NAME : SANJANA ASRANI

DIV : D7B

ROLL NO. : 01

DBMS EXP 2

Mapping ER/EER to the Relational schema model and creating a schema diagram for your system.

‘HOSTEL MANAGEMENT SYSTEM’ SanjanaC/sanj123

DBMS EXP 3

Create a database using Data Definition Language (DDL) and apply Integrity constraints for your specified System

//ROOM\_ID WILL ALWAYS BE LIKE 1,2,3,4,5….

//BUT ROOM\_NO CAN BE 200,343,102…

SEQUENCE OF CREATION OF TABLES :

department

staff

room

student

id of students in a room

visitor

looks after

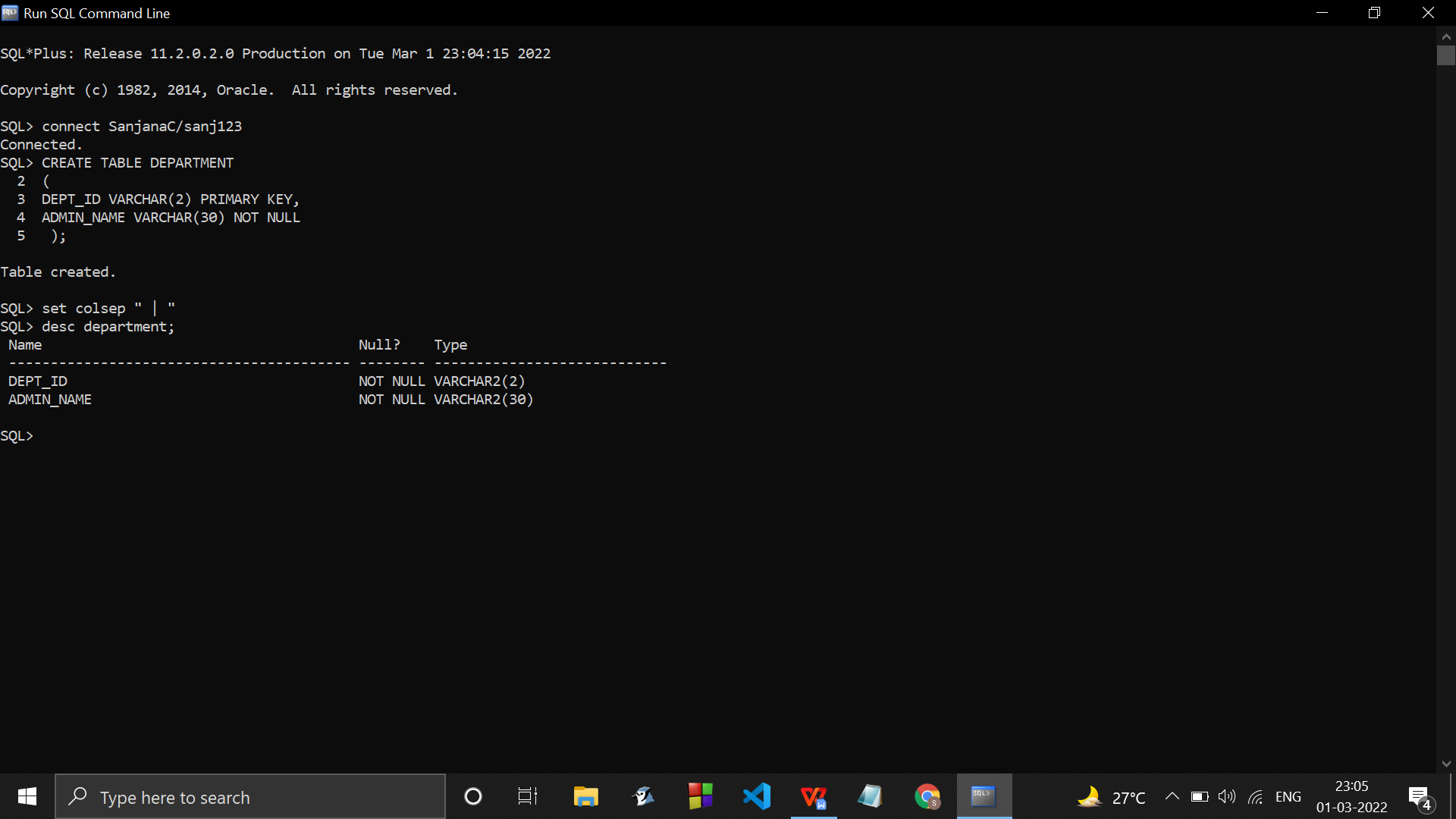
CREATE TABLE DEPARTMENT

(

DEPT\_ID VARCHAR(2) PRIMARY KEY,

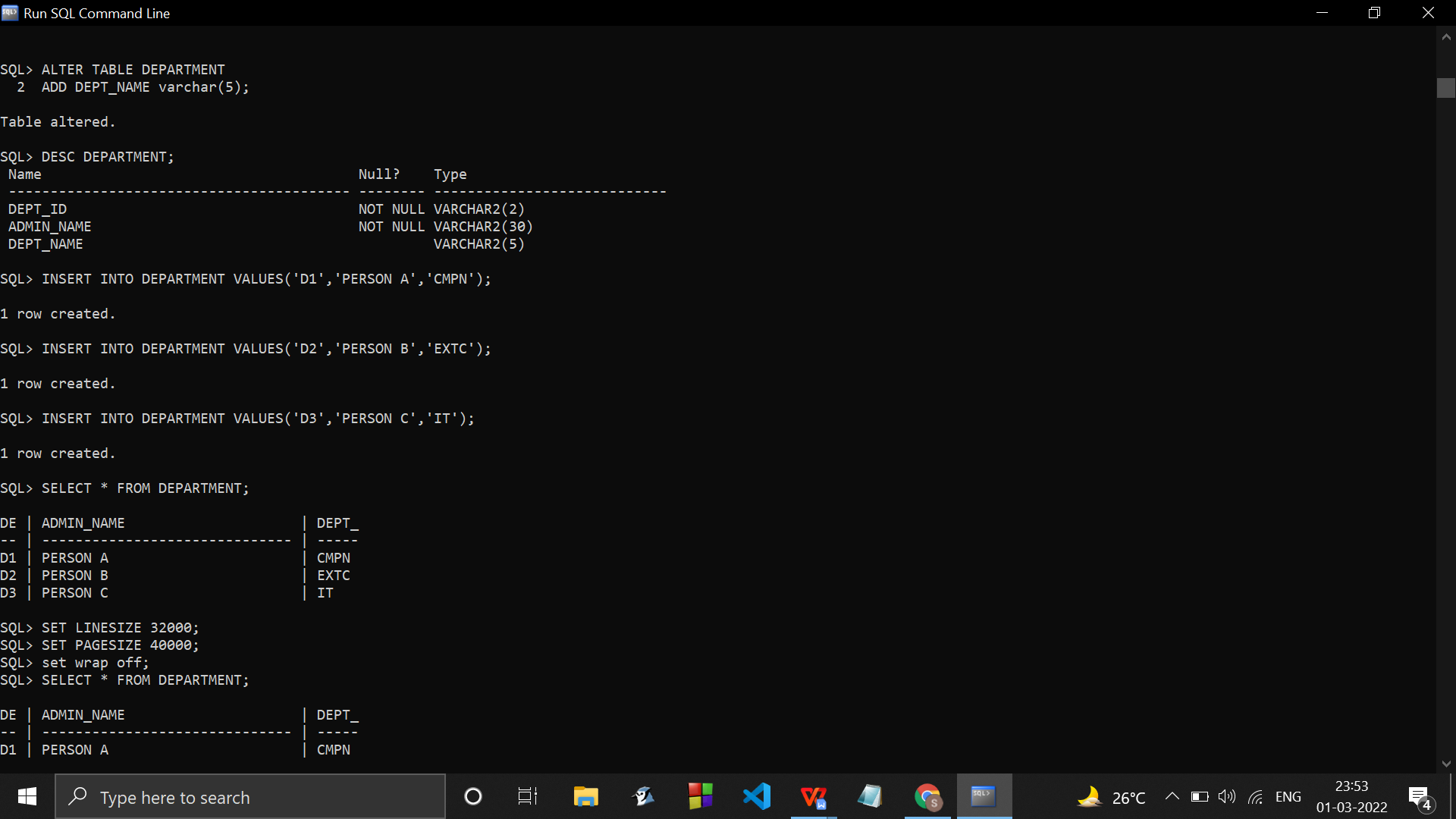
ADMIN\_NAME VARCHAR(30) NOT NULL

);



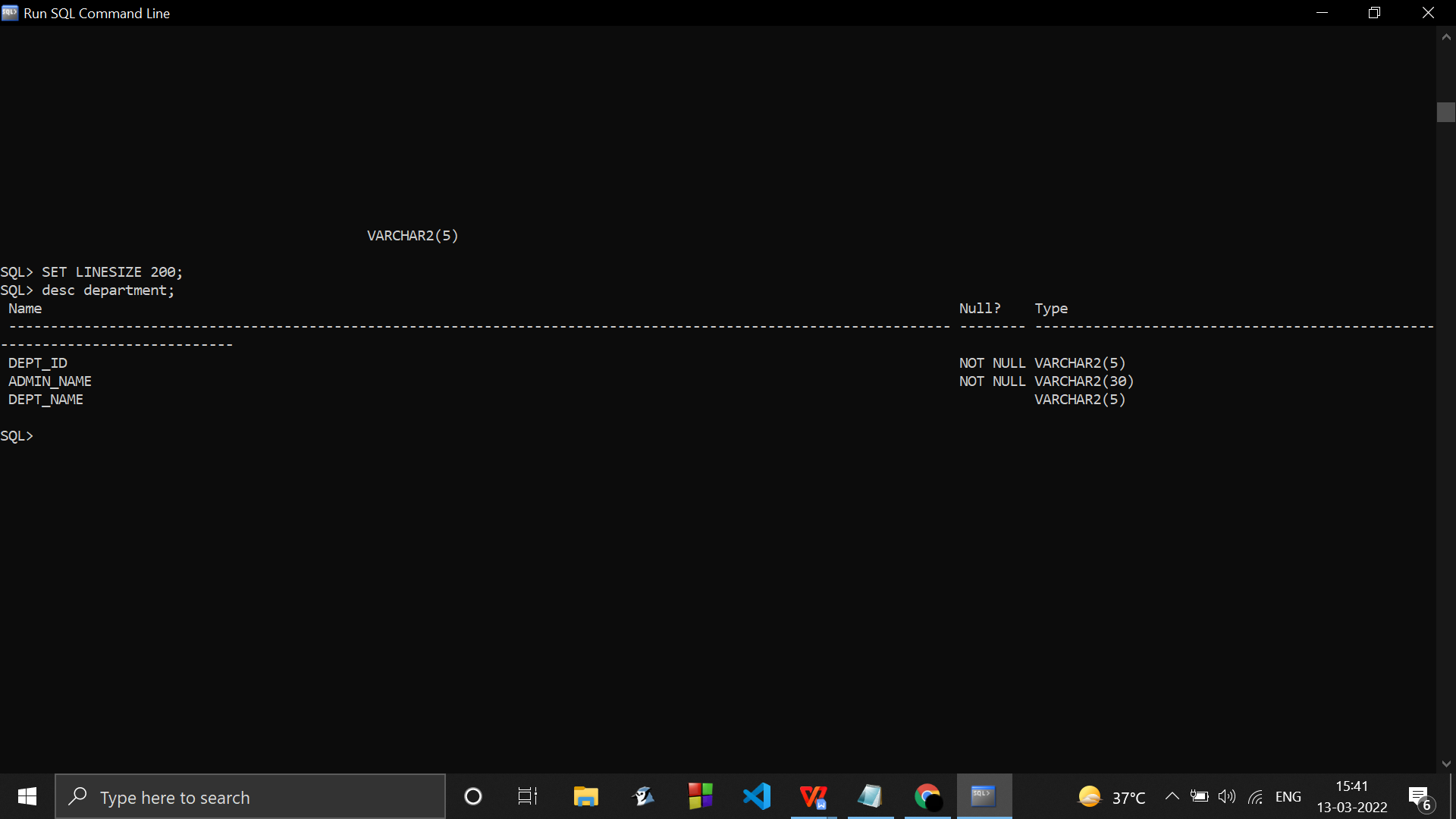
ALTER TABLE DEPARTMENT

ADD DEPT\_NAME VARCHAR(5) NOT NULL;



ALTER TABLE department

MODIFY dept\_id varchar(5);



INSERT INTO DEPARTMENT VALUES('D1','PERSON A','CMPN');

INSERT INTO DEPARTMENT VALUES('D2','PERSON B','EXTC');

INSERT INTO DEPARTMENT VALUES('D3','PERSON C','IT');

