30	select * from class LIMIT 0, 1000	8 row(s) returned	0.000 sec / 0.000 sec
✓	167	12:56:47	select * from enrolled LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
✓	168	12:57:01	select * from enrolled LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
✓	169	13:04:31	SELECT DISTINCT S.Sname FROM Student S, Class C, Enrolled E, Faculty F WHERE S.snum = E.snum AN...	1 row(s) returned	0.000 sec / 0.000 sec
✓	170	13:05:00	SELECT DISTINCT S.sname FROM Student S WHERE S.snum IN (SELECT E1.snum FROM Enrolled E1, Enr...	1 row(s) returned	0.000 sec / 0.000 sec
✓	171	13:05:14	SELECT f.fname,f.fid FROM faculty f WHERE f.fid in (SELECT fid FROM class GROUP BY fid HAVING C...	1 row(s) returned	0.000 sec / 0.000 sec

-- Query 5

SELECT DISTINCT F.fname

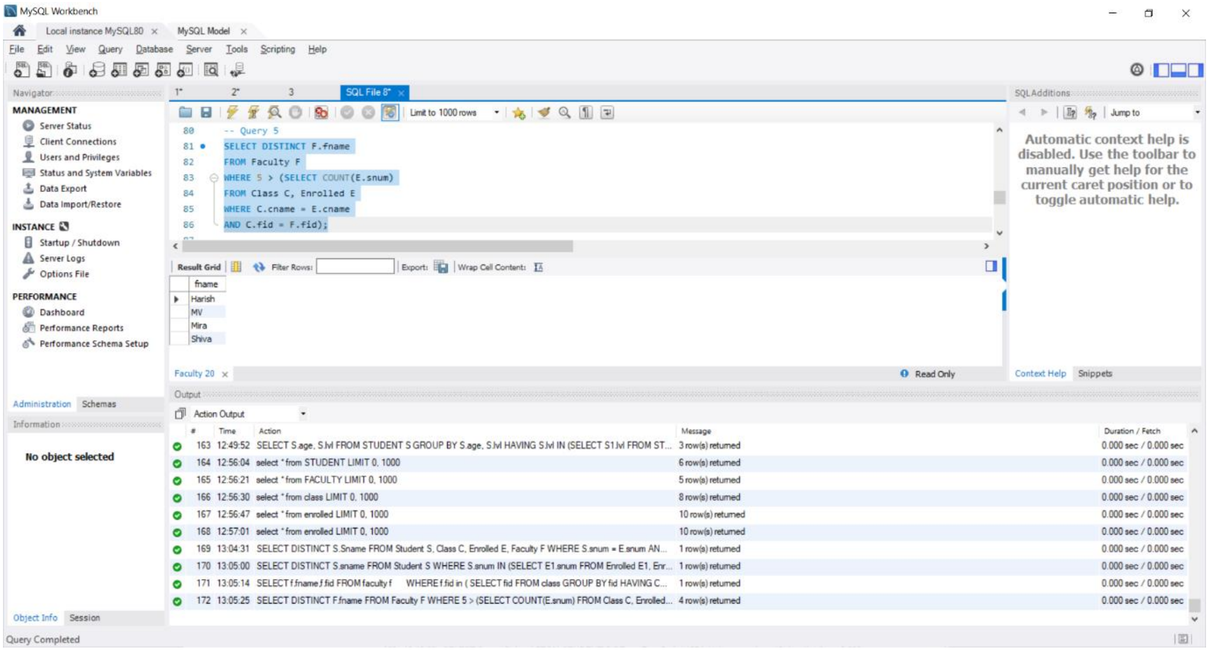
FROM Faculty F

WHERE 5 > (SELECT COUNT(E.snum)

