

```

CREATE TABLE student(

snum INT,

sname VARCHAR(10),

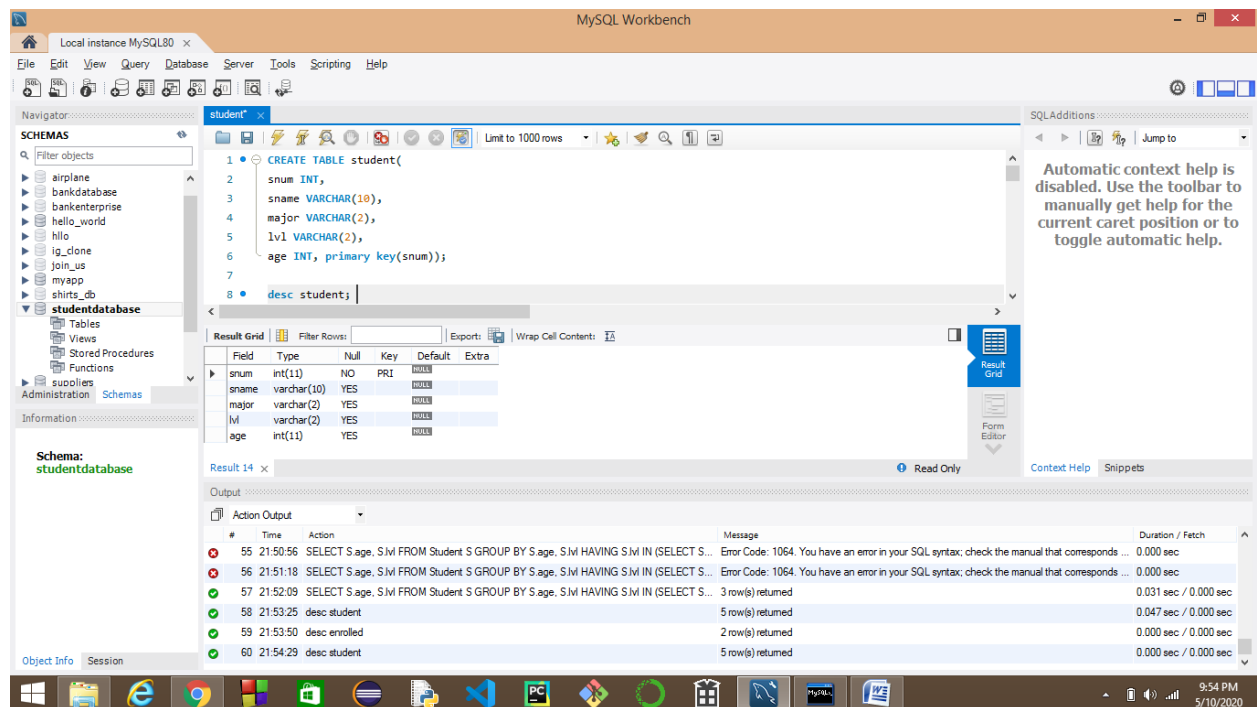
major VARCHAR(2),

lvl VARCHAR(2),

age INT, primary key(snum));

desc student;

```



```

CREATE TABLE faculty(

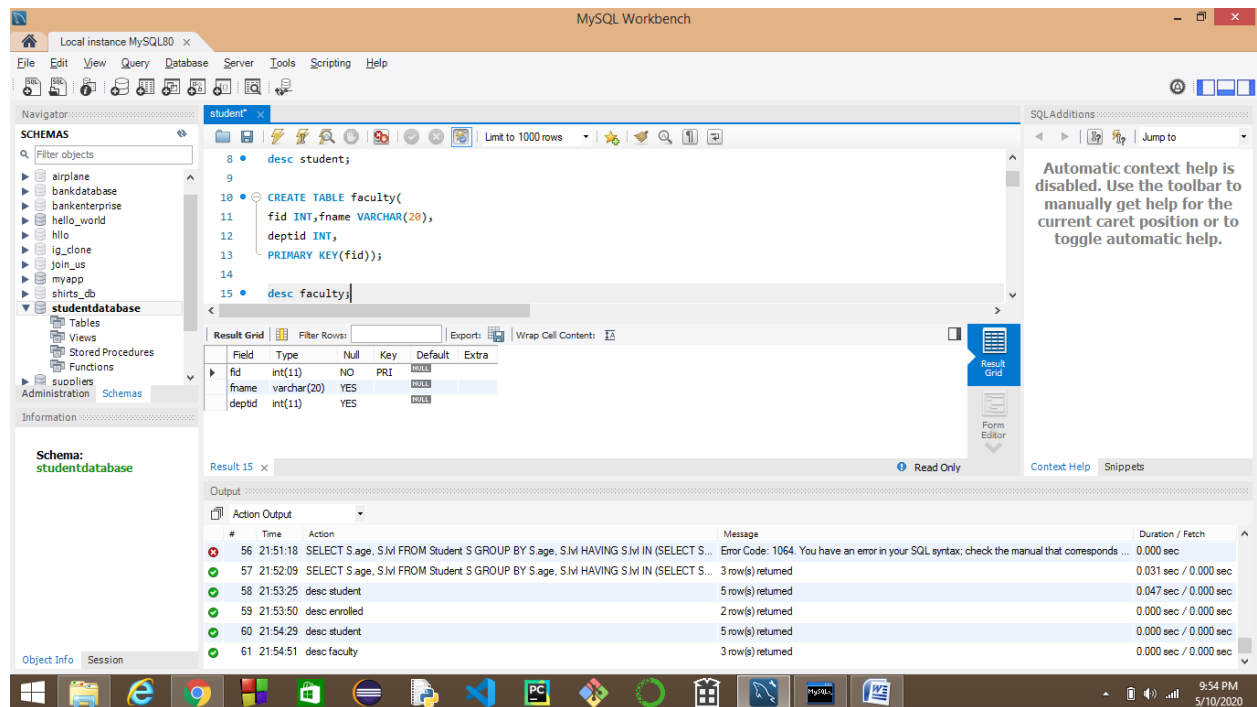
fid INT,fname VARCHAR(20),

deptid INT,

PRIMARY KEY(fid));

desc faculty;

