**Slot: L27 + L28 Name: Swaranjana Nayak**

**Date: 06/11/2020 Reg. No.: 19BCE0977**

**CSE2004 LAB FAT**

**Aim:**

To solve the given problems by implementing in SQL.

**QUESTION NO. 3**

**Note**: The following queries are performed in Oracle’s SQL Developer software, instead of command line interface. Rest all queries are same, just output will be in the software’s GUI.

**Note:** There were already such named tables in LOCAL SYS, hence tablename\_fat was used to name the table.

1. & 2. Table creation and insertion

Department table

create table department\_fat(deptno number(3), deptname varchar2(20), constraint dept\_no\_pk\_fat primary key(deptno));

insert into department\_fat values(1, 'SCOPE');

insert into department\_fat values(2, 'SITE');

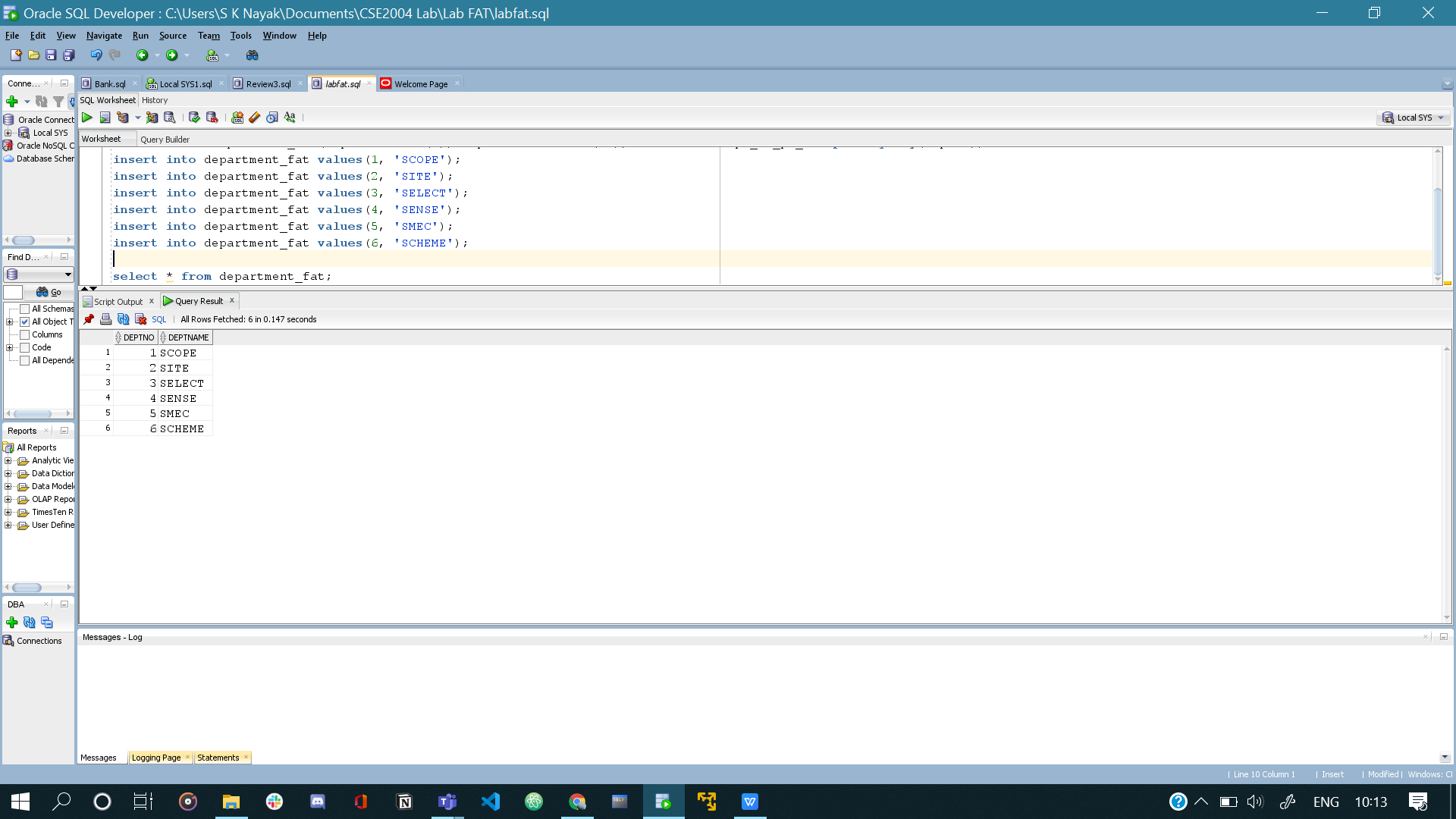
insert into department\_fat values(3, 'SELECT');

insert into department\_fat values(4, 'SENSE');

insert into department\_fat values(5, 'SMEC');

insert into department\_fat values(6, 'SCHEME');

select \* from department\_fat;



Student table

create table student\_fat(regno varchar2(10), name varchar2(20), dob date, address varchar2(20), cgpa number(10, 5), dno number(3),

constraint reg\_no\_pf\_fat primary key(regno), constraint dno\_fk\_fat foreign key(dno) references department\_fat(deptno));

alter table student\_fat add constraint cgpa\_stu\_chk check(cgpa between 2.5 and 10);

insert into student\_fat values('19BCE0001', 'Ravi', '12-DEC-1999', 'Pune', 7.9, 2);

insert into student\_fat values('19BME0002', 'Rajeev', '12-SEP-1999', 'Hyderabad', 8.9, 5);