CREATE TABLE STAFF

(

STAFF\_ID VARCHAR(5) PRIMARY KEY,

STAFF\_NAME VARCHAR(30) NOT NULL,

STAFF\_CONTACT\_NO NUMBER(10) ,

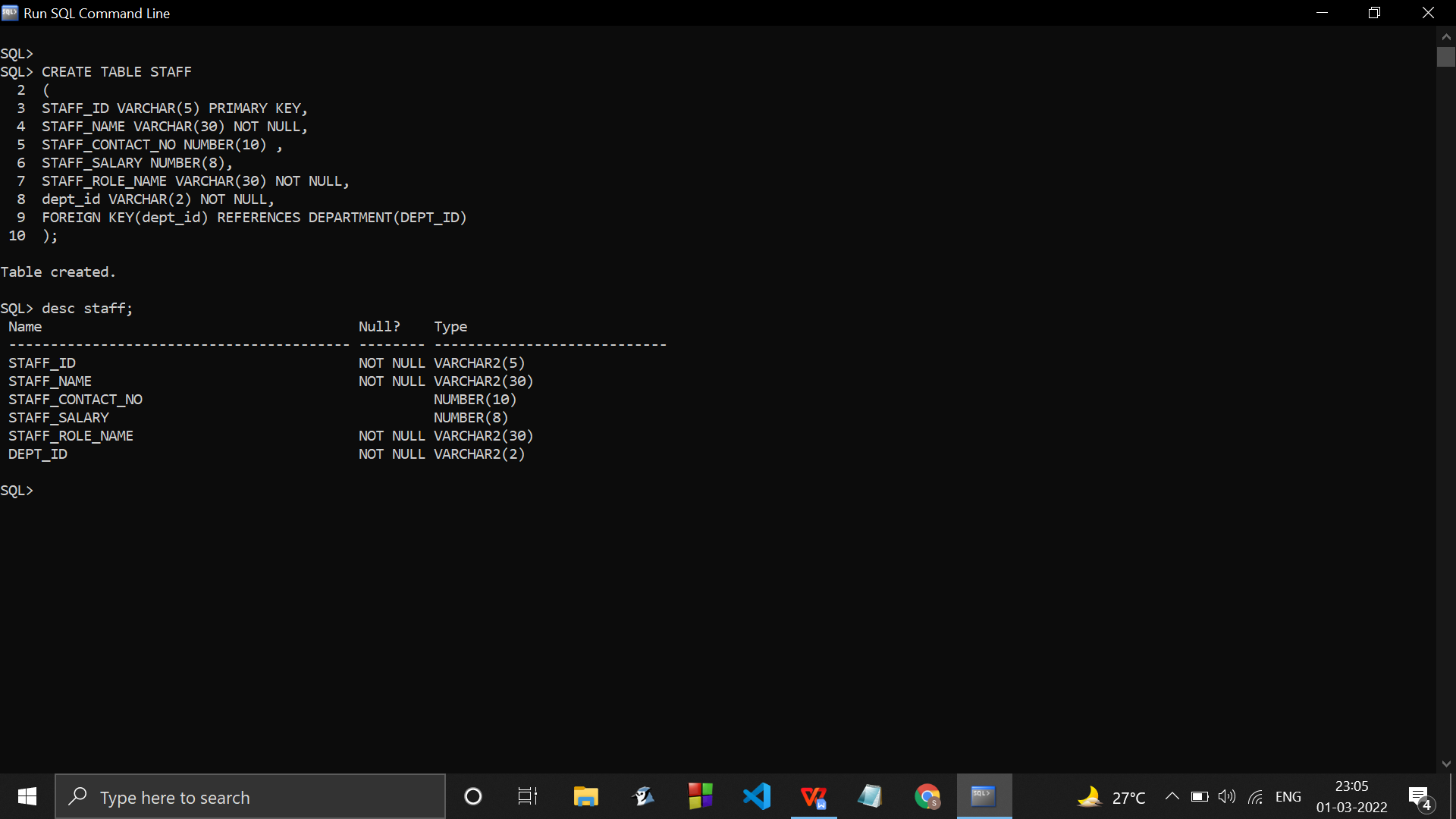
STAFF\_SALARY NUMBER(8),

STAFF\_ROLE\_NAME VARCHAR(30) NOT NULL,

dept\_id VARCHAR(2) NOT NULL,

FOREIGN KEY(dept\_id) REFERENCES DEPARTMENT(DEPT\_ID)

);



INSERT INTO STAFF VALUES('S001','Jose Sellers',1234567890,5000,'Janitor','D1');

INSERT INTO STAFF VALUES('S002','Atticus Turner',9876543210,7000,'Manager','D1');

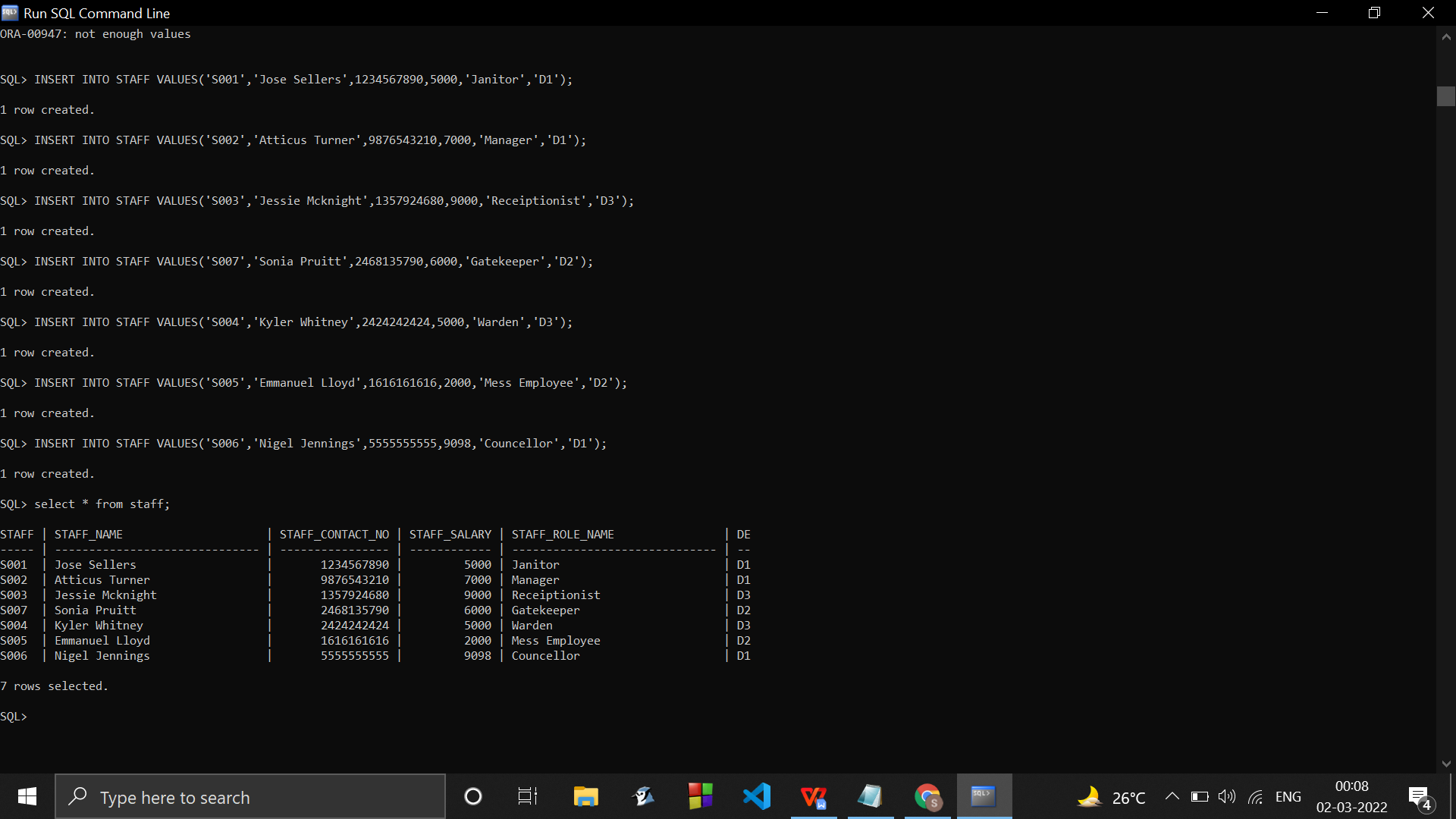
INSERT INTO STAFF VALUES('S003','Jessie Mcknight',1357924680,9000,'Receiptionist','D3');

INSERT INTO STAFF VALUES('S007','Sonia Pruitt',2468135790,6000,'Gatekeeper','D2');

INSERT INTO STAFF VALUES('S004','Kyler Whitney',2424242424,5000,'Warden','D3');

INSERT INTO STAFF VALUES('S005','Emmanuel Lloyd',1616161616,2000,'Mess Employee','D2');

INSERT INTO STAFF VALUES('S006','Nigel Jennings',5555555555,9098,'Councellor','D1');



ALTER TABLE STAFF

MODIFY dept\_id varchar(5);

CREATE TABLE STUDENT

(

STUD\_ID VARCHAR(5) PRIMARY KEY,

STUD\_NAME VARCHAR(30) NOT NULL,

STUD\_ADHAR\_NO NUMBER(10) ,

STUD\_STAY\_PERIOD NUMBER(8),

STUD\_GENDER CHAR(1),

STUD\_DEPT VARCHAR(4) NOT NULL,

STUD\_DOB DATE,

room\_id VARCHAR(5) NOT NULL,

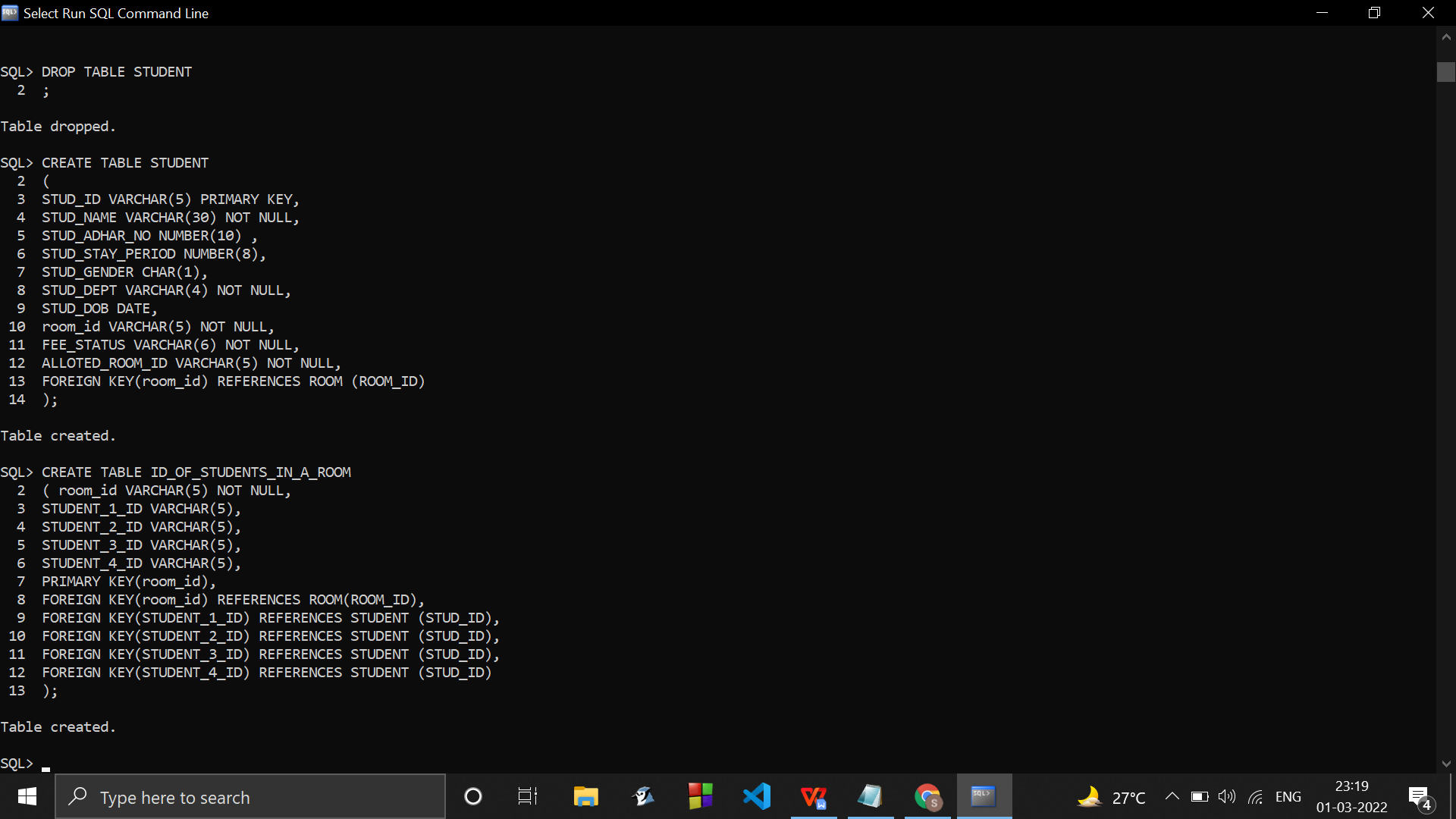
FEE\_STATUS VARCHAR(6) NOT NULL,

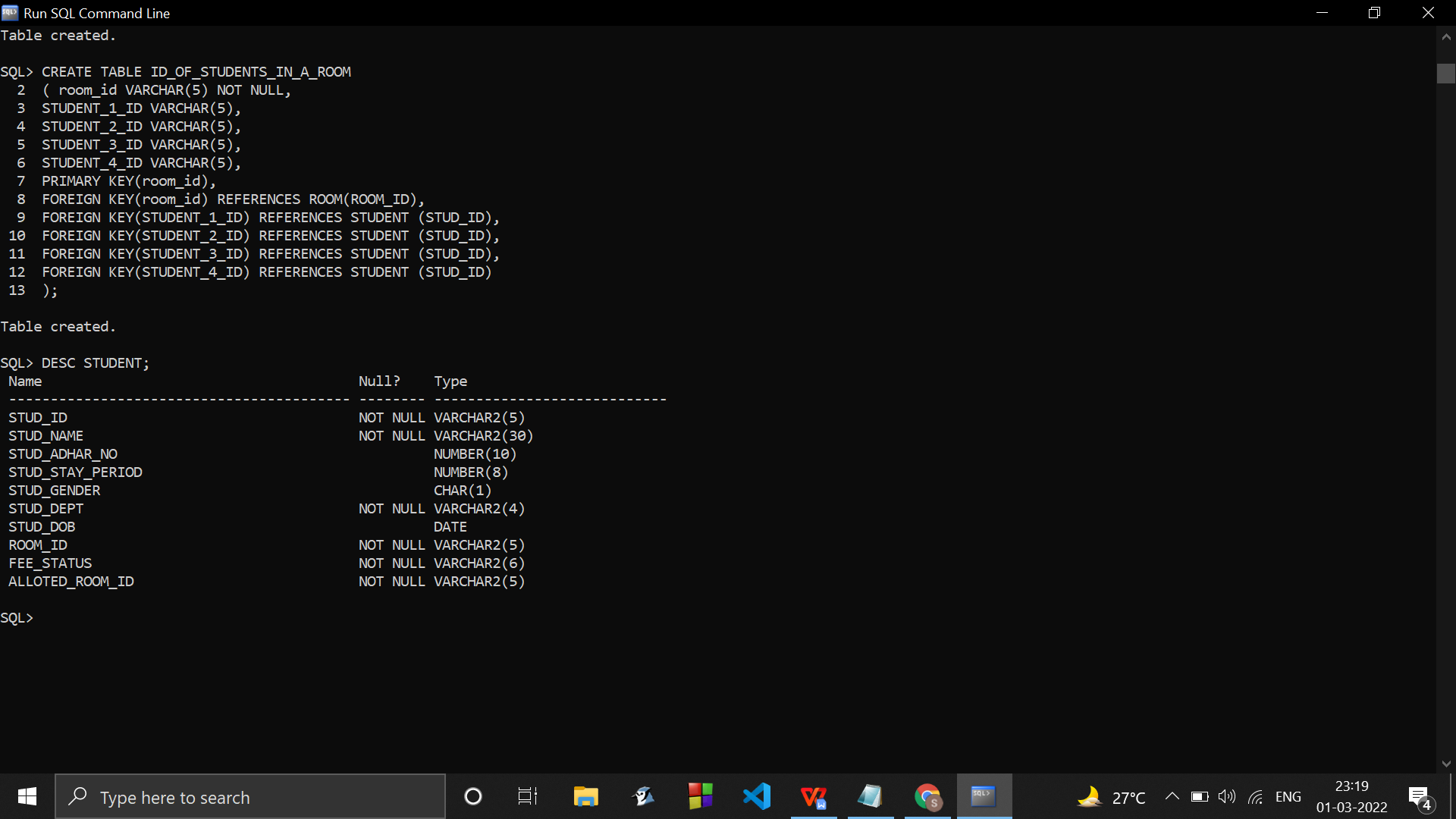
ALLOTED\_ROOM\_ID VARCHAR(5) NOT NULL,

FOREIGN KEY(room\_id) REFERENCES ROOM (ROOM\_ID)