```

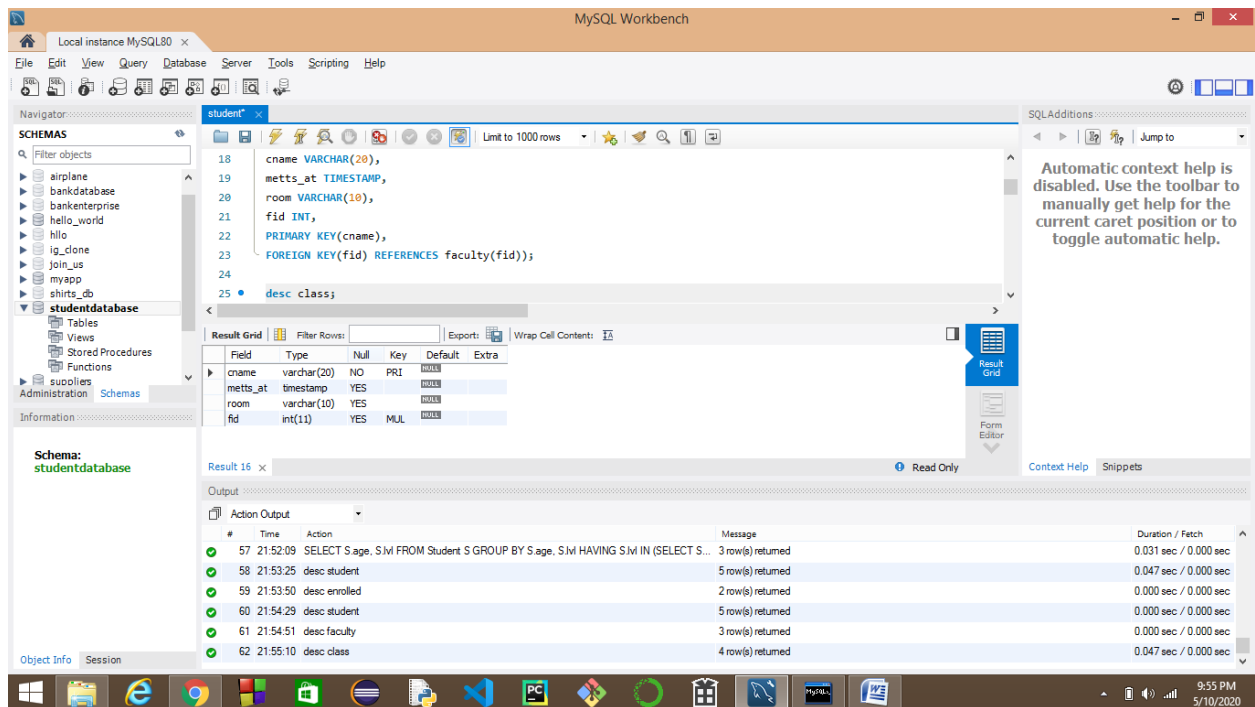


```

CREATE TABLE class(
cname VARCHAR(20),
metts_at TIMESTAMP,
room VARCHAR(10),
fid INT,
PRIMARY KEY(cname),
FOREIGN KEY(fid) REFERENCES faculty(fid));

desc class;