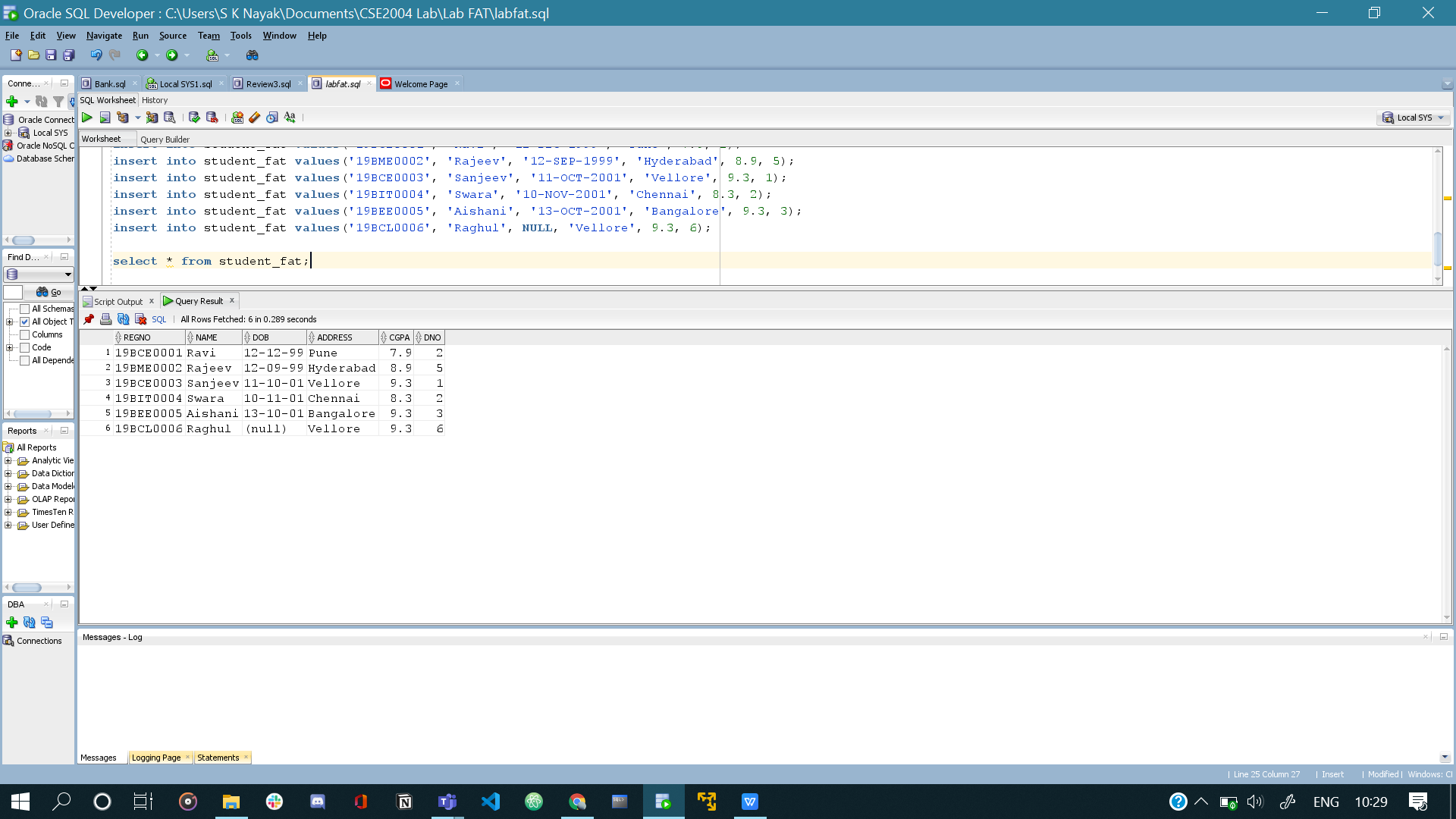
insert into student\_fat values('19BCE0003', 'Sanjeev', '11-OCT-2001', 'Vellore', 9.3, 1);

insert into student\_fat values('19BIT0004', 'Swara', '10-NOV-2001', 'Chennai', 8.3, 2);

insert into student\_fat values('19BEE0005', 'Aishani', '13-OCT-2001', 'Bangalore', 9.3, 3);

insert into student\_fat values('19BCL0006', 'Raghul', NULL, 'Vellore', 9.3, 6);

select \* from student\_fat;



Course table

create table course\_fat(code varchar2(10), title varchar2(30) unique, credit number(2), ctype varchar2(10), constraint code\_pk\_fat primary key(code),

constraint ctype\_chk\_fat check(ctype in ('PC', 'UC', 'UE')));

insert into course\_fat values('CSE2001', 'CAO', 3, 'PC');

insert into course\_fat values('BIT2002', 'DBMS', 4, 'PC');

