AMERICAN INTERNATIONAL UNIVERSITY–BANGLADESH

(AIUB)

Introduction to Database

Semester: Fall 2022-23

"Rent Management System"

Group

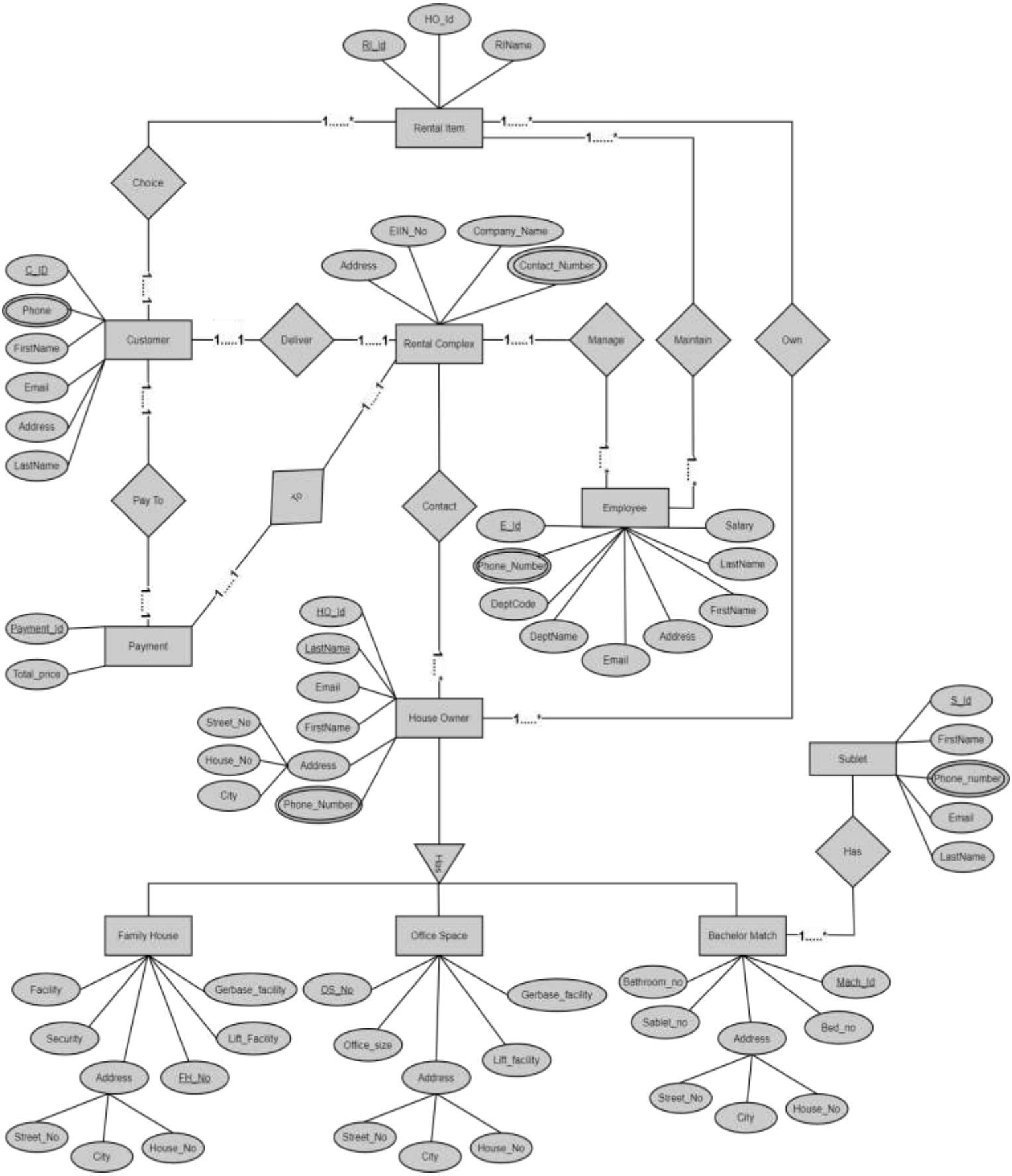
01

Name	ID
ONIK, MD. SABBIR HOSSAIN	22-46712-1
ISLAM, RAIHANUL	22-46680-1
NINE, MALEK AL JULKAR	22-46702-1
NURSHED, NUR-E HABIB	22-46702-1