```

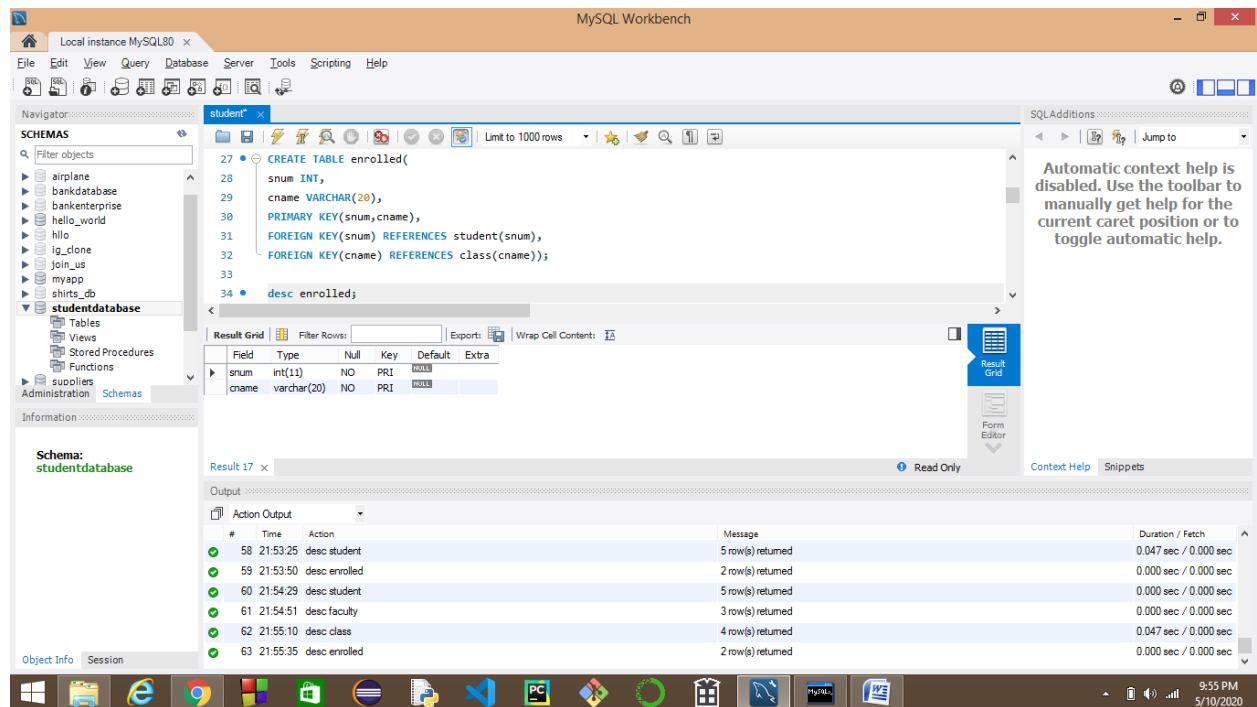


```

CREATE TABLE enrolled(
snum INT,
cname VARCHAR(20),
PRIMARY KEY(snum,cname),
FOREIGN KEY(snum) REFERENCES student(snum),
FOREIGN KEY(cname) REFERENCES class(cname));

desc enrolled;

```



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

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

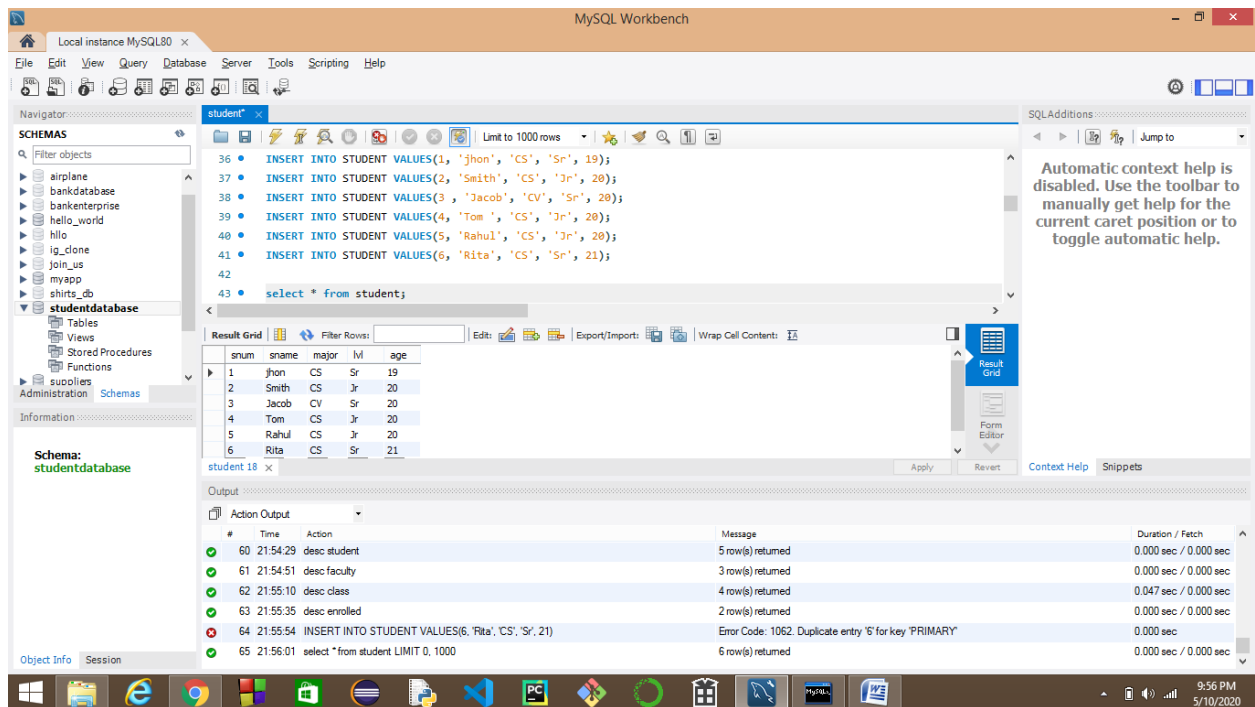
INSERT INTO STUDENT VALUES(3, 'Jacob', 'CV', 'Sr', 20);