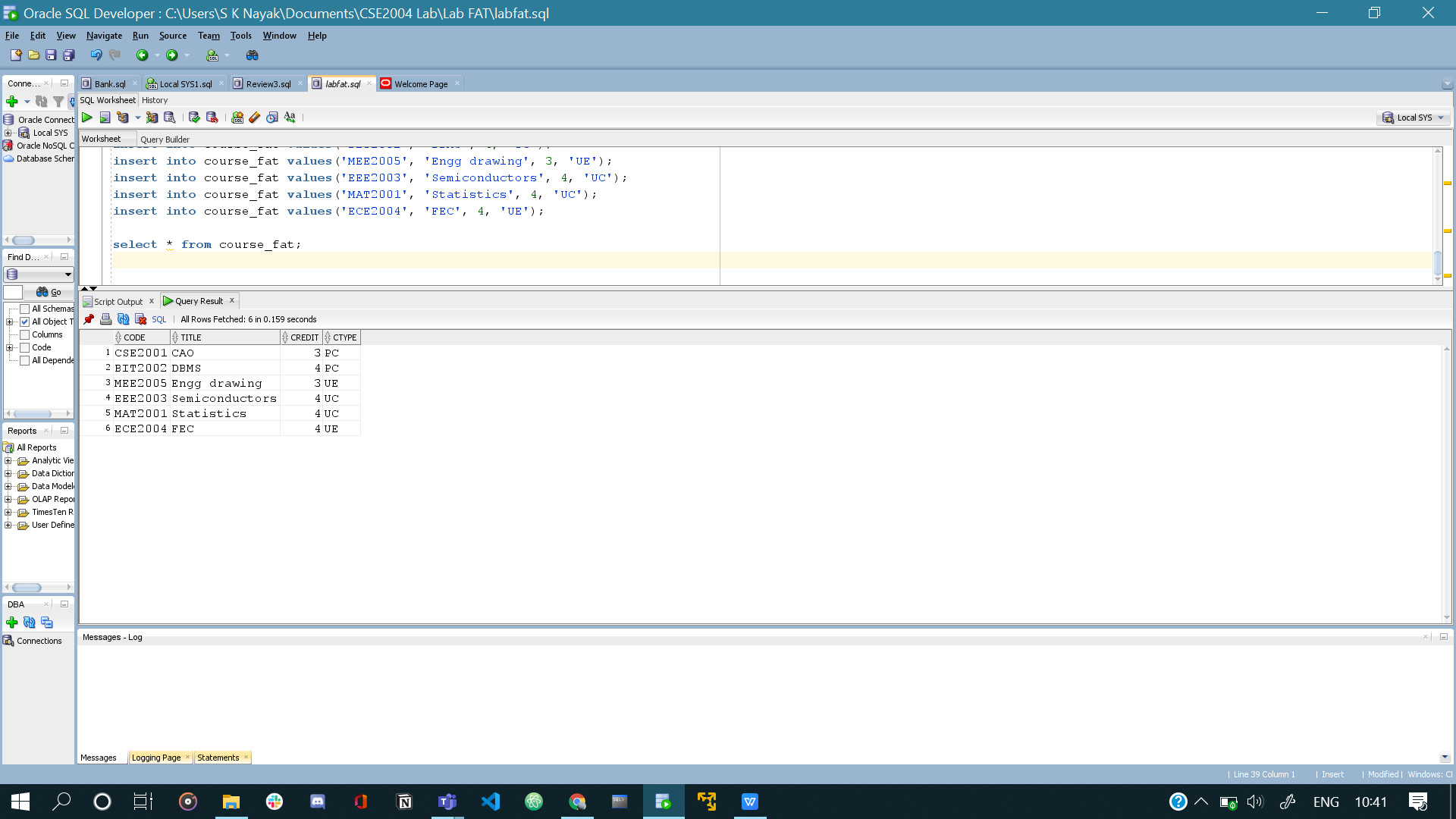
insert into course\_fat values('MEE2005', 'Engg drawing', 3, 'UE');

insert into course\_fat values('EEE2003', 'Semiconductors', 4, 'UC');

insert into course\_fat values('MAT2001', 'Statistics', 4, 'UC');

insert into course\_fat values('ECE2004', 'FEC', 4, 'UE');

select \* from course\_fat;



Registered table

create table registered\_fat(regno varchar2(10), code varchar2(10), sem varchar2(20), constraint regno\_fk\_fat foreign key(regno) references student\_fat(regno),

constraint code\_fk\_fat foreign key(code) references course\_fat(code), constraint reg\_pk\_fat primary key(regno, code, sem));

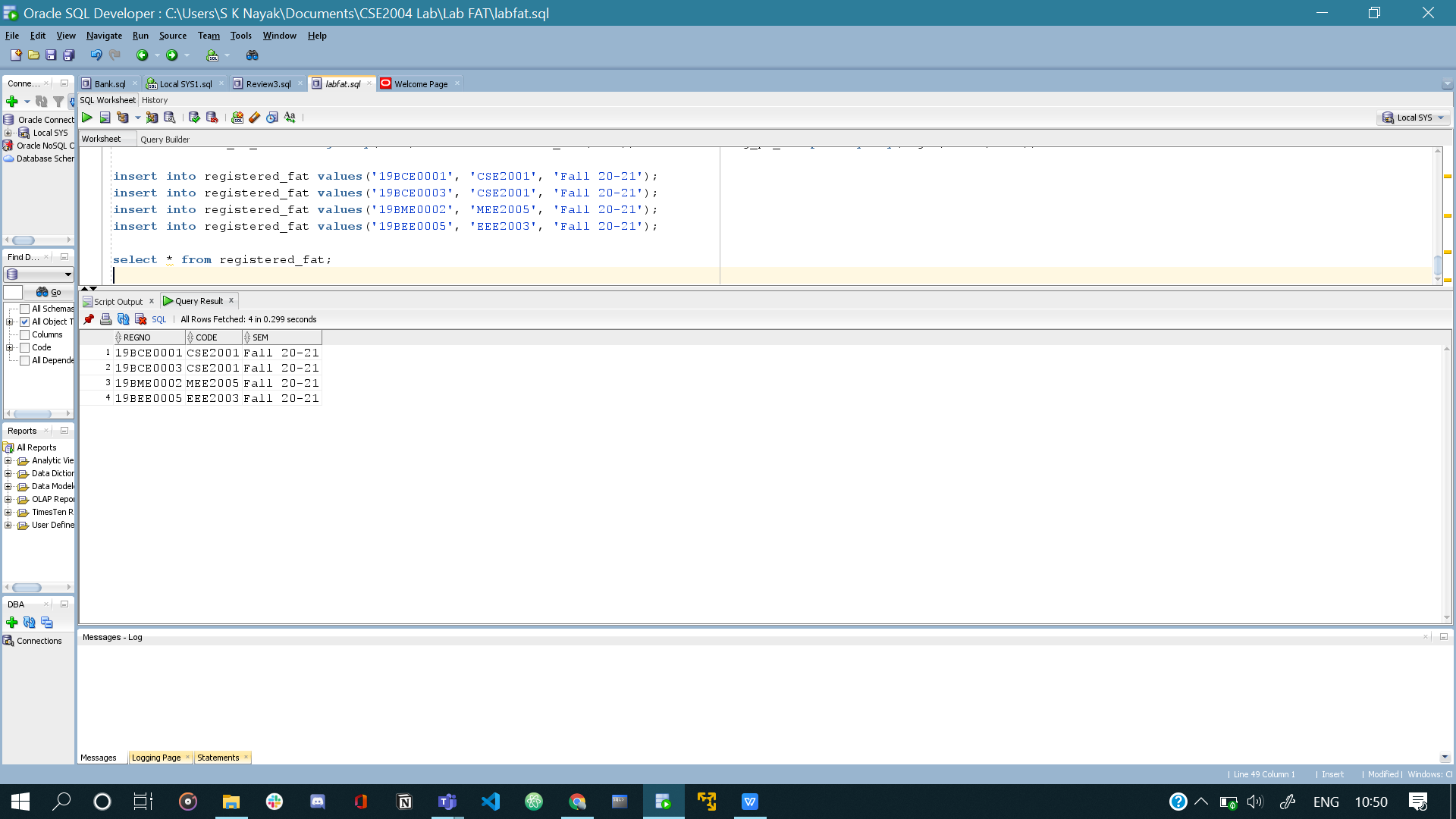
insert into registered\_fat values('19BCE0001', 'CSE2001', 'Fall 20-21');