FOREIGN KEY(STUD\_DEPT) REFERENCES DEPARTMENT(DEPT\_ID)

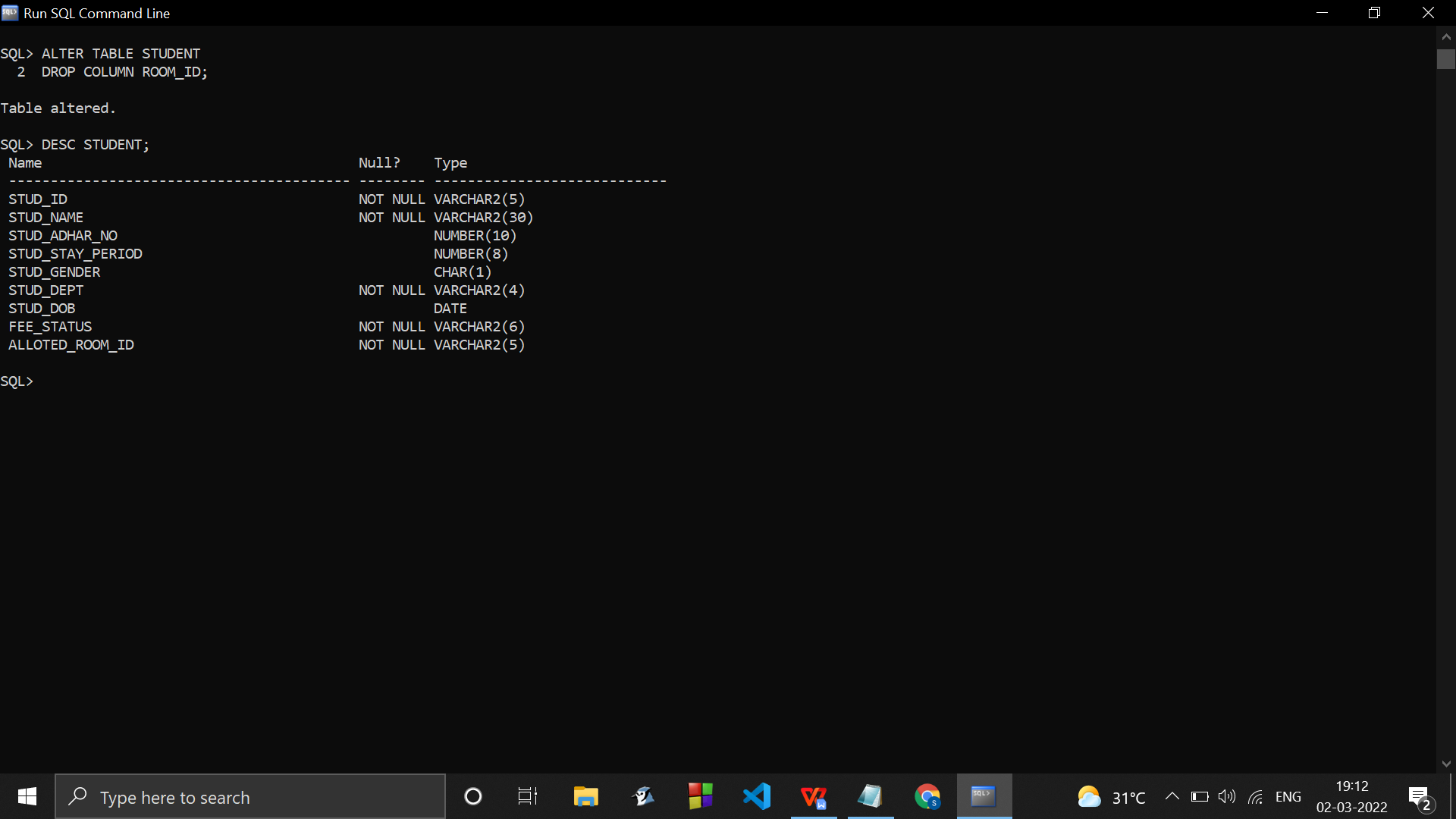
);





ALTER TABLE STUDENT

2 DROP COLUMN ROOM\_ID;



.alter table student to have 12 characters in adhar no

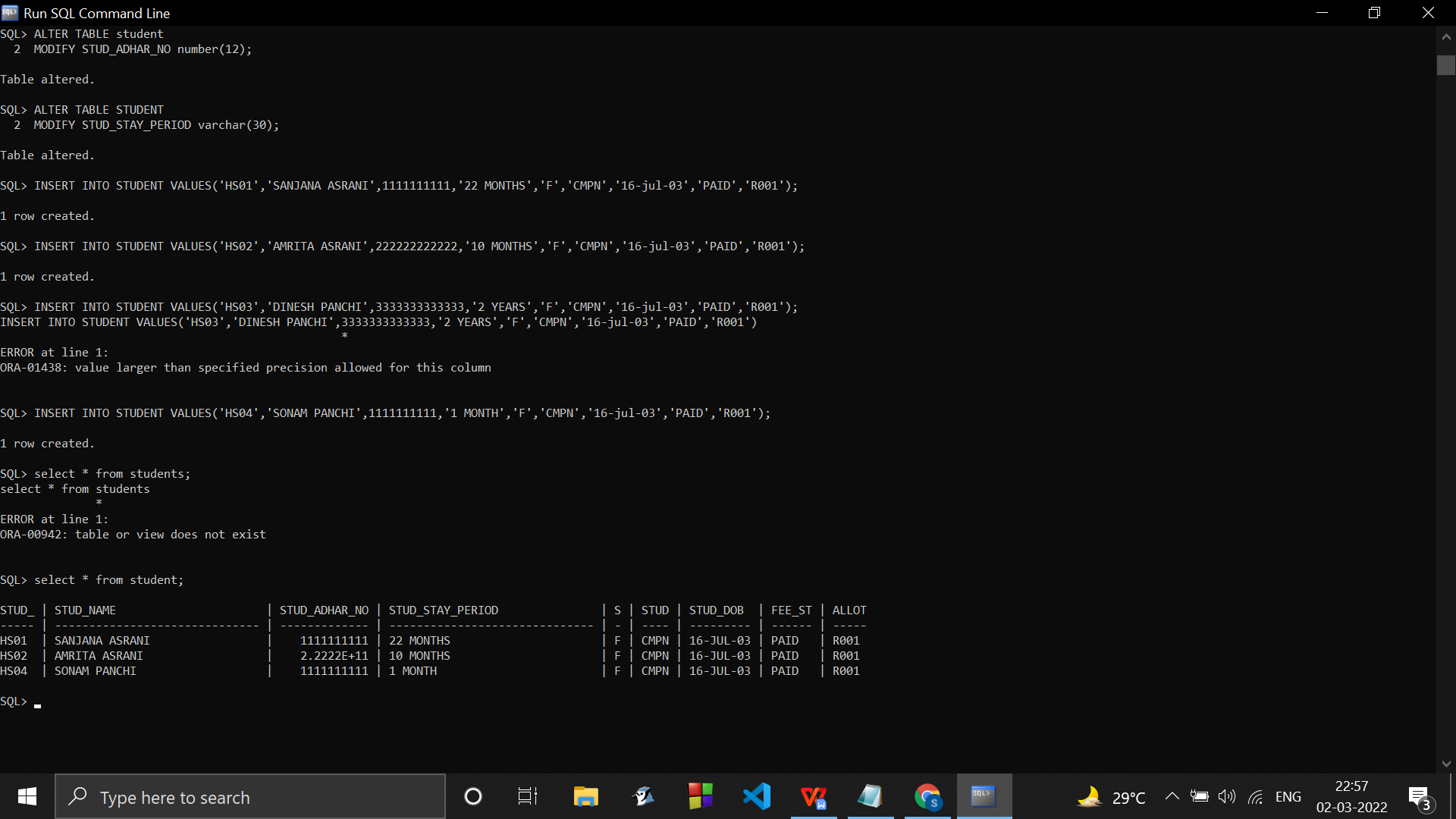
.alter table student to have DATATYPE VARCHAR(30) IN STAY PERIOD.

ALTER TABLE student

MODIFY STUD\_ADHAR\_NO number(12);

ALTER TABLE STUDENT

MODIFY STUD\_STAY\_PERIOD varchar(30);

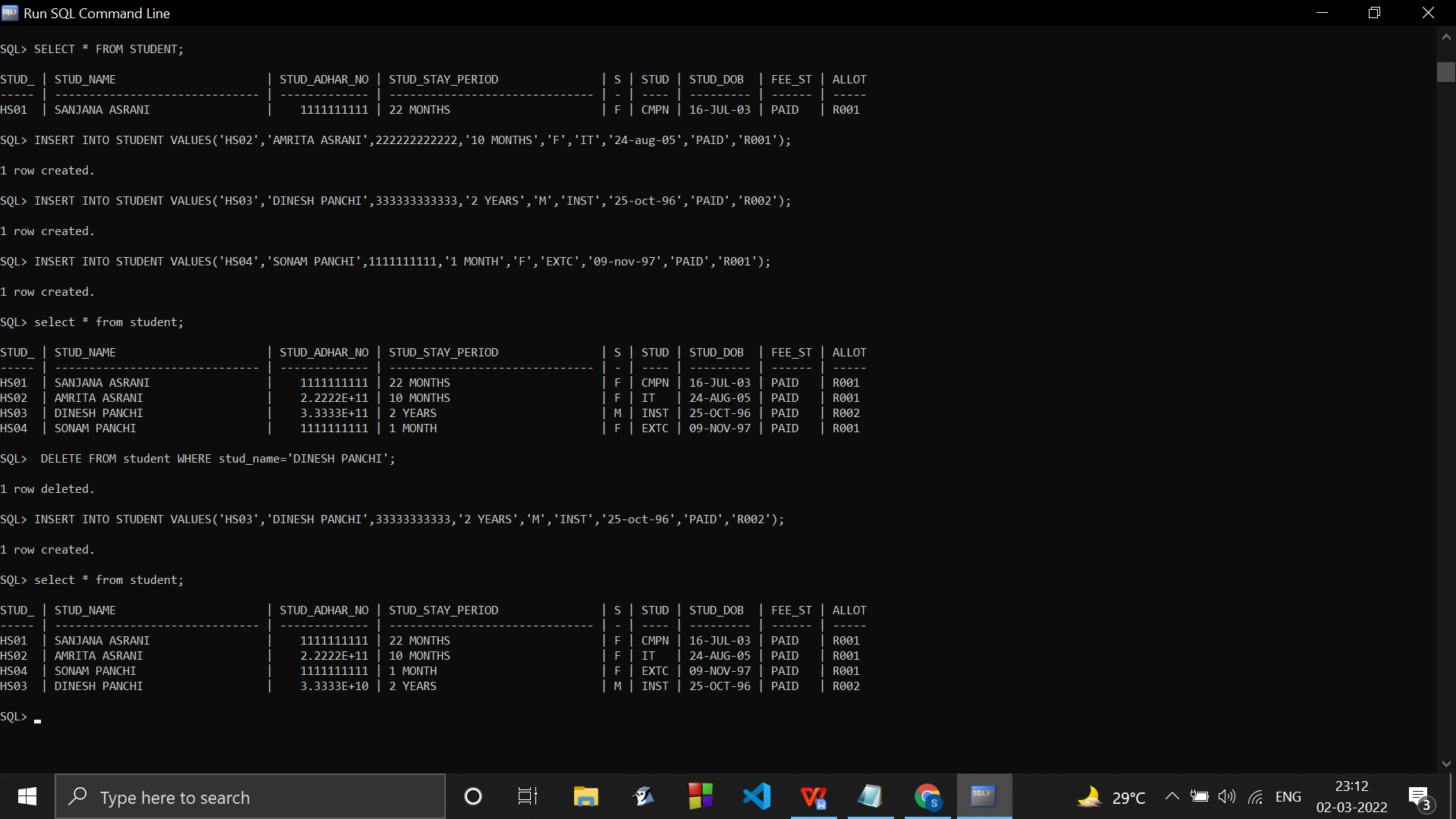


INSERT INTO STUDENT VALUES('HS01','SANJANA ASRANI',1111111111,'22 MONTHS','F','CMPN','16-jul-03','PAID','R001');