FROM Class C, Enrolled E

WHERE C.cname = E.cname

AND C.fid = F.fid);



```
-- Query 5
SELECT DISTINCT F.fname
FROM Faculty F
WHERE 5 > (SELECT COUNT(E.snum)
FROM Class C, Enrolled E
WHERE C.cname = E.cname
AND C.fid = F.fid);
```

fname
Harish
MV
Mira
Shiva

```
#    Time      Action                                                                                       Message            Duration / Fetch
163  12:49:52  SELECT S.age, S.lvl FROM STUDENT S GROUP BY S.age, S.lvl HAVING S.lvl IN (SELECT S1.lvl FROM ST...  3 row(s) returned   0.000 sec / 0.000 sec
164  12:56:04  select * from STUDENT LIMIT 0, 1000                                                          6 row(s) returned   0.000 sec / 0.000 sec
165  12:56:21  select * from FACULTY LIMIT 0, 1000                                                          5 row(s) returned   0.000 sec / 0.000 sec
166  12:56:30  select * from class LIMIT 0, 1000                                                            8 row(s) returned   0.000 sec / 0.000 sec
167  12:56:47  select * from enrolled LIMIT 0, 1000                                                         10 row(s) returned  0.000 sec / 0.000 sec
168  12:57:01  select * from enrolled LIMIT 0, 1000                                                         10 row(s) returned  0.000 sec / 0.000 sec
169  13:04:31  SELECT DISTINCT S.Sname FROM Student S, Class C, Enrolled E, Faculty F WHERE S.snum = E.snum AN...  1 row(s) returned   0.000 sec / 0.000 sec
170  13:05:00  SELECT DISTINCT S.sname FROM Student S WHERE S.snum IN (SELECT E1.snum FROM Enrolled E1, Enr...  1 row(s) returned   0.000 sec / 0.000 sec
171  13:05:14  SELECT f.fname,f.fid FROM faculty f      WHERE f.fid in ( SELECT fid FROM class GROUP BY fid HAVING C...  1 row(s) returned   0.000 sec / 0.000 sec
172  13:05:25  SELECT DISTINCT F.fname FROM Facuty F WHERE 5 > (SELECT COUNT(E.snum) FROM Class C, Enrolled...  4 row(s) returned   0.000 sec / 0.000 sec
```

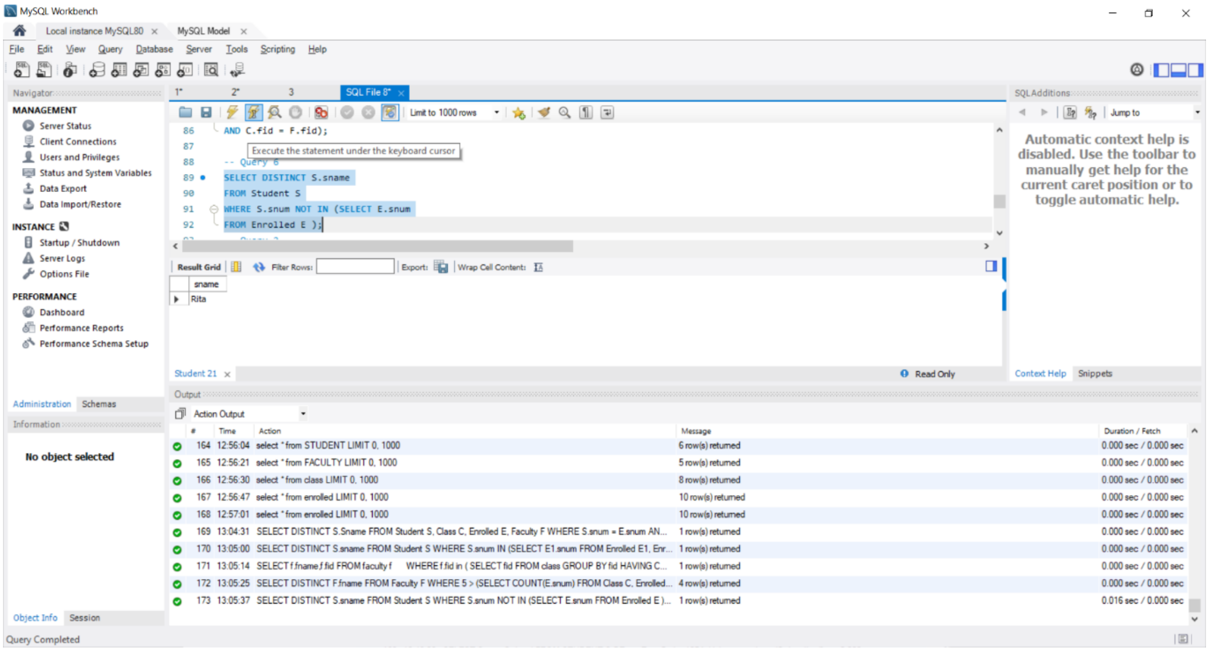
-- Query 6

SELECT DISTINCT S.sname

FROM Student S

WHERE S.snum NOT IN (SELECT E.snum

FROM Enrolled E);