insert into registered\_fat values('19BCE0003', 'CSE2001', 'Fall 20-21');

insert into registered\_fat values('19BME0002', 'MEE2005', 'Fall 20-21');

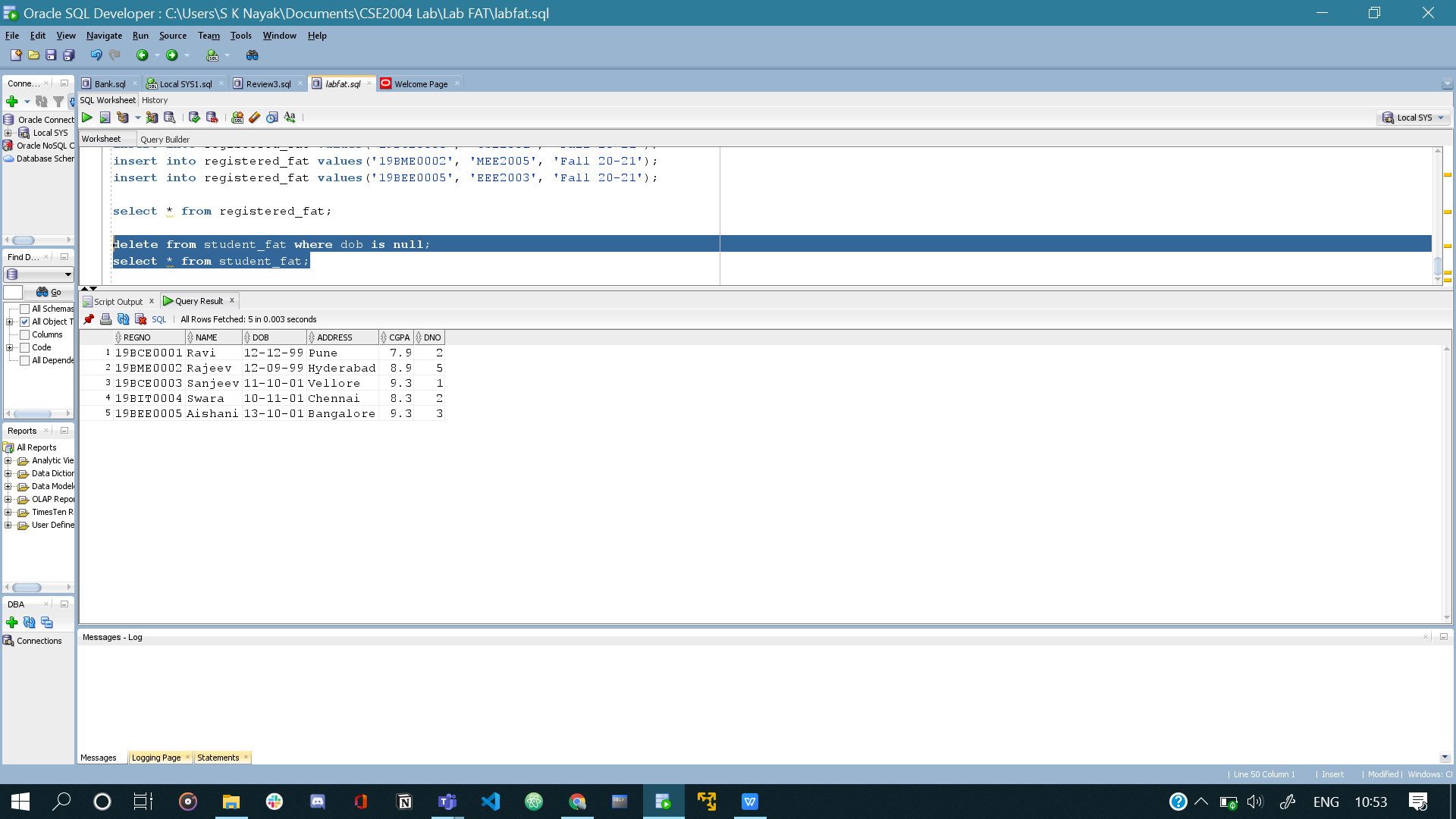
insert into registered\_fat values('19BEE0005', 'EEE2003', 'Fall 20-21');

select \* from registered\_fat;