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

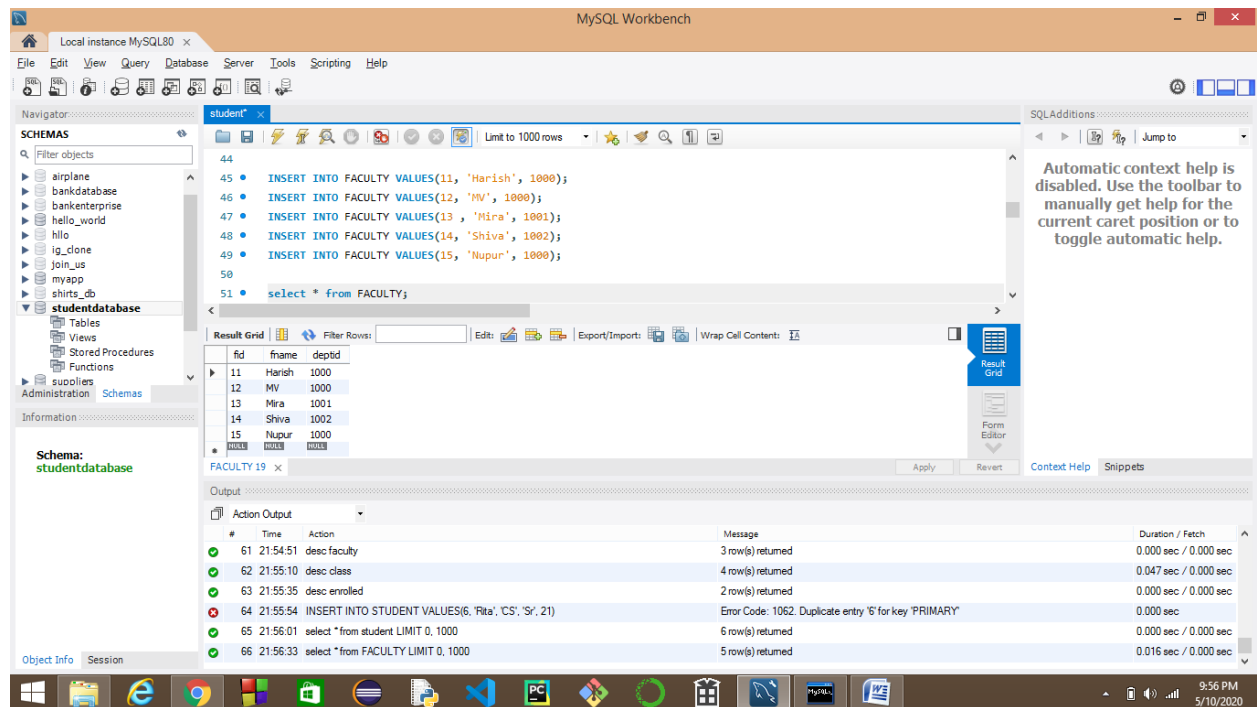
INSERT INTO FACULTY VALUES(12, 'MV', 1000);

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 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', 12);

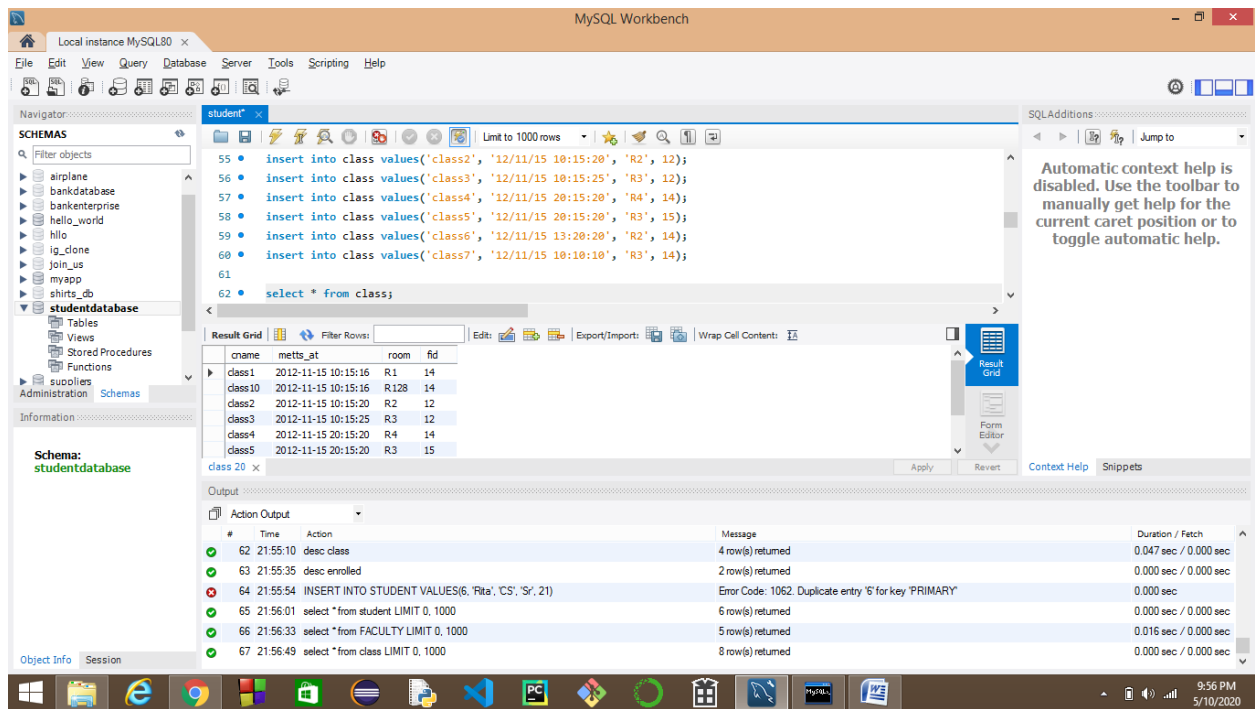
insert into class values('class4', '12/11/15 20:15:20', 'R4', 14);