Scenario:

In a House Rent Management System Customer will choice their suitable houses that House Owners put in the management system.
In House Rent Management System, a company will be identified by EIIN Number. House Rent Management System Manage Many Employees. Employees can be identified by Eid Number. Employees have Department, Salary, Name. Employee Maintain Rental Items. Rental Item has Unique RI_id. Customer has CU_id, Firstname, Lastname, Email, Address. Customer choice Rental Item as they Want. Whatever Rental Item Customer Chose it will deliverd from House Rent Management System. Customer pay Payment. To identify payment individually Payment has Payment_id. This Payment goes to house Rent Management System. House Owners Contact House Rent Management System to put up their house for rent. House Owner has uniquely identified HO_id. It also has Address, FirstName, LastName, Email. House Owner has 3 type of houses Family House, Office Space, Bachelor Mech. Each Rental Item has Unique FO_id, OS_id, BM_id. Bachelor Mech has many Sublets. Sublet has S_id to uniquely identify it.

ER-Diagram:


HO_Id
RI_Id
RIName
Rental Item
1.....*
Choice
1.....1
C_ID
Phone
FirstName
Email
Address
LastName
Customer
Deliver
EIN_No
Company_Name
Address
Contact_Number
Rental Complex
Manage
Maintain
Own
Pay To
Payment_Id
Total_price
Payment
Contact
Employee
E_Id
Salary
Phone_Number
LastName
DeptCode
FirstName
DeptName
Address
Email
HO_Id
LastName
Email
FirstName
Street_No
House_No
City
Address
Phone_Number
House Owner
S_Id
FirstName
Phone_number
Email
LastName
Sublet
Has
Family House
Office Space
Bachelor Match
Facility
Gerbase_facility
Security
Lift_Facility
Address
FH_No
Street_No
City
House_No
OS_No
Gerbase_facility
Office_size
Lift_facility
Address
Street_No
City
House_No
Bathroom_no
Mach_Id
Sablet_no
Bed_no
Address
Street_No
City
House_No

Normalization:

UNF: RENTAL COMPLEX MANAGE EMPLOYEE

MANAGE (EIIN_NO, AUTHORITY, PHONE_NO, ADDRESS, E_ID, CITY, EMAIL, FIRST_NAME, LAST_NAME, DEPT_NAME, DEPT_CODE, SALARY)

1NF:

- PHONE_NO IS A MULTIVALUED ATTRIBUTE.

MANAGE (EIIN_NO, AUTHORITY, ADDRESS, E_ID, CITY, EMAIL, FIRST_NAME, LAST_NAME, DEPT_NAME, DEPT_CODE, SALARY)

2NF:

1. PHONE_ID, PHONE_NO.
2. EIIN_NO, AUTHORITY, ADDRESS, EMAIL, PHONE_ID.
1. E_ID, PHONE_ID, CITY, EMAIL, FIRST_NAME, LAST_NAME, DEPT_CODE, DEPT_NAME, SALARY.

3NF:

1. PHONE _ ID, PHONE,
2. EIIN _ NO, PHONE ID, AUTHORITY, ADDRESS, EMAIL.
3. NID, FIRST_NAME, LAST_NAME.
4. E_ID, DEPT_CODE, DEPT_NAME.
5. E_ID, PHONE _ ID, CITY, EMAIL, NID, SALARY.

UNF: RENTAL COMPLEX CONTACTED BY HOUSE OWNER

CONTACT (EIIN_NO, AUTHORITY_NAME, FIRST_NAME, LAST_NAME, CITY, HOUSE_NO, STREET_NO, POST_NO, EMAIL)

1NF:

- PHONE IS A MULTI VALUED ATTRIBUTE.