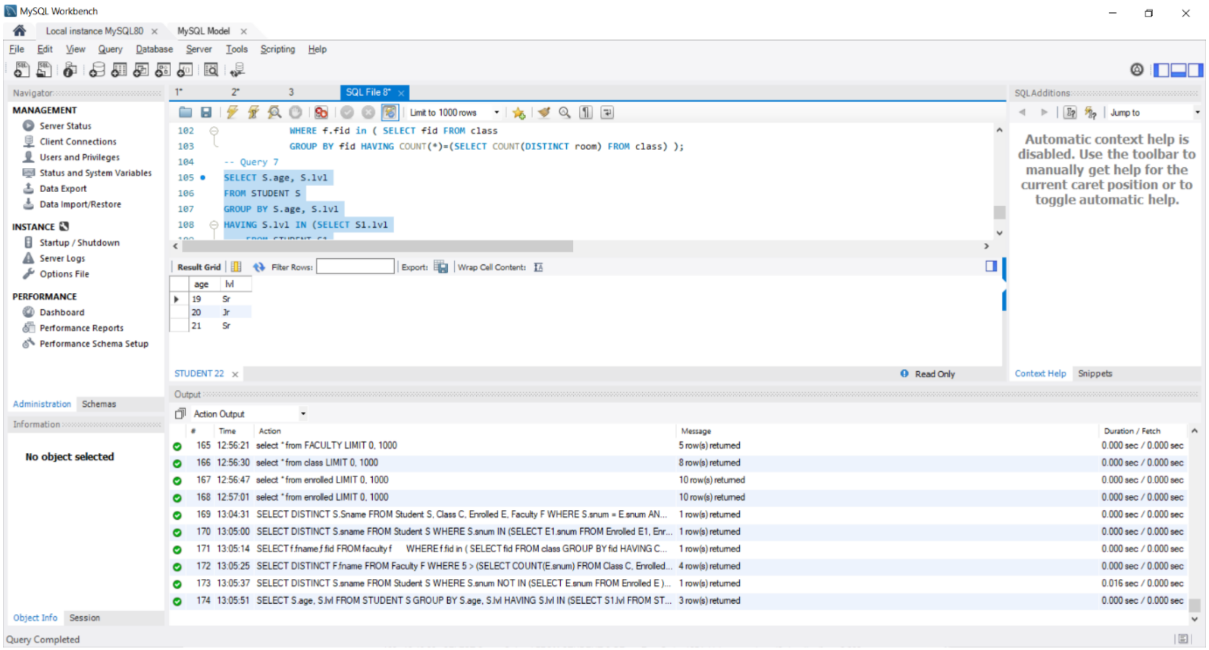
```
AND C.fid = F.fid);

-- Query 6
SELECT DISTINCT S.sname
FROM Student S
WHERE S.snum NOT IN (SELECT E.snum
FROM Enrolled E );
```