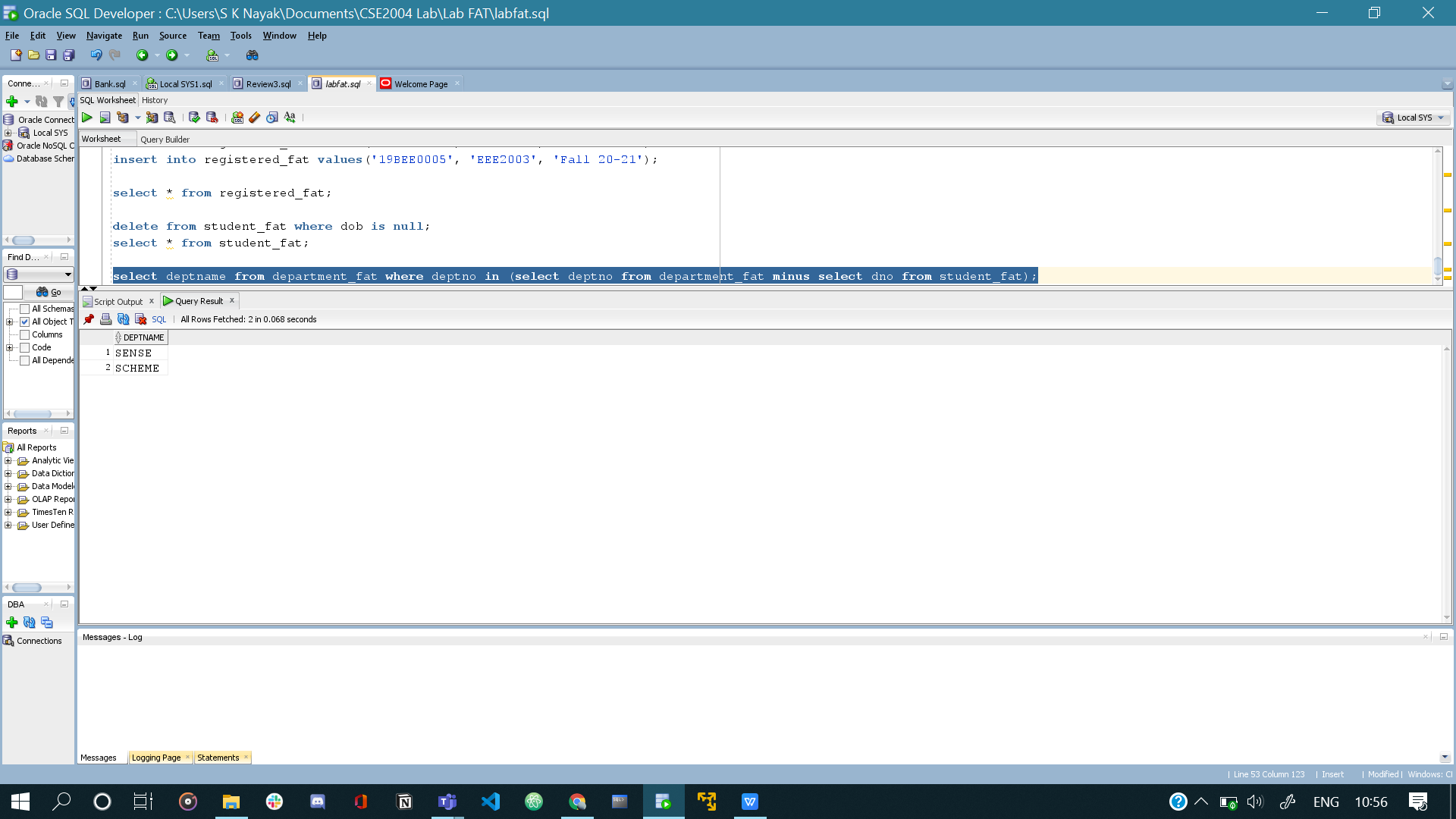


1. delete from student\_fat where dob is null;

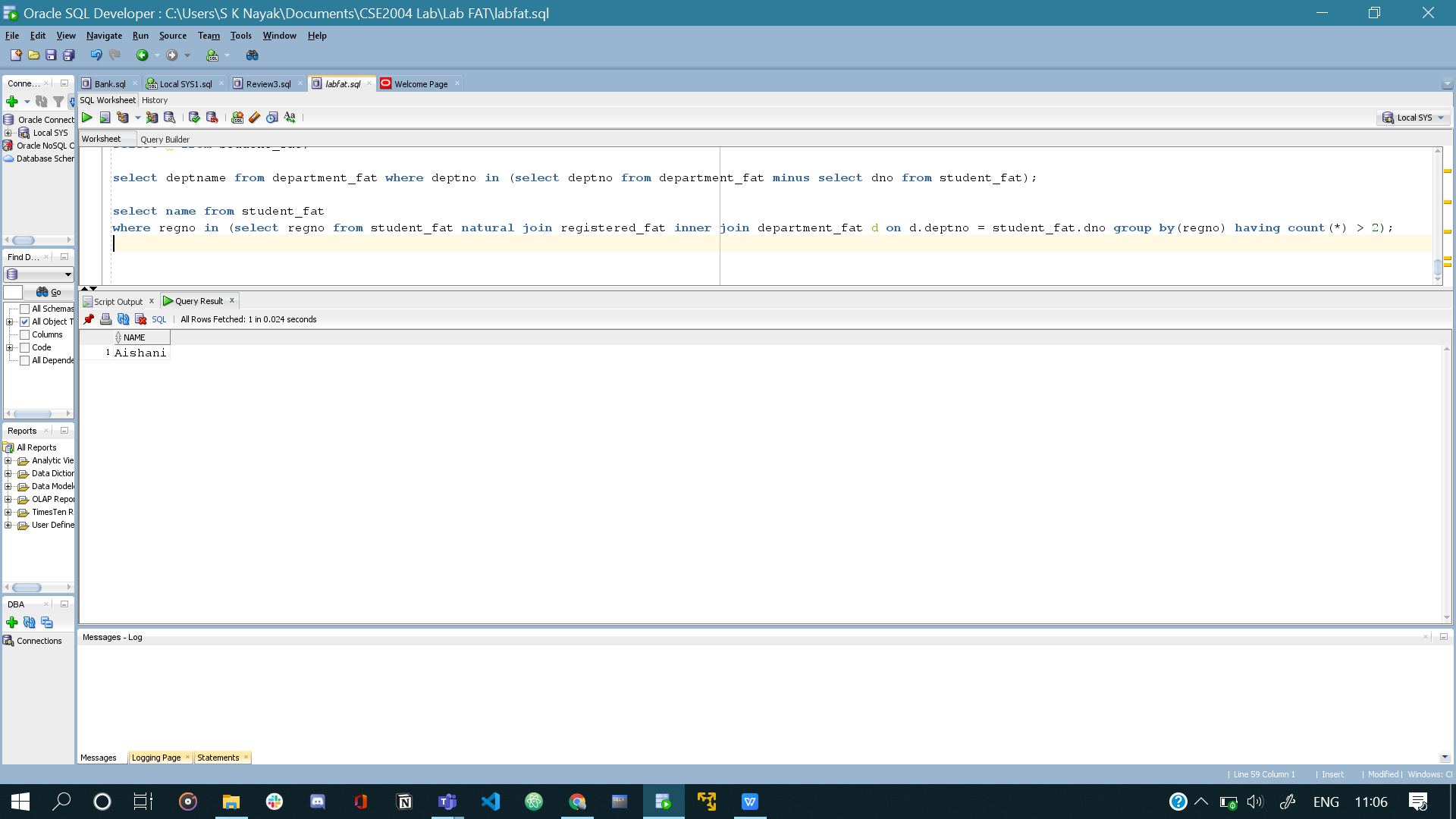
select \* from student\_fat;