INSERT INTO STUDENT VALUES('HS02','AMRITA ASRANI',222222222222,'10 MONTHS','F','IT','24-aug-05','PAID','R001');

INSERT INTO STUDENT VALUES('HS03','DINESH PANCHI',333333333333,'2 YEARS','M','INST','25-oct-96','PAID','R002');

INSERT INTO STUDENT VALUES('HS04','SONAM PANCHI',1111111111,'1 MONTH','F','EXTC','09-nov-97','PAID','R001');



//VISIT\_NO AUTO INCREMENT(IDENTITY)

VISIT\_NO int NOT NULL AUTO\_INCREMENT PRIMARY KEY,

CREATE TABLE VISITOR

(

VISIT\_NO NUMBER(5) PRIMARY KEY,

VISITOR\_ID VARCHAR(5) ,

VISITOR\_NAME VARCHAR(30) NOT NULL,

IN\_TIME VARCHAR(9),

OUT\_TIME VARCHAR(9),

VISIT\_DATE DATE,

CURRENT\_TIME VARCHAR(20),

CURRENT\_DATE VARCHAR(20),

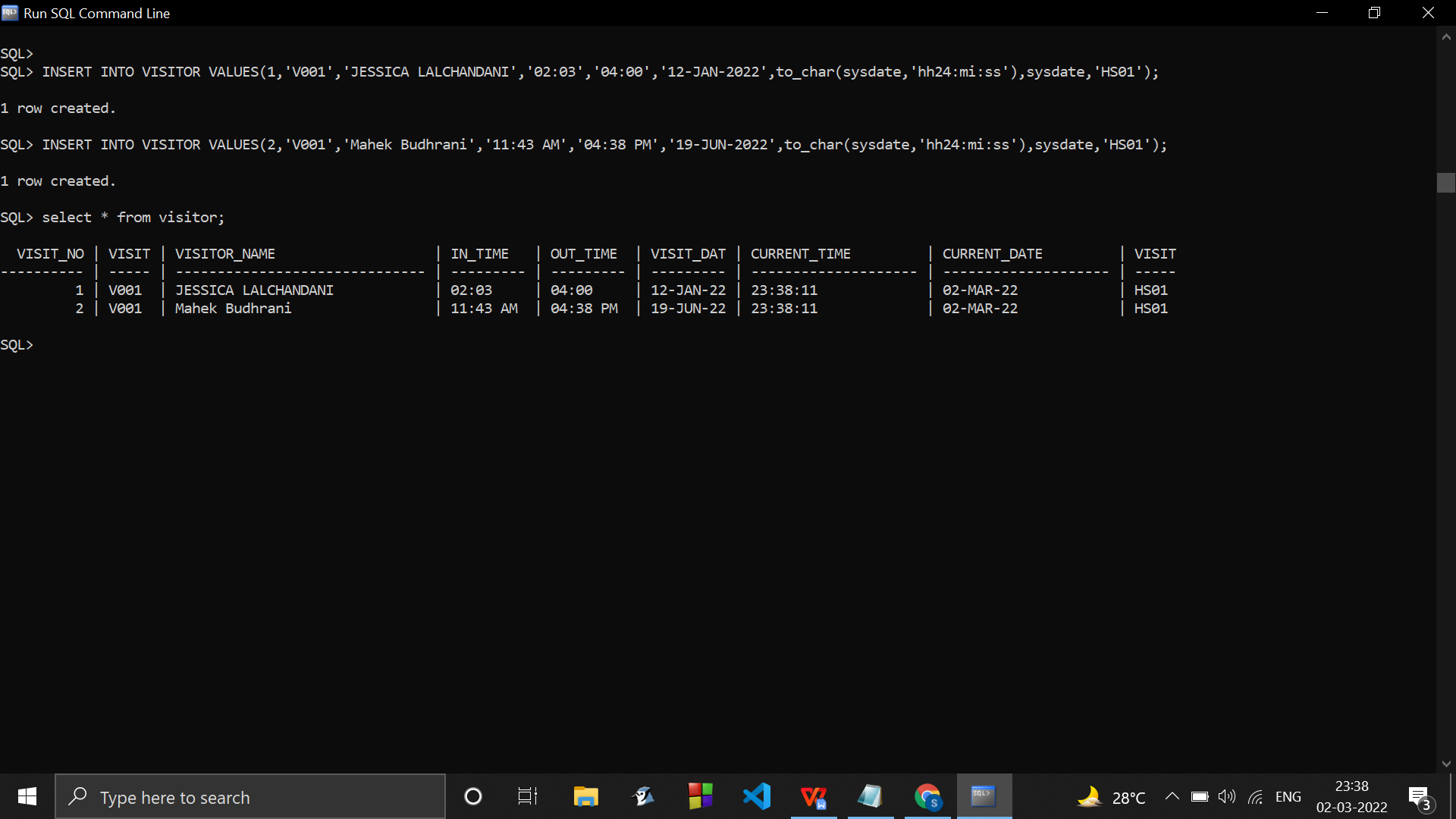
VISITING\_STUD\_ID VARCHAR(5) NOT NULL,

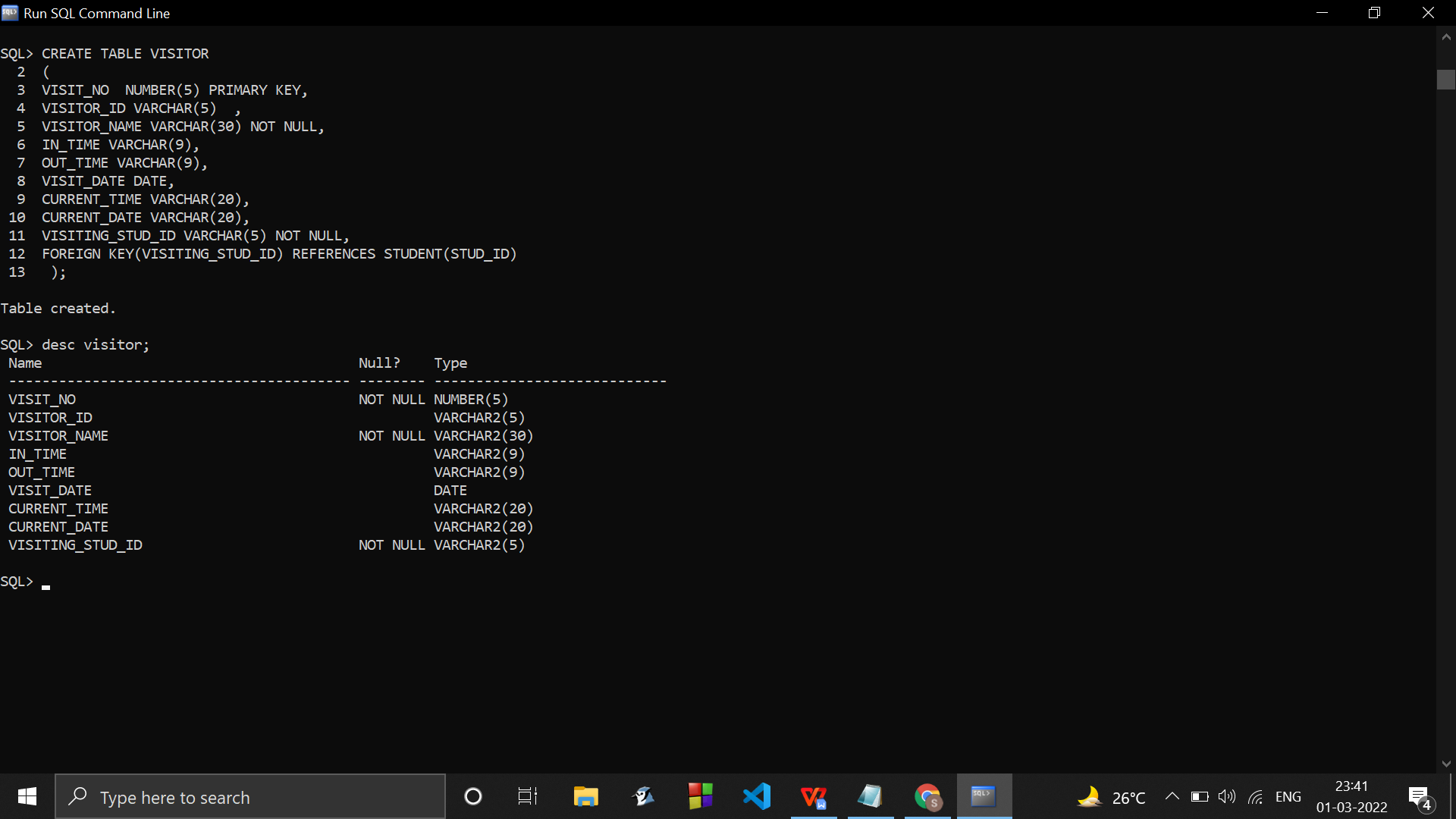
FOREIGN KEY(VISITING\_STUD\_ID) REFERENCES STUDENT(STUD\_ID)

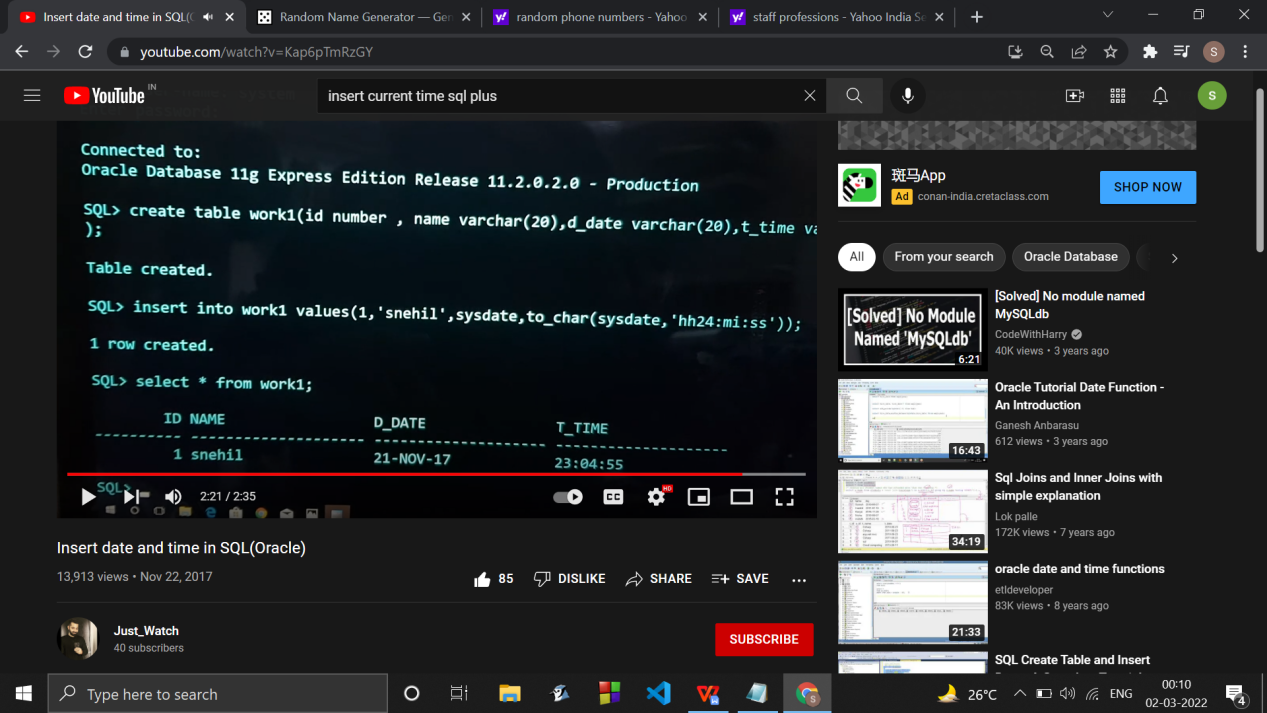
);

INSERT INTO VISITOR VALUES(1,'V001','JESSICA LALCHANDANI','02:03','04:00','12-JAN-2022',to\_char(sysdate,'hh24:mi:ss'),sysdate,'HS01');

INSERT INTO VISITOR VALUES(2,'V001','Mahek Budhrani','11:43 AM','04:38 PM','19-JUN-2022',to\_char(sysdate,'hh24:mi:ss'),sysdate,'HS01');







alter table visitor to have auto increment visit no.