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 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');

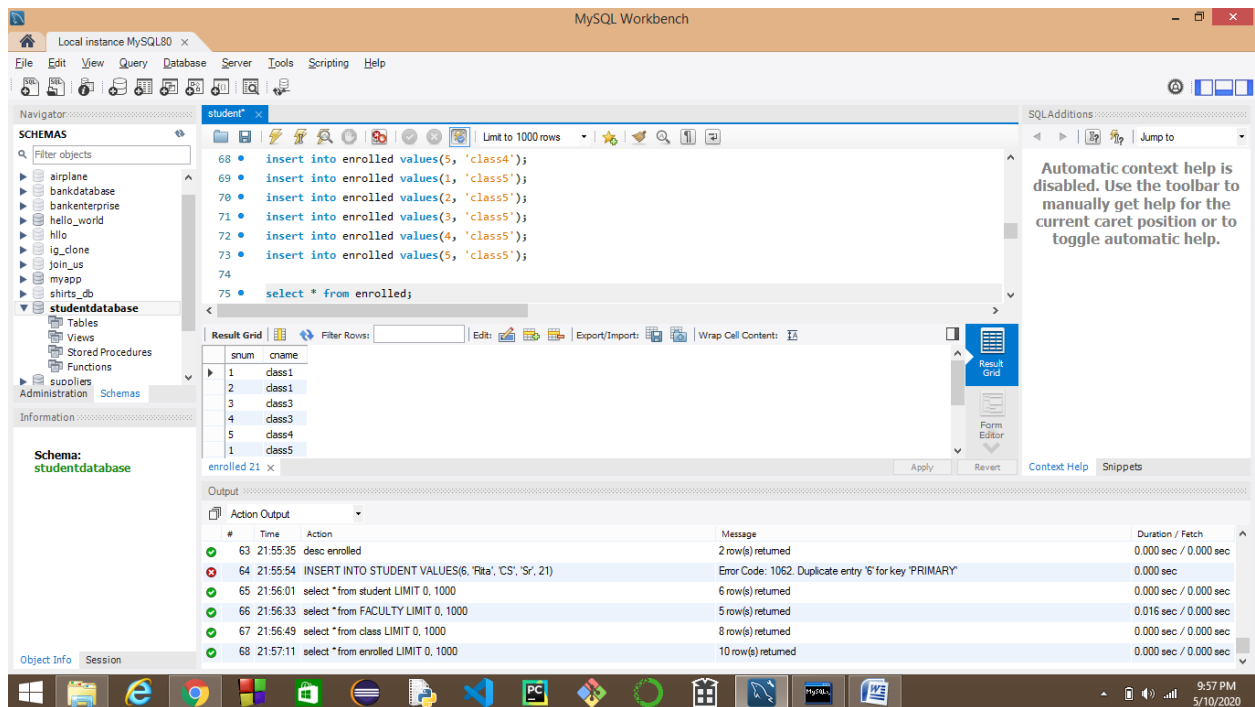
insert into enrolled values(2, 'class5');

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

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

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

select * from enrolled;