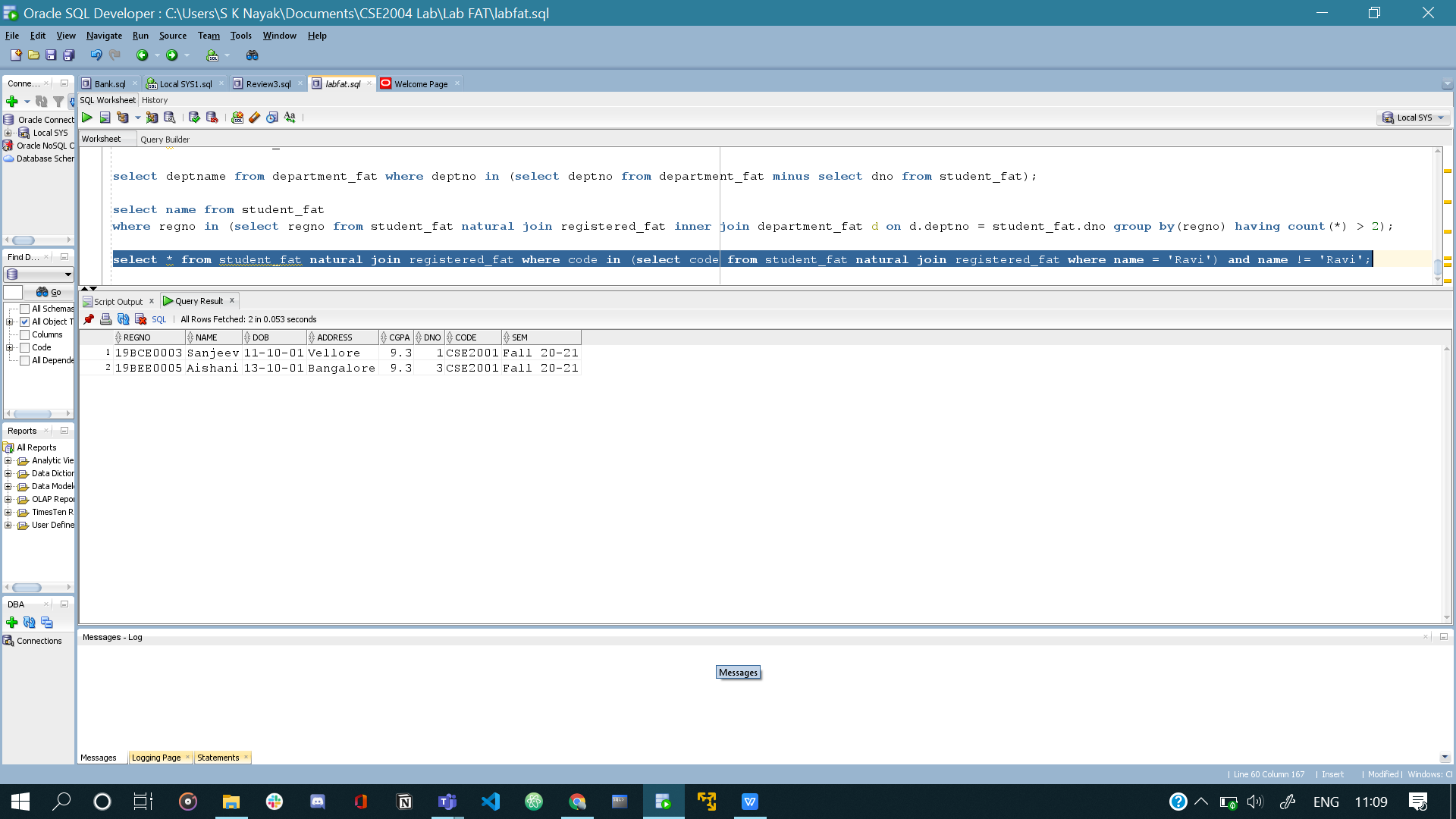
1. A) select deptname from department\_fat where deptno in (select deptno from department\_fat minus select dno from student\_fat);