ALTER TABLE visitor

MODIFY visit\_no varchar(20) IDENTITY(1, 1);

CREATE TABLE ROOM

( ROOM\_ID VARCHAR(5) PRIMARY KEY,

ROOM\_NO NUMBER(5) ,

ROOM\_OCCUPIED VARCHAR(3),

MONTHLY\_BILL NUMBER(5),

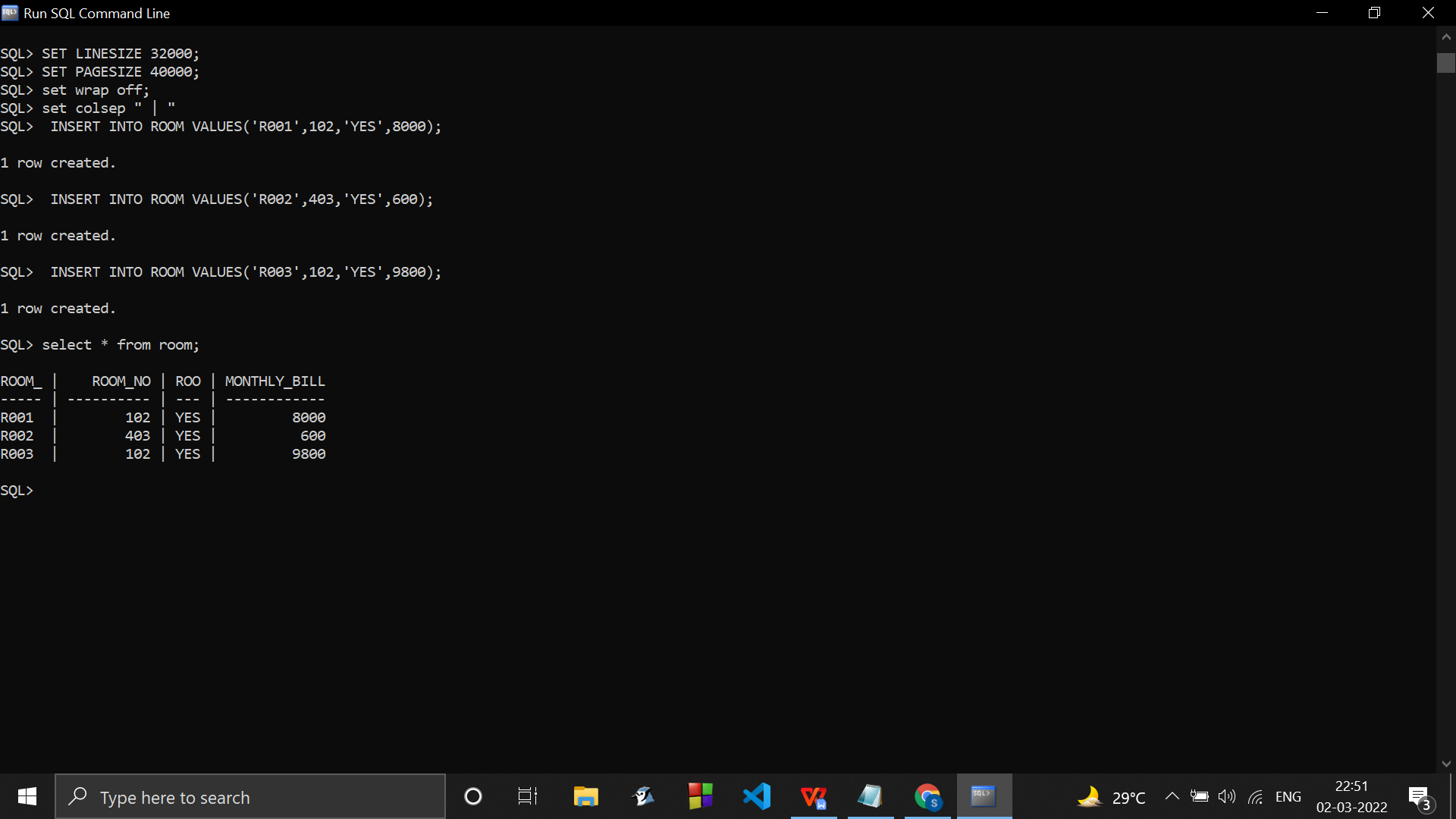
{ID\_OF\_STUDENTS\_IN\_A\_ROOM},

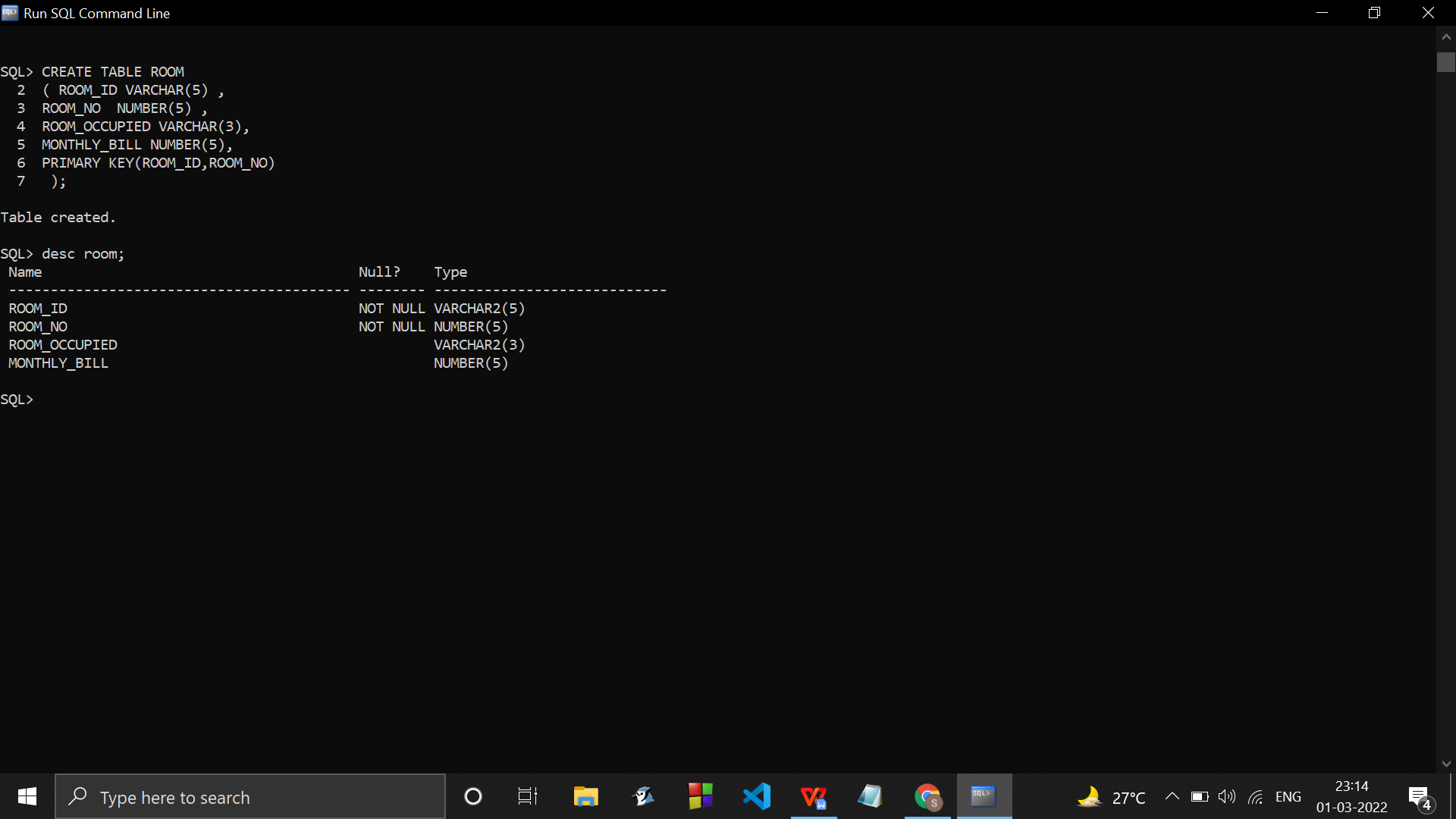
);

INSERT INTO ROOM VALUES('R001',102,'YES',8000);

INSERT INTO ROOM VALUES('R002',403,'YES',600);

INSERT INTO ROOM VALUES('R003',102,'YES',9800);