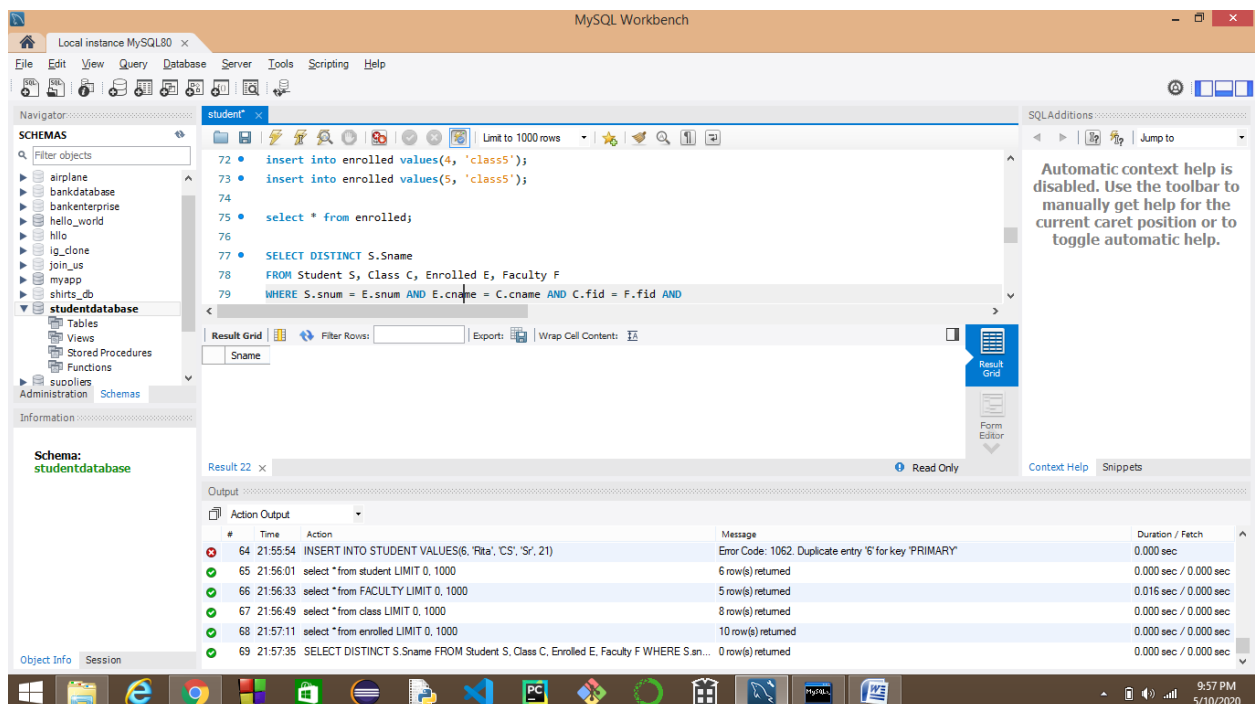


SELECT DISTINCT S.Sname

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

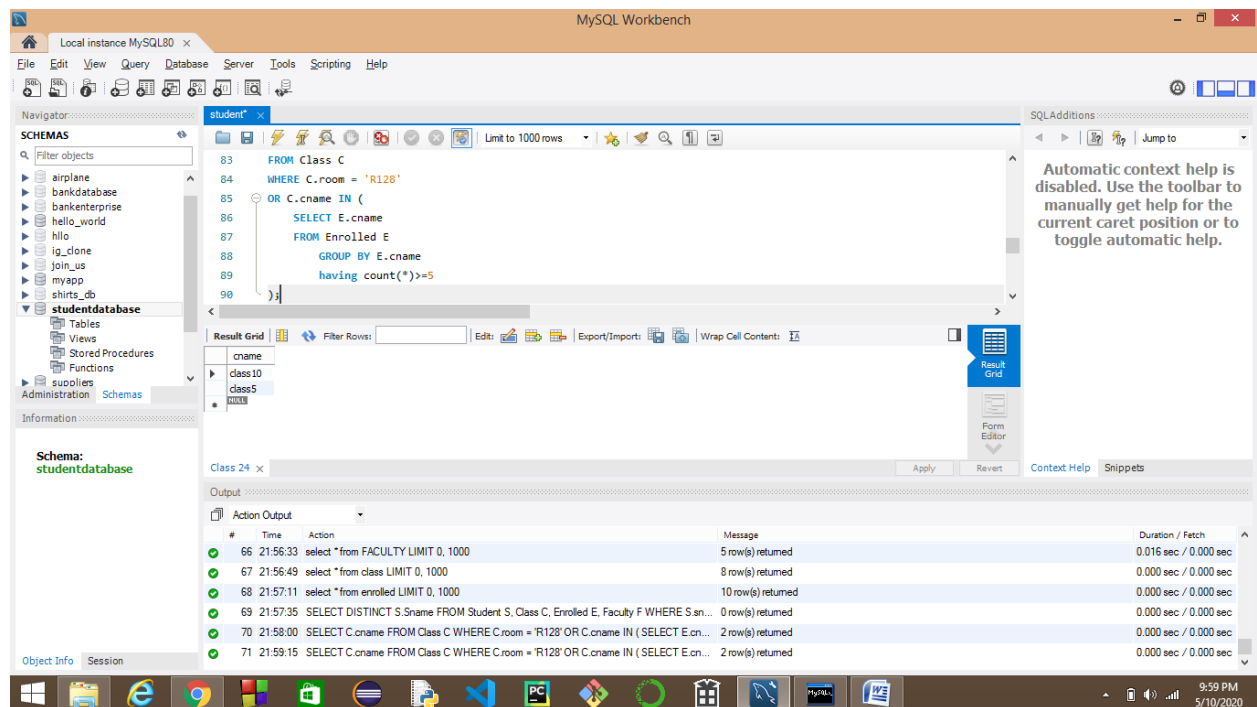
F.fname = 'Harish' AND S.lvl = 'Jr';




```

SELECT C.cname
FROM Class C
WHERE C.room = 'R128'
OR C.cname IN (
    SELECT E.cname
    FROM Enrolled E
    GROUP BY E.cname
    having count(*)>=5
);