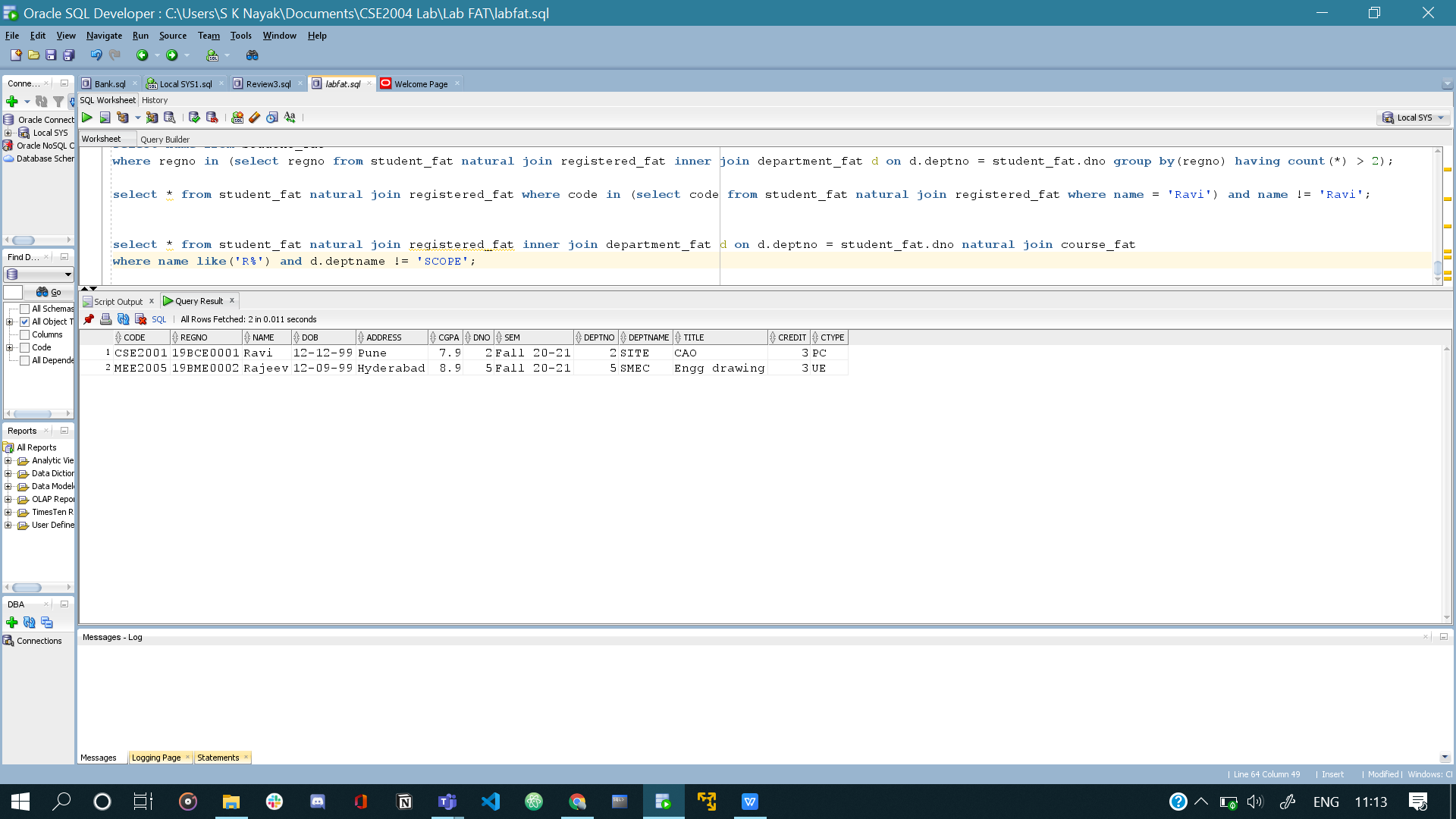
1. select name from student\_fat where regno in (select regno from student\_fat natural join registered\_fat inner join department\_fat d on d.deptno = student\_fat.dno group by(regno) having count(\*) > 2);



1. select \* from student\_fat natural join registered\_fat where code in (select code from student\_fat natural join registered\_fat where name = 'Ravi') and name != 'Ravi';



1. select \* from student\_fat natural join registered\_fat inner join department\_fat d on d.deptno = student\_fat.dno natural join course\_fat where name like('R%') and d.deptname != 'SCOPE';



1. Code:

declare

cursor c is select code, credit from course\_fat;

code course\_fat.code%type;

cred course\_fat.credit%type;

begin

open c;

loop

fetch c into code, cred;

exit when c%notfound;

if cred = 4 then

update course\_fat set ctype = 'PC' where course\_fat.code = code;

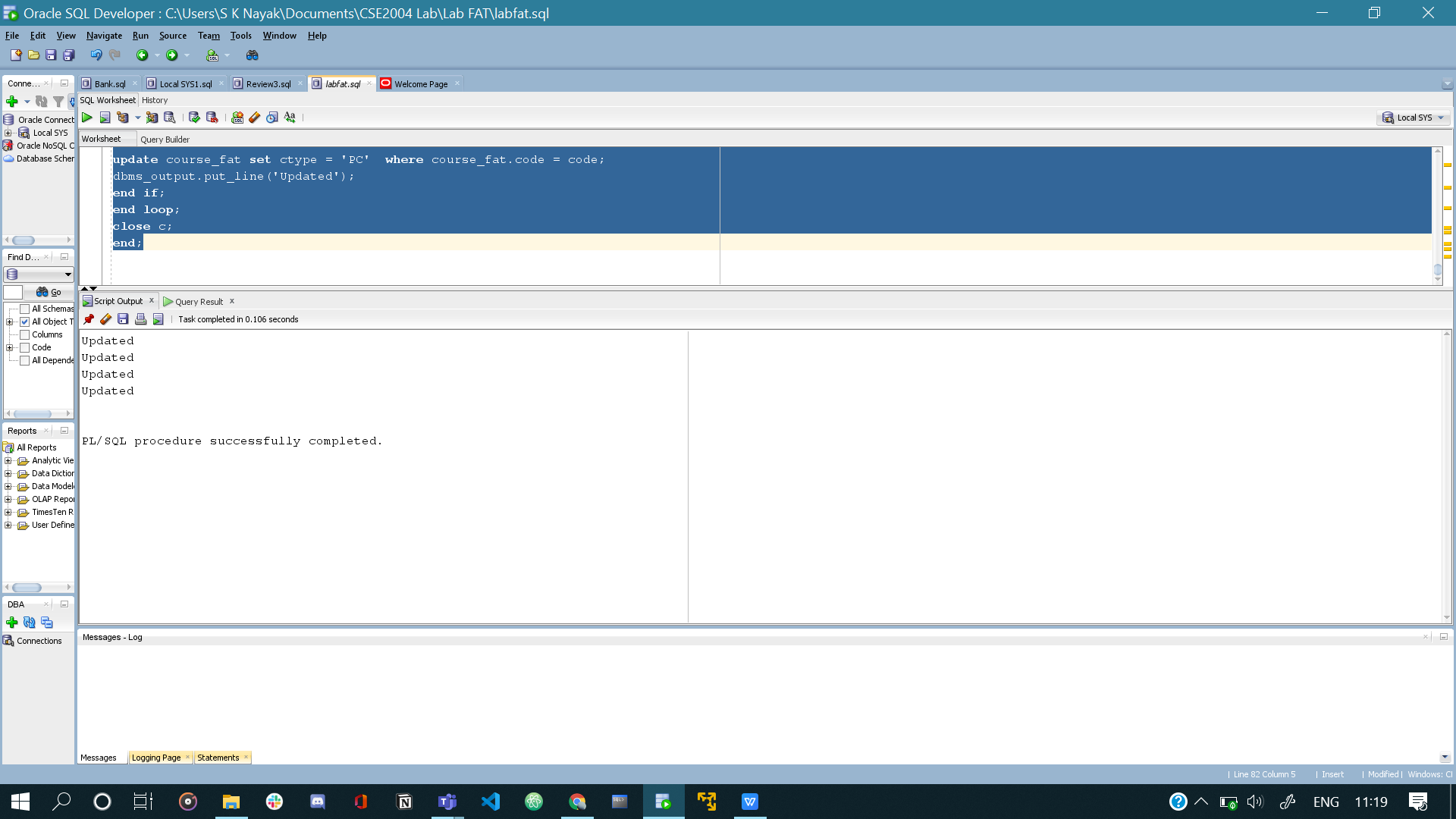
dbms\_output.put\_line('Updated');