CREATE TABLE ID\_OF\_STUDENTS\_IN\_A\_ROOM

( room\_id VARCHAR(5) NOT NULL,

STUDENT\_1\_ID VARCHAR(5),

STUDENT\_2\_ID VARCHAR(5),

STUDENT\_3\_ID VARCHAR(5),

STUDENT\_4\_ID VARCHAR(5),

PRIMARY KEY(room\_id),

FOREIGN KEY(room\_id) REFERENCES ROOM(ROOM\_ID),

FOREIGN KEY(STUDENT\_1\_ID) REFERENCES STUDENT (STUD\_ID),

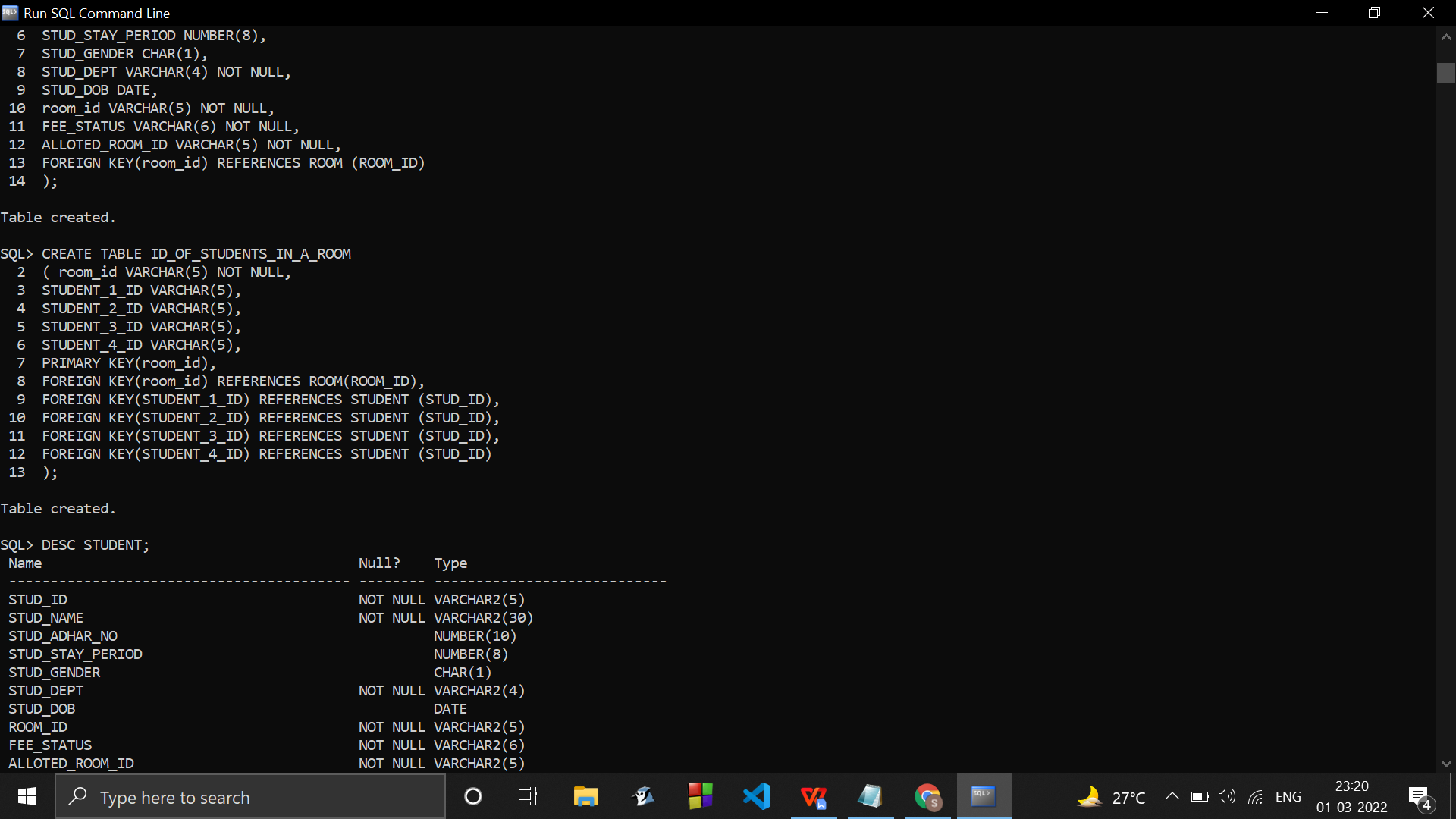
FOREIGN KEY(STUDENT\_2\_ID) REFERENCES STUDENT (STUD\_ID),

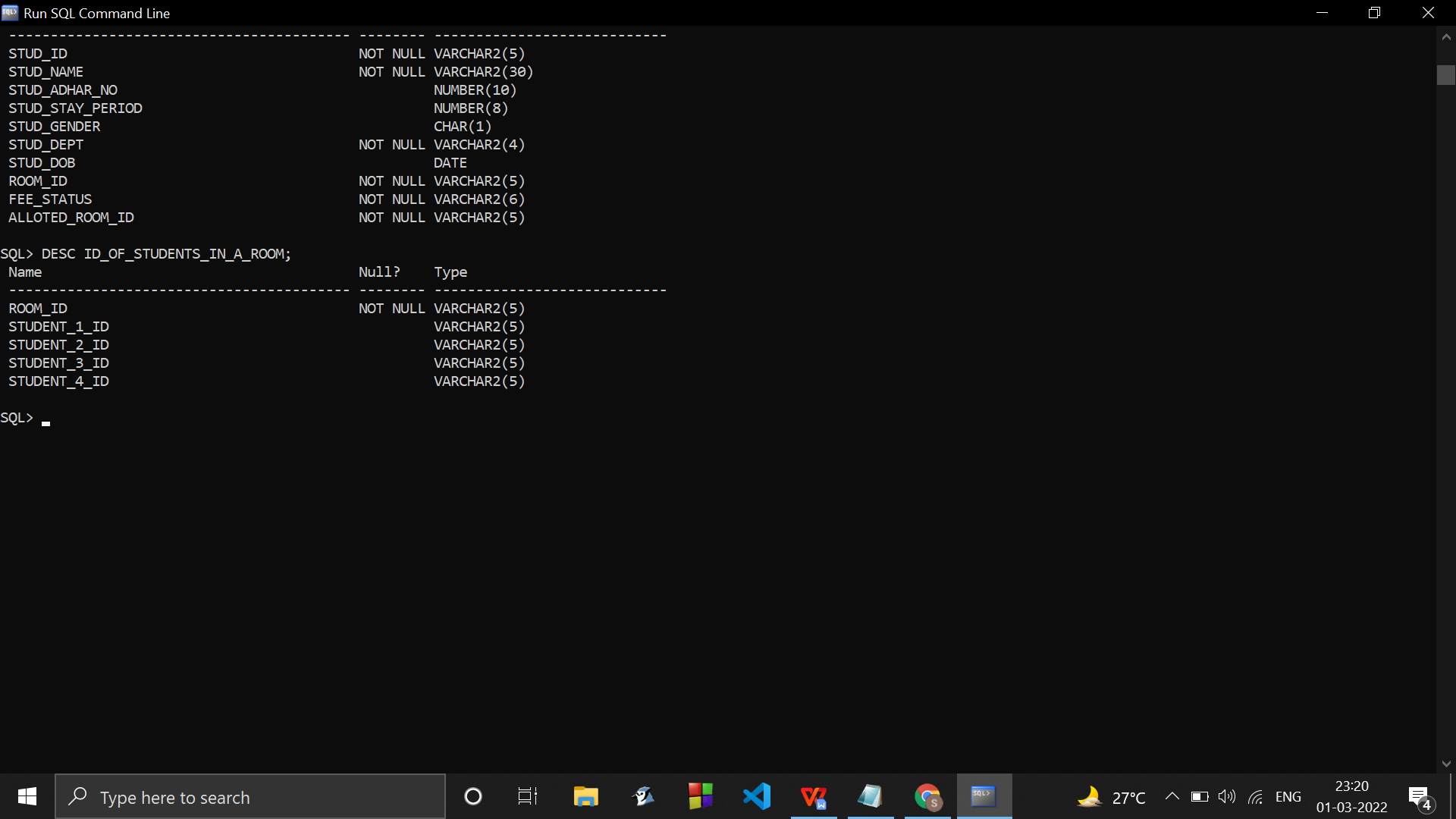
FOREIGN KEY(STUDENT\_3\_ID) REFERENCES STUDENT (STUD\_ID),

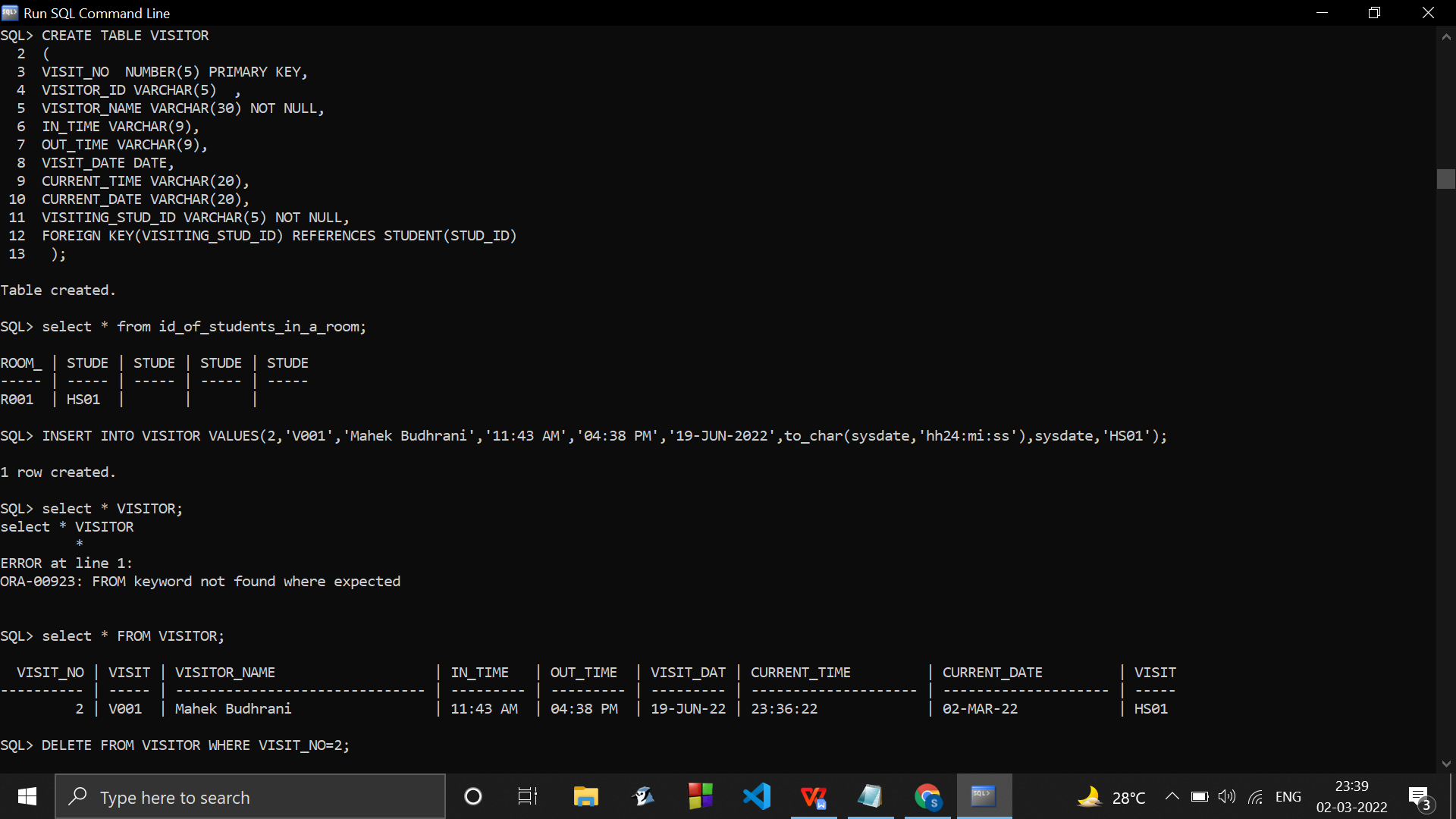
FOREIGN KEY(STUDENT\_4\_ID) REFERENCES STUDENT (STUD\_ID)

);

INSERT INTO ID\_OF\_STUDENTS\_IN\_A\_ROOM VALUES('R001','HS01',NULL,NULL,NULL);







CREATE TABLE LOOKS\_AFTER

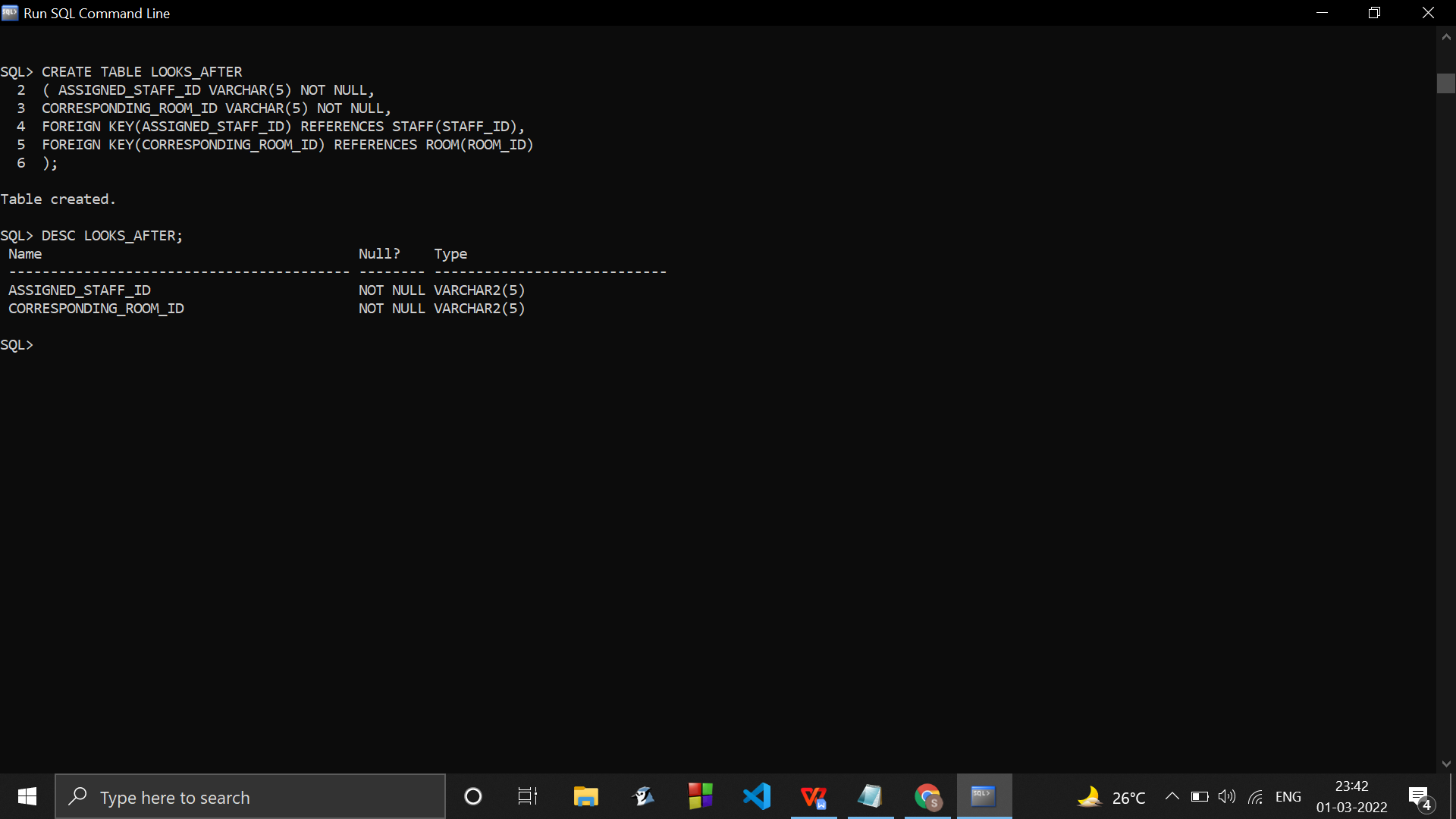
( ASSIGNED\_STAFF\_ID VARCHAR(5) NOT NULL,

CORRESPONDING\_ROOM\_ID VARCHAR(5) NOT NULL,

FOREIGN KEY(ASSIGNED\_STAFF\_ID) REFERENCES STAFF(STAFF\_ID),

FOREIGN KEY(CORRESPONDING\_ROOM\_ID) REFERENCES ROOM(ROOM\_ID)

);

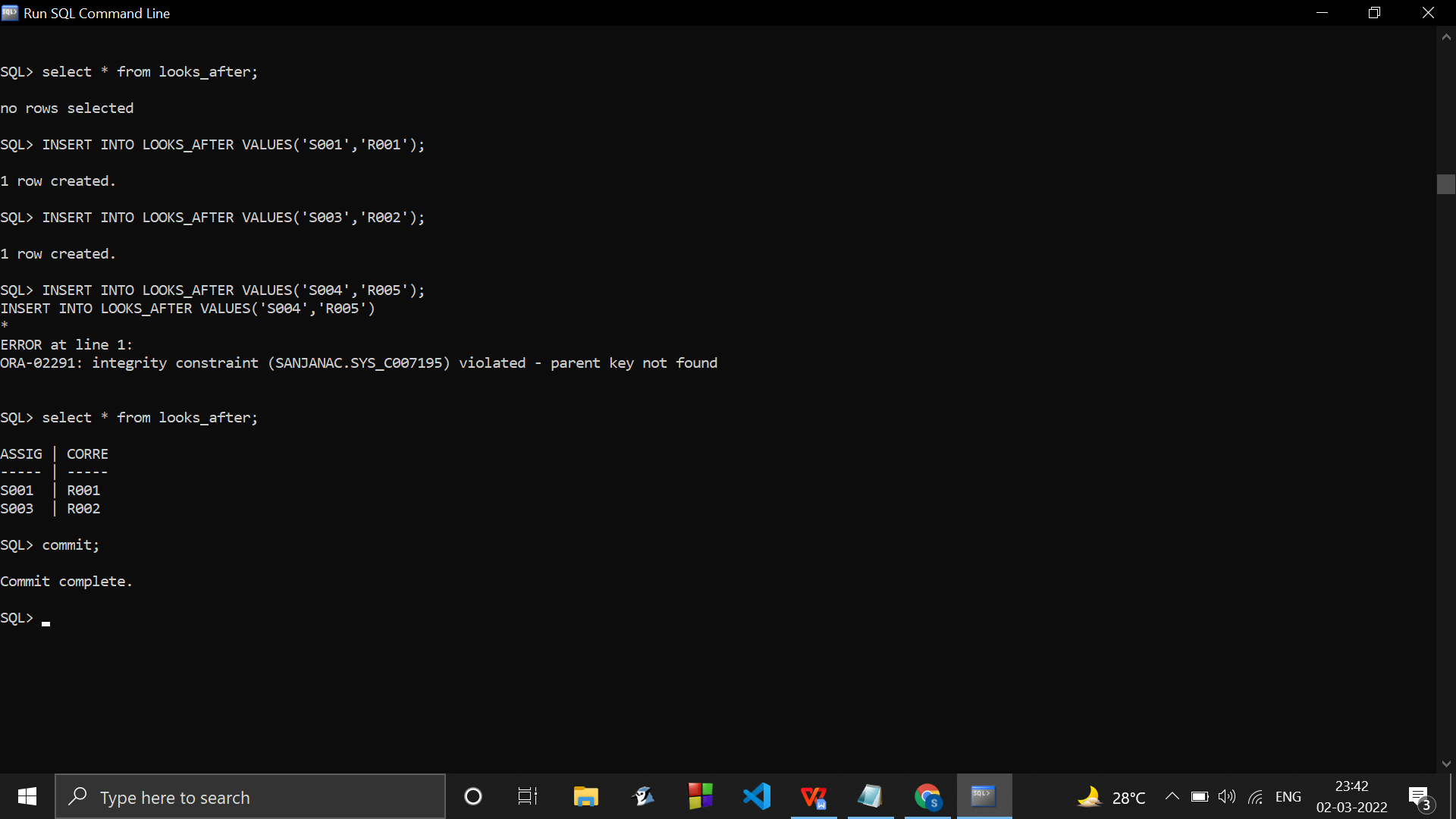


//MAX CAPACITY OF A ROOM IS 4 STUDENTS.