```



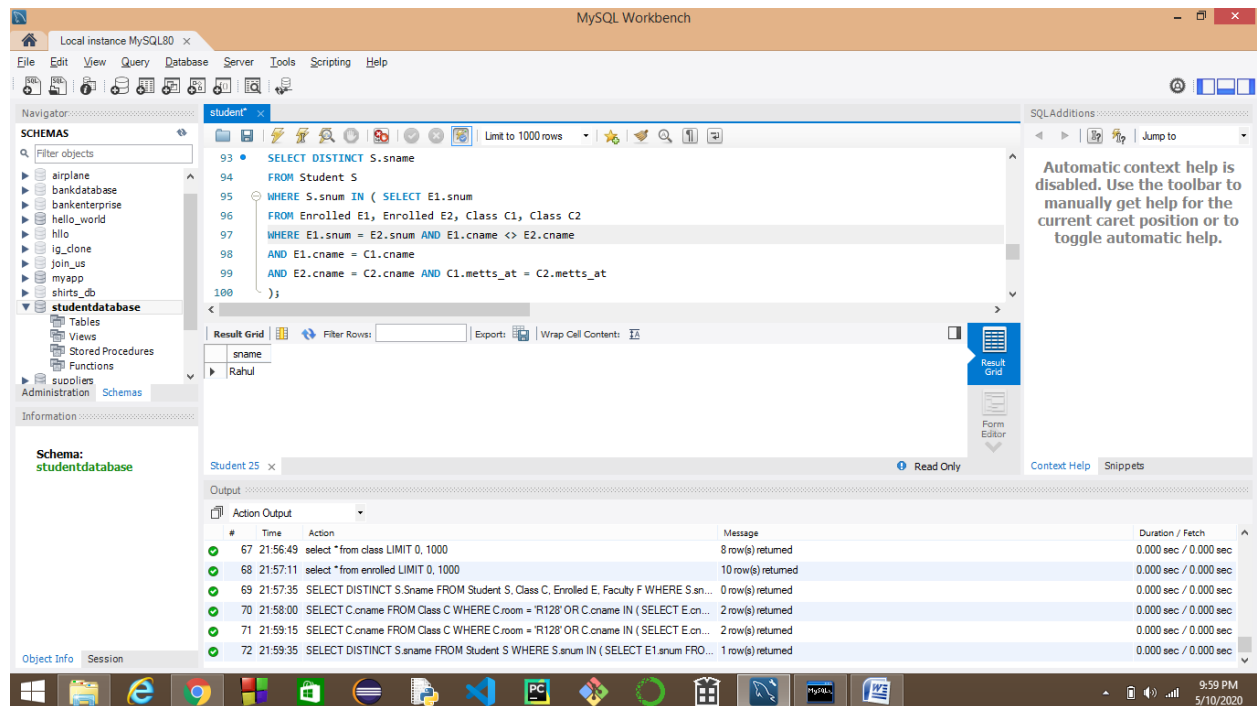
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SELECT DISTINCT S.sname
FROM Student S
WHERE S.snum IN ( SELECT E1.snum
FROM Enrolled E1, Enrolled E2, Class C1, Class C2
WHERE E1.snum = E2.snum AND E1.cname <> E2.cname
AND E1.cname = C1.cname

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AND E2.cname = C2.cname AND C1.metts_at = C2.metts_at

);