end if;

end loop;

close c;

end;



1. Code:

create or replace trigger update\_address\_student

after update on student\_fat

for each row

enable

declare

r student\_fat.regno%type := :new.regno;

n student\_fat.name%type := :new.name;

d student\_fat.dob%type := :new.dob;

a student\_fat.address%type := :new.address;

c student\_fat.cgpa%type := :new.cgpa;

dn student\_fat.dno%type := :new.dno;

begin

dbms\_output.put\_line(r);

dbms\_output.put\_line(n);

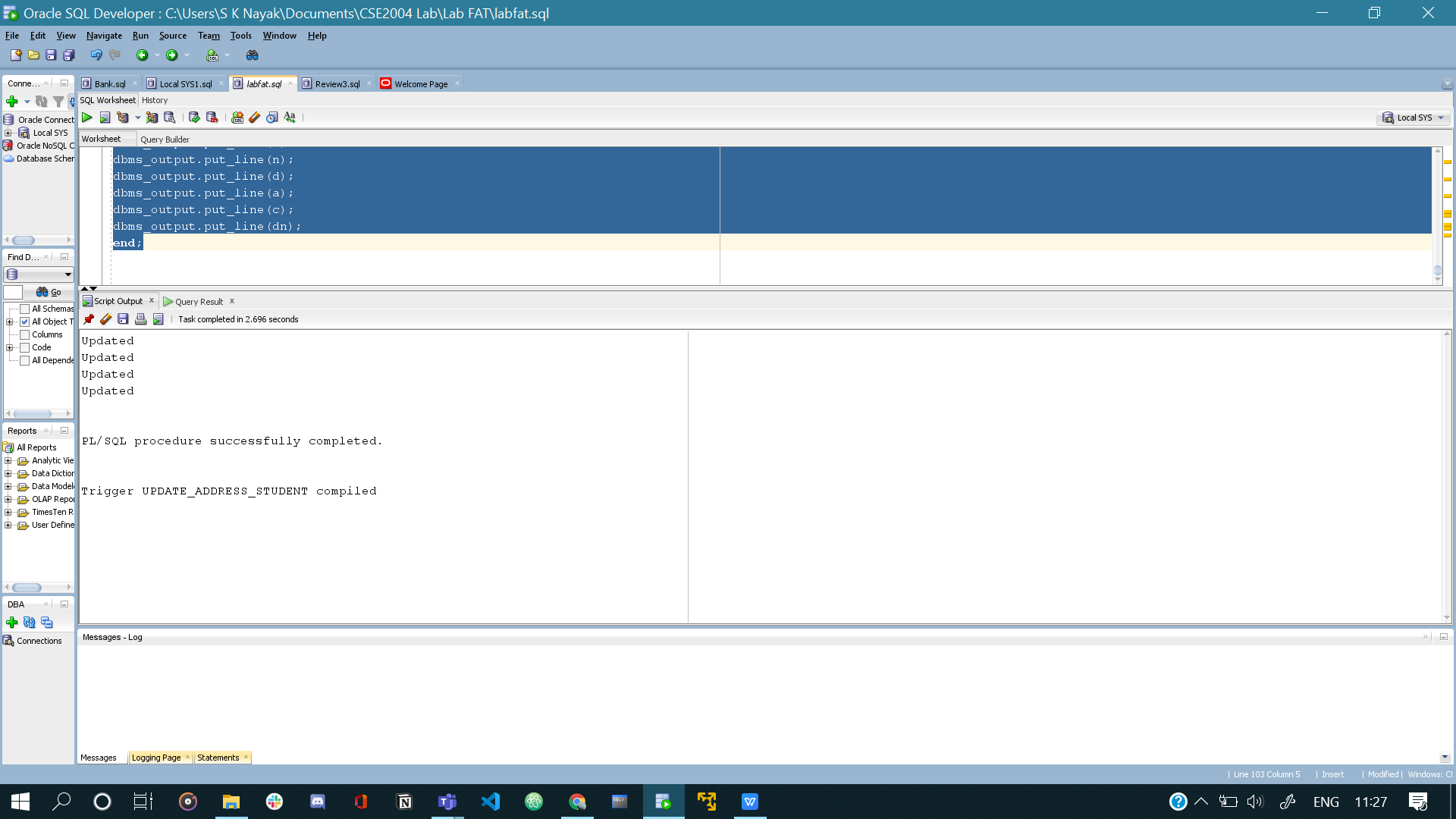
dbms\_output.put\_line(d);

dbms\_output.put\_line(a);

dbms\_output.put\_line(c);

dbms\_output.put\_line(dn);

end;



3.alter table student\_fat drop column address;