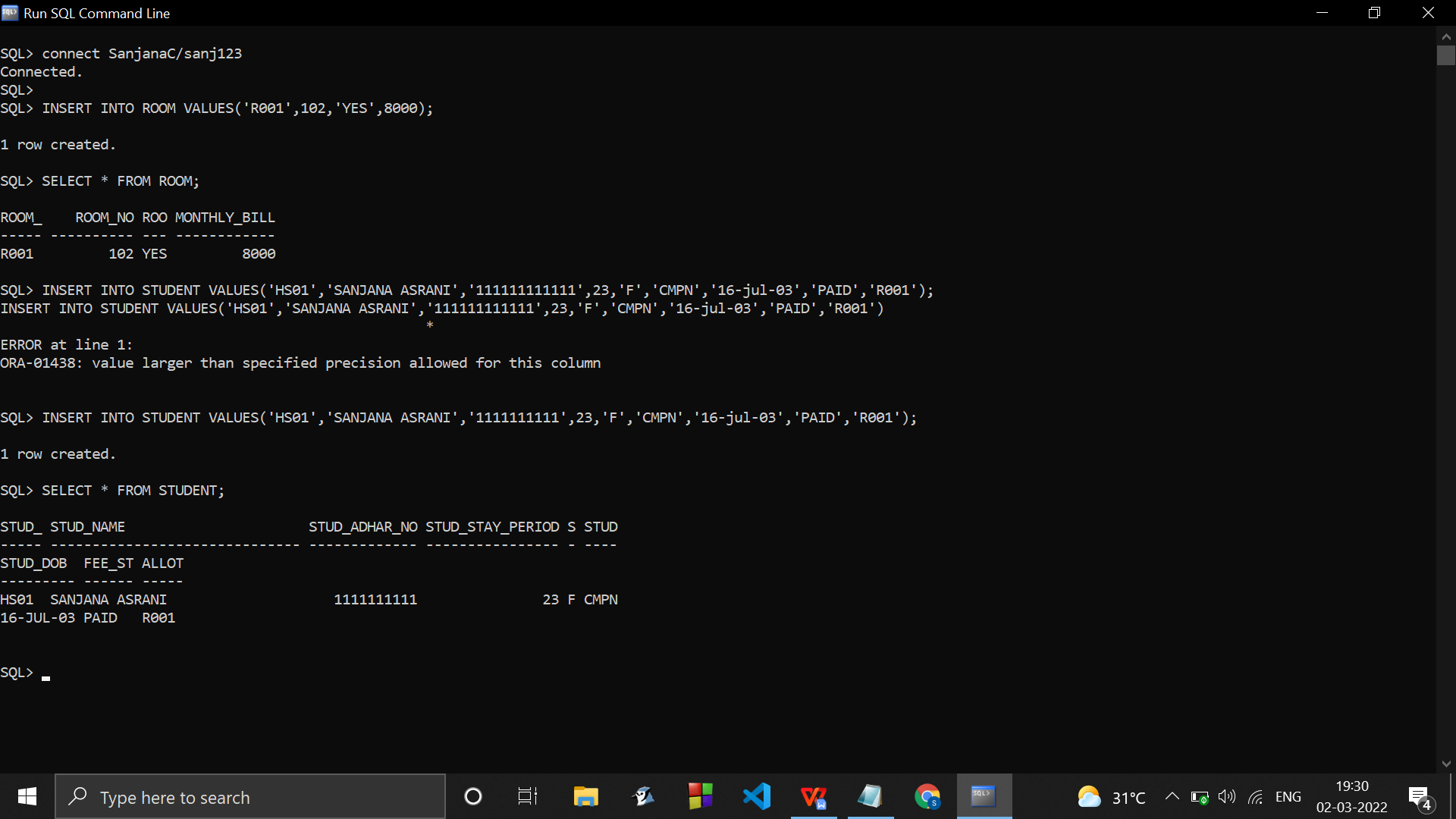
INSERT INTO LOOKS\_AFTER VALUES('S001','R001');

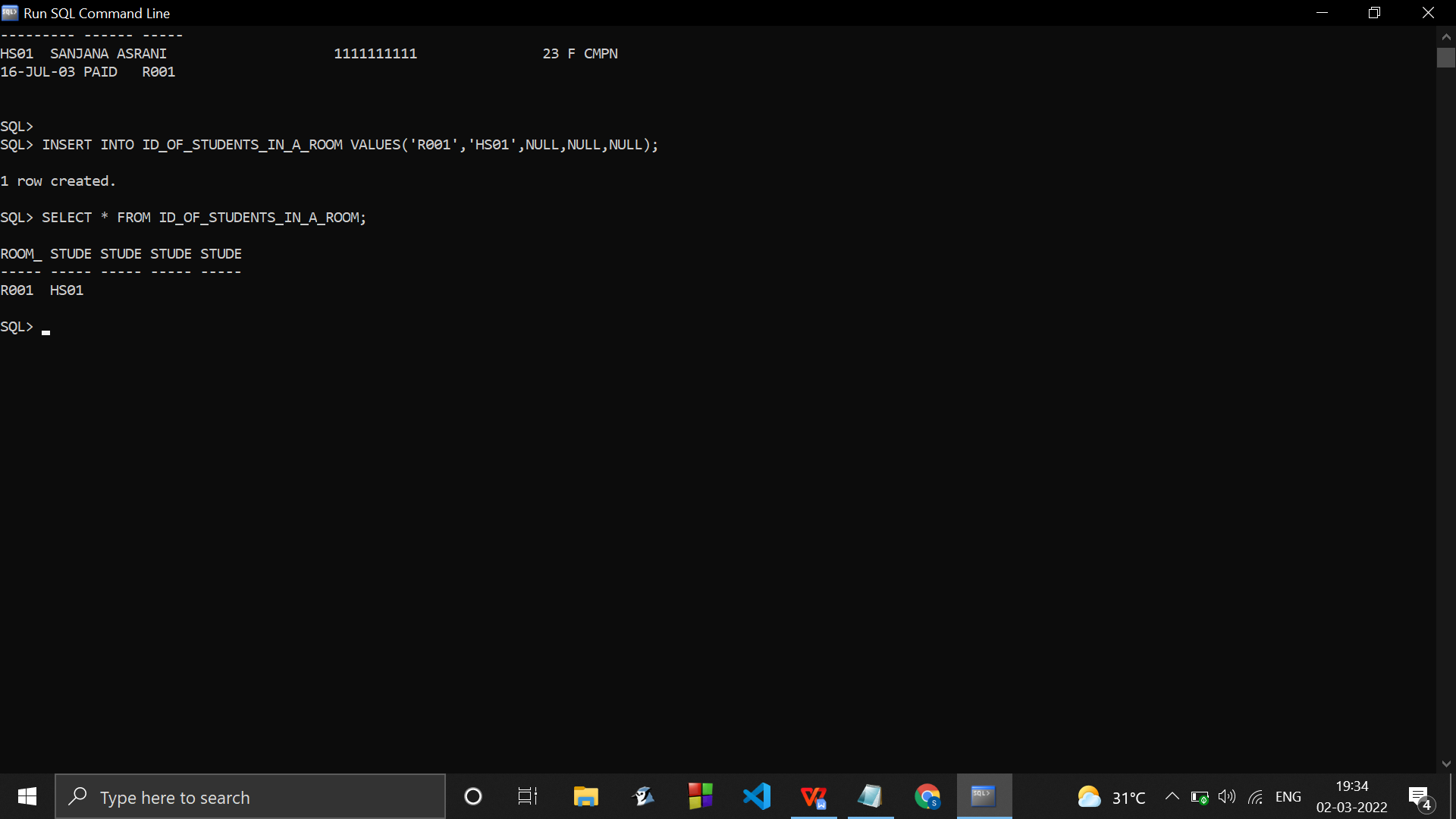
INSERT INTO LOOKS\_AFTER VALUES('S003','R002');

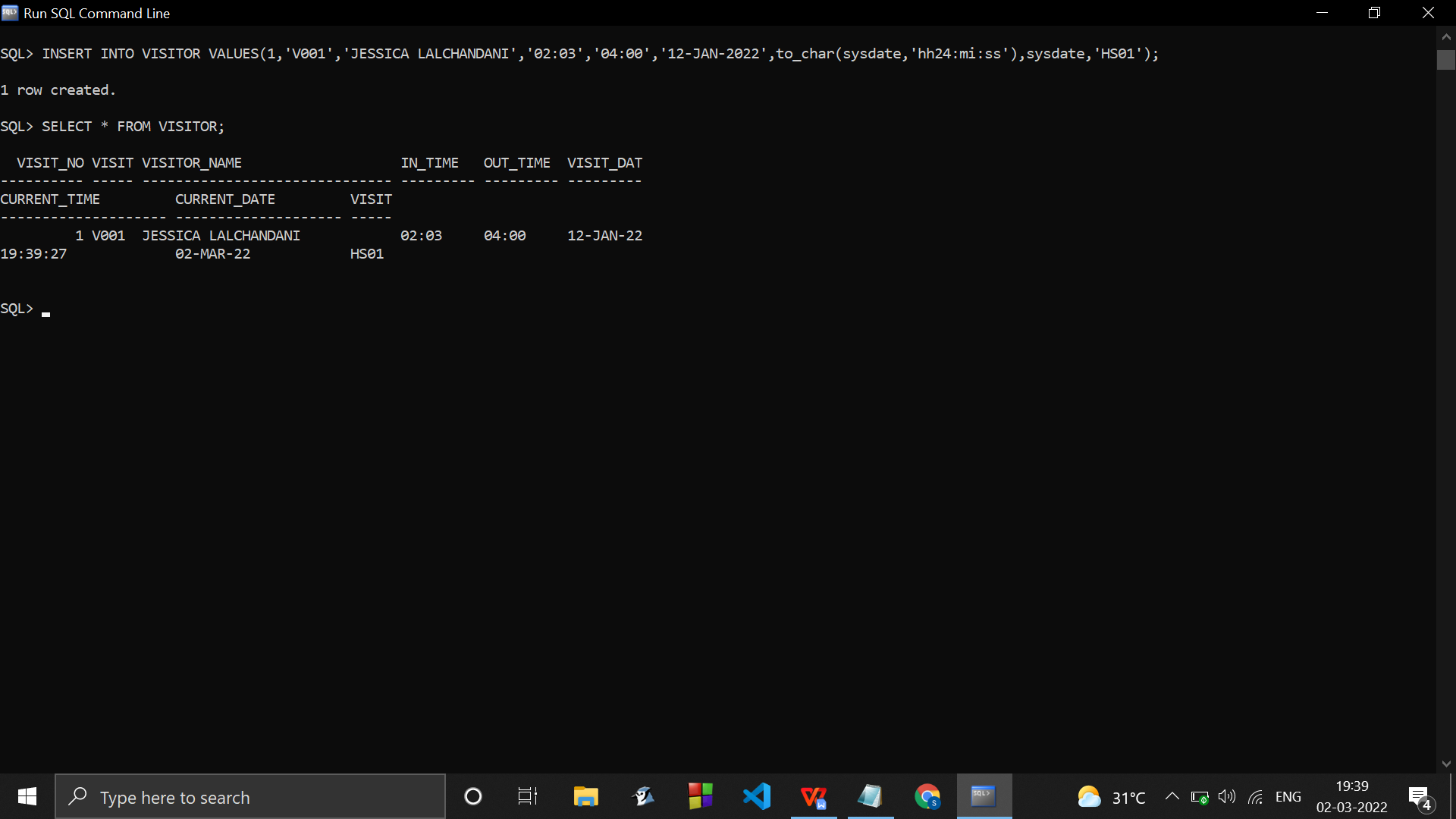
INSERT INTO LOOKS\_AFTER VALUES('S004','R005');