sname
Rita

```
     #    Time      Action                                                                                      Message            Duration / Fetch
     164  12:56:04  select * from STUDENT LIMIT 0, 1000                                                         6 row(s) returned  0.000 sec / 0.000 sec
     165  12:56:21  select * from FACULTY LIMIT 0, 1000                                                         5 row(s) returned  0.000 sec / 0.000 sec
     166  12:56:30  select * from class LIMIT 0, 1000                                                           8 row(s) returned  0.000 sec / 0.000 sec
     167  12:56:47  select * from enrolled LIMIT 0, 1000                                                        10 row(s) returned 0.000 sec / 0.000 sec
     168  12:57:01  select * from enrolled LIMIT 0, 1000                                                        10 row(s) returned 0.000 sec / 0.000 sec
     169  13:04:31  SELECT DISTINCT S.Sname FROM Student S, Class C, Enrolled E, Faculty F WHERE S.snum = E.snum AN...  1 row(s) returned  0.000 sec / 0.000 sec
     170  13:05:00  SELECT DISTINCT S.sname FROM Student S WHERE S.snum IN (SELECT E1.snum FROM Enrolled E1, Enr...     1 row(s) returned  0.000 sec / 0.000 sec
     171  13:05:14  SELECT f.fname,f.fid FROM faculty f      WHERE f.fid in ( SELECT fid FROM class GROUP BY fid HAVING C...  1 row(s) returned  0.000 sec / 0.000 sec
     172  13:05:25  SELECT DISTINCT F.fname FROM Faculty F WHERE 5 > (SELECT COUNT(E.snum) FROM Class C, Enrolled...    4 row(s) returned  0.000 sec / 0.000 sec
     173  13:05:37  SELECT DISTINCT S.sname FROM Student S WHERE S.snum NOT IN (SELECT E.snum FROM Enrolled E )...      1 row(s) returned  0.016 sec / 0.000 sec
```

-- Query 7

```
SELECT S.age, S.lvl

FROM STUDENT S

GROUP BY S.age, S.lvl

HAVING S.lvl IN (SELECT S1.lvl

          FROM STUDENT S1

          WHERE S1.age=S.age

          GROUP BY S1.age, S1.lvl

          HAVING COUNT(*) >= ALL (SELECT COUNT(*)

                    FROM STUDENT S2

                    WHERE S1.age=S2.age

                    GROUP BY S2.lvl, S2.age))

ORDER BY S.age;
```



```
                WHERE f.fid in ( SELECT fid FROM class
                GROUP BY fid HAVING COUNT(*)=(SELECT COUNT(DISTINCT room) FROM class) );
-- Query 7
SELECT S.age, S.lvl
FROM STUDENT S
GROUP BY S.age, S.lvl
HAVING S.lvl IN (SELECT S1.lvl
```

age	lvl
19	Sr
20	Jr
21	Sr

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

```
#    Time      Action                                                                                      Message             Duration / Fetch
165  12:56:21  select * from FACULTY LIMIT 0, 1000                                                         5 row(s) returned   0.000 sec / 0.000 sec
166  12:56:30  select * from class LIMIT 0, 1000                                                           8 row(s) returned   0.000 sec / 0.000 sec
167  12:56:47  select * from enrolled LIMIT 0, 1000                                                        10 row(s) returned  0.000 sec / 0.000 sec
168  12:57:01  select * from enrolled LIMIT 0, 1000                                                        10 row(s) returned  0.000 sec / 0.000 sec
169  13:04:31  SELECT DISTINCT S.Sname FROM Student S, Class C, Enrolled E, Faculty F WHERE S.snum = E.snum AN...  1 row(s) returned   0.000 sec / 0.000 sec
170  13:05:00  SELECT DISTINCT S.sname FROM Student S WHERE S.snum IN (SELECT E1.snum FROM Enrolled E1, Enr...  1 row(s) returned   0.000 sec / 0.000 sec
171  13:05:14  SELECT f.fname,f.fid FROM faculty f      WHERE f.fid in ( SELECT fid FROM class GROUP BY fid HAVING C...  1 row(s) returned   0.000 sec / 0.000 sec
172  13:05:25  SELECT DISTINCT F.fname FROM Faculty F WHERE 5 > (SELECT COUNT(E.snum) FROM Class C, Enrolled...  4 row(s) returned   0.000 sec / 0.000 sec
173  13:05:37  SELECT DISTINCT S.sname FROM Student S WHERE S.snum NOT IN (SELECT E.snum FROM Enrolled E )...  1 row(s) returned   0.016 sec / 0.000 sec
174  13:05:51  SELECT S.age, S.lvl FROM STUDENT S GROUP BY S.age, S.lvl HAVING S.lvl IN (SELECT S1.lvl FROM ST...  3 row(s) returned   0.000 sec / 0.000 sec
```