SELECT DISTINCT F.fname

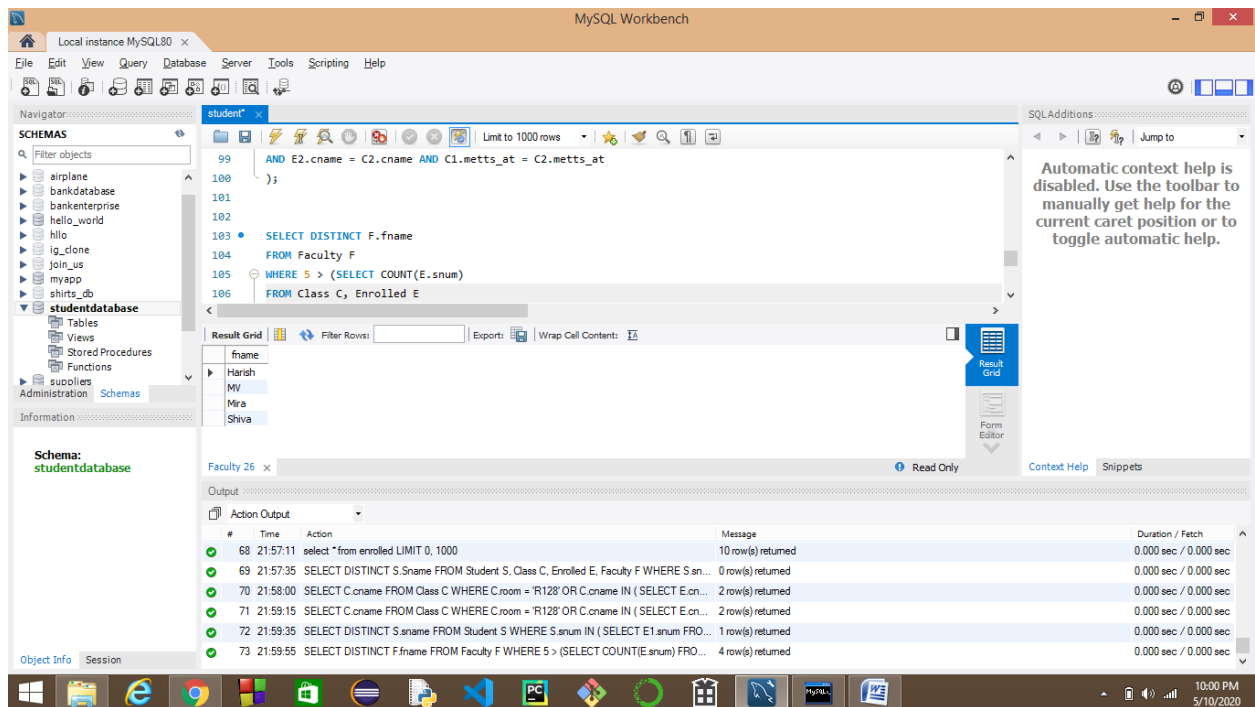
FROM Faculty F

WHERE 5 > (SELECT COUNT(E.snum)

FROM Class C, Enrolled E

WHERE C.cname = E.cname

AND C.fid = F.fid);

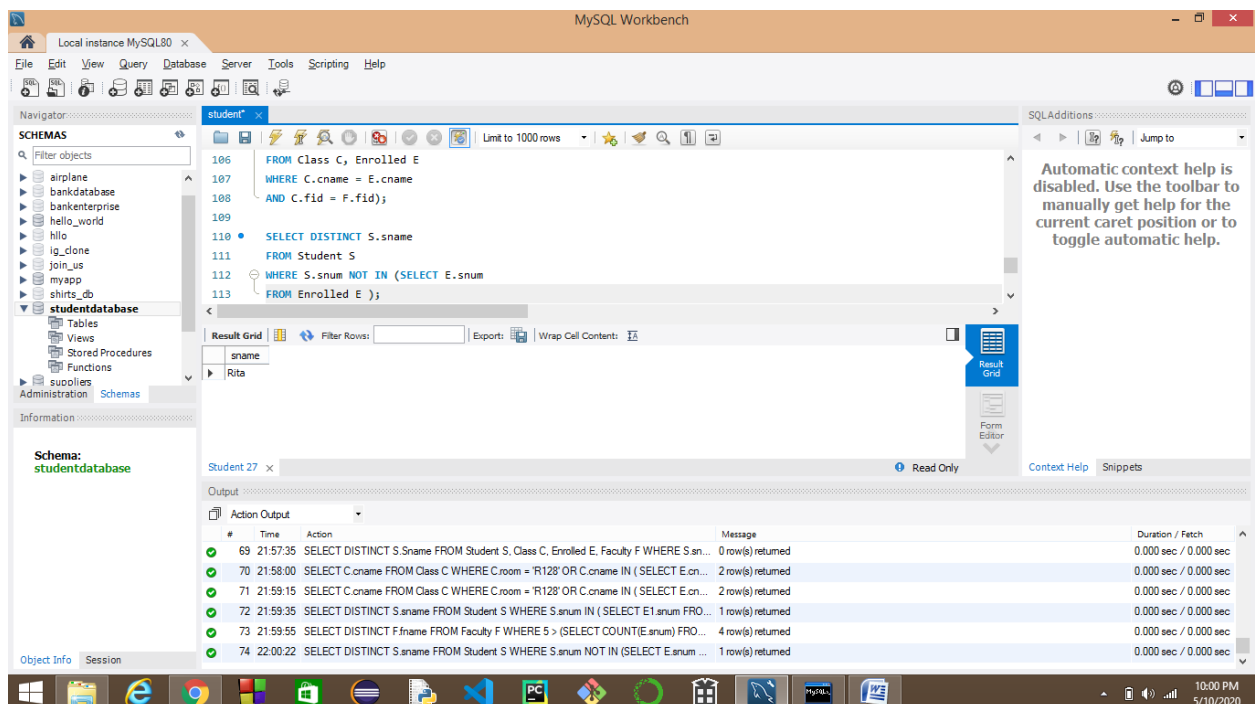


SELECT DISTINCT S.sname

FROM Student S

WHERE S.snum NOT IN (SELECT E.snum

FROM Enrolled E);



```

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.lvl, S1.age
HAVING COUNT(*) >= ALL (SELECT COUNT(*)
FROM Student S2
WHERE S1.age = S2.age)
GROUP BY S2.lvl, S2.age));

```