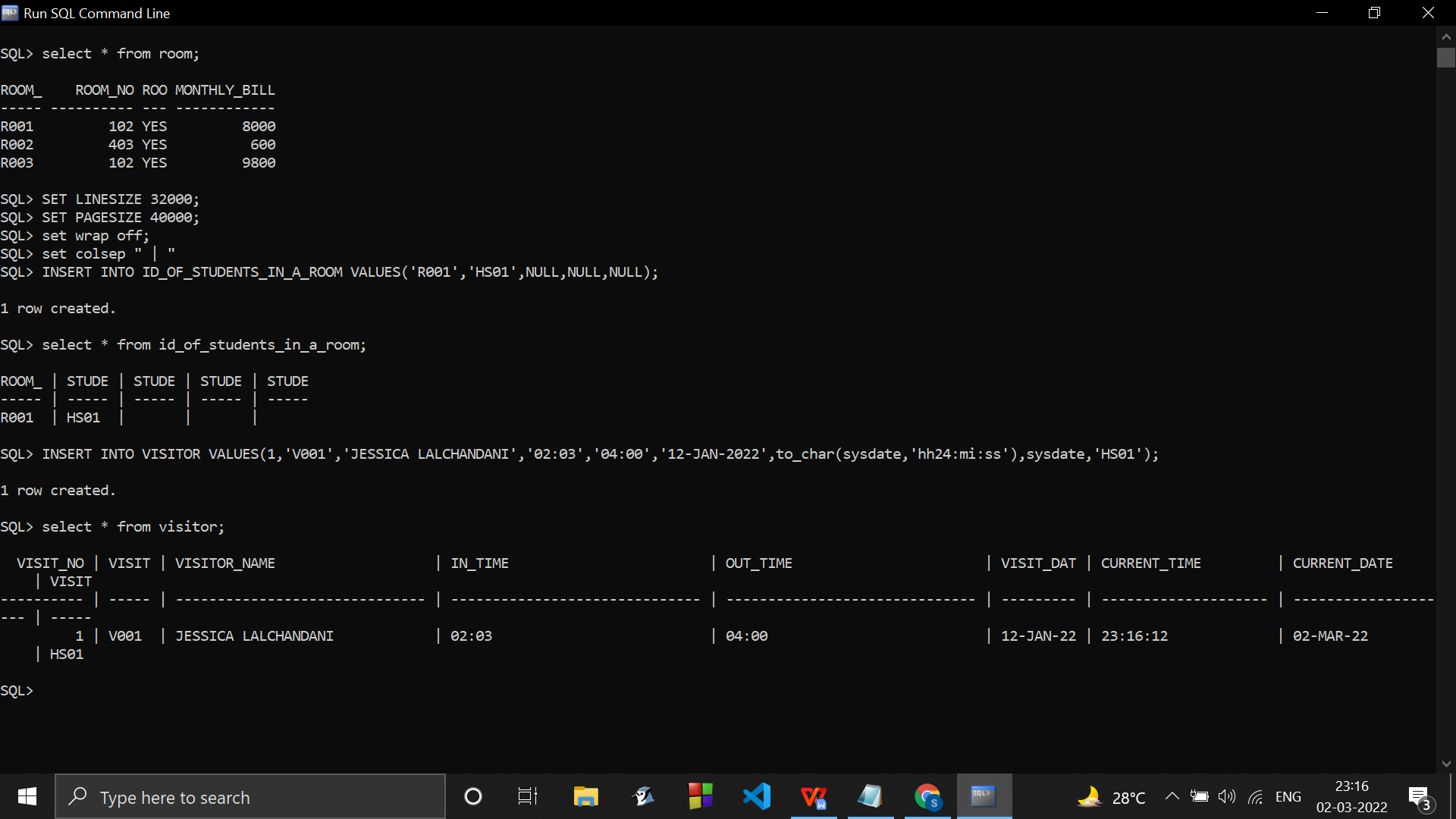


TRIALSS





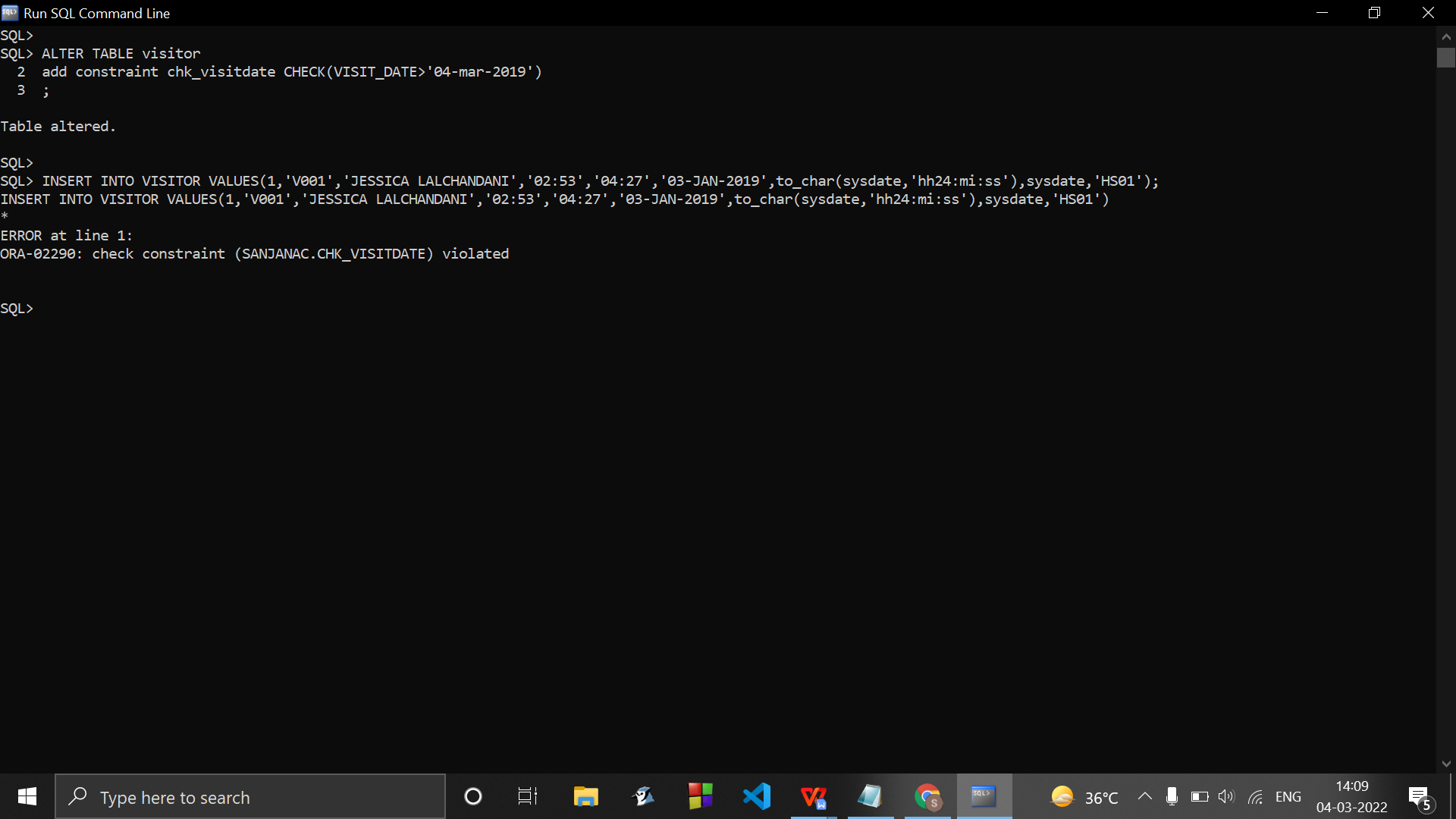




CHANGING SOME CONSTRAINTS/DOMAINS OF SOME ATTRIBUTES

ALTER TABLE visitor

add constraint chk\_visitdate CHECK(VISIT\_DATE>'04-mar-2019');



ALTER TABLE visitor

DROP CONSTRAINT chk\_visitdate;

….…………………………………………………………………………………………………………………………………………………….

….……………………………………………………………………………………………………………………………………………….…...….…………………………………………………………………………………………………………………………………………………….

**.....to print the id of students in the same room.…**

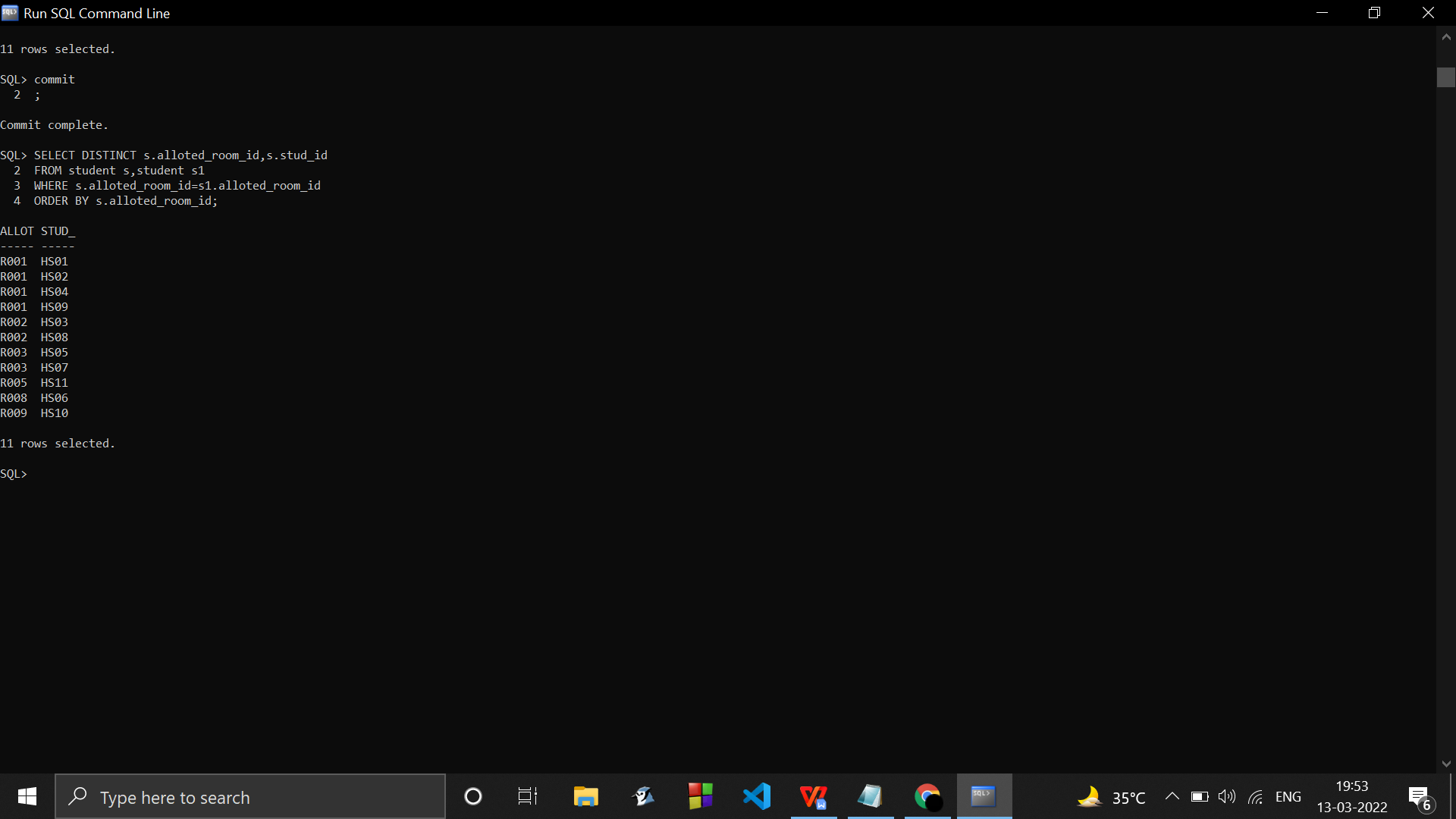
**…..create a view/table and copy records of above table in that…(id\_of\_students\_in\_a\_room)….**

**SELECT DISTINCT s.alloted\_room\_id,s.stud\_id**

**FROM student s,student s1**

**WHERE s.alloted\_room\_id=s1.alloted\_room\_id**

**ORDER BY s.alloted\_room\_id;**



**.....to print the id and name of students in the same dept.…**

**SELECT DISTINCT s.stud\_id,s.stud\_name,s.stud\_dept**

**FROM student s,student s1**

**WHERE s.stud\_dept=s1.stud\_dept**

**ORDER BY s.stud\_dept;**

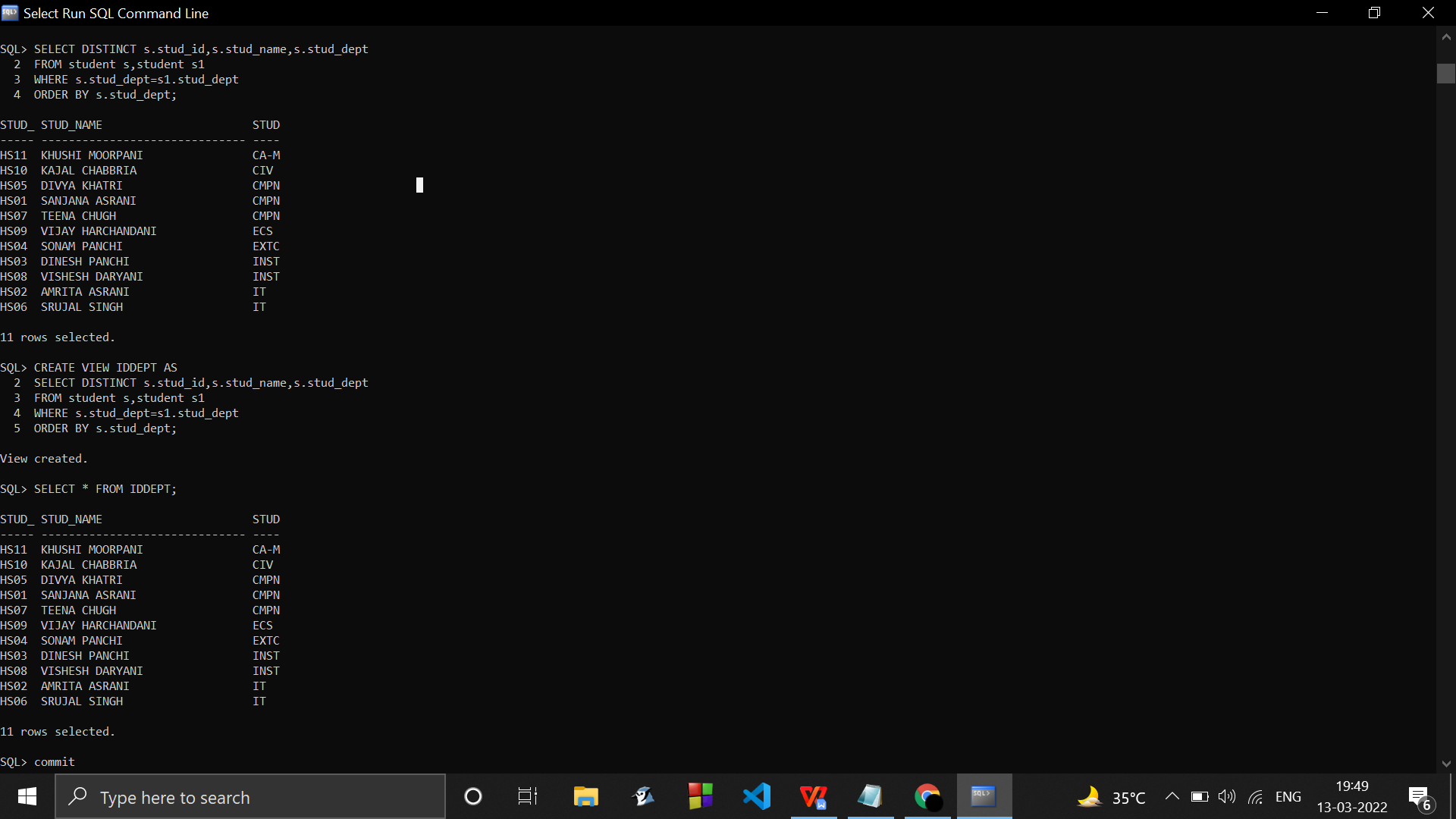
**CREATE VIEW IDDEPT AS**

**SELECT DISTINCT s.stud\_id,s.stud\_name,s.stud\_dept**

**FROM student s,student s1**

**WHERE s.stud\_dept=s1.stud\_dept**

**ORDER BY s.stud\_dept;**



SQL> SELECT DISTINCT s.stud\_id,s.stud\_name,s.stud\_dept

2 FROM student s,student s1

3 WHERE s.stud\_dept=s1.stud\_dept

4 AND s.stud\_id!=s1.stud\_id

5 ORDER BY s.stud\_dept;