CONTACT (EIIN_NO, AUTHORITY, FIRST_NAME, LAST_NAME, CITY, HOUSE_NO, STREET_NO, POST_NO, EMAIL ADDRESS_ID, HO-ID)

2NF:

1. PHONE _ID, PHONE_NO
2. EIIN _ NO, AUTHORITY_NAME, ADDRESS_ID.
3. HOUSE_ID, O_FNAME, O_LNAME, HOUSE –_NO, STREET-NO, POST-NO,

3NF:

1. PHONE _ ID, PHONE_NO.
2. EIIN _ NO, PHONE_ID, AUTHORITY_NAME, ADDRESS_ID.
3. NID, FIRST_NAME, LAST_NAME.

4. O_ID, CITY, HOUSE_NO, STREET_NO, POST_NO, EMAIL.
5. HO_ID, NID, PHONE_NO, EMAIL.

UNF: RENTAL COMPLEX DELIVER TO CUSTOMER

DELIVER(C0_ID, PHONE, C_NAME_EMAIL, ADDRESS, EIIN_NO, AUTHORITY_NAME, PHONE_NO, ADDRESS)

1NF:

- PHONE_NO IS A MULTIVALUED ATTRIBUTE.

DELIVER(C0_ID, C_NAME_EMAIL, ADDRESS, EIIN_NO, AUTHORITY_NAME, ADDRESS)

2NF:

1. PHONE _ID, PHONE
2. EIIN _ NO, AUTHORITY, ADDRESS, PHONE ID .
3. C_ID,EMAIL, CITY, CFRONE,CFNAME,CLNAME, PHONE ID .

3NF:

1. PHONE _ ID, PHONE,
2. EIIN _ NO, AUTHORITY, ADDRESS, PHONE ID .
3. N_ID,C FMAME, C LNAME.
4. CO_ID, NID, CITY, PHONE_ID

UNF: CUSTOMER PAYS PAYMENT

PAY(C0_ID, PHONE, C_NAME_EMAIL, ADDRESS,PAYMENT_ID, PRICE)

1NF:

- PHONE_NO IS A MULTIVALUED ATTRIBUTE.

PAY(C0_ID, C_NAME_EMAIL, ADDRESS,PAYMENT_ID, PRICE)

2NF:

1. PHONE _ID, PHONE.
2. PAYMENT_ID, PRICE, PAYMENT METHED.
3. C_ID,EMAIL, CITY, CFRONE, CFNAME, CLNAME, PHONE ID.

3NF:

1. PHONE _ID, PHONE.
2. PAYMENT_ID, PRICE, PAYMENT METHED.
3. NID, C FMAME, C LNAME.
4. CO_ID, N_ID, PHONE _ID, EMAIL,CITY.

UNF: PAYMENT PAY TO RENTAL COMPLEX

PAY (PAYMENT_ID, PRICE, EIIN_NO, AUTHORITY_NAME, PHONE_NO, ADDRESS)

1NF:

- PHONE_NO IS A MULTIVALUED ATTRIBUTE.

  PAY(PAYMENT_ID, PRICE, EIIN_NO, AUTHORITY_NAME, ADDRESS)

2NF:

1. PHONE _ID, PHONE.
2. EIIN _ NUM, AUTHORITY, ADDRESS, EMAIL .
3. PAYMENT_ID, PRICE, PAYMENT_METHED.

3NF:

- NO NEED FOR 3NF

UNF: BACHELOR MECH HAS SUBLET

HAS (BATHROOM_NO, SUBLET_NO_BED_NO_MECH_ID,S_ID, NAME, PHONE_NO, EMAIL)

1NF:

- PHONE_NO IS A MULTIVALUED ATTRIBUTE.

  HAS (BATHROOM_NO, SUBLET_NO_BED_NO_MECH_ID,S_ID, NAME, EMAIL)

2NF:

1. PHONE _ID, PHONE.
2. MECH_ID, BACHELOR_NO, BAD_NO, SUBLET_NUM, STREET_NO, HOUSE_NO,RENT.
3. SUBLET_ID, FIRST_NAME, LAST_NAME, CITY,EMAIL.

3NF:

1. PHONE _ID, PHONE.
2. MECH_ID, BACHELOR_NO, BAD_NO, SUBLET_NUM.
3. MECH_ID, CITY, STREET,HOUSE_NO.
4. N_ID, S FMAME, S LNAME.
5. SUBLET_ID, NID , CITY, EMAIL, PHONE _ID .

UNF: CUSTOMER CHOICE RENTAL ITEM

CHOICE (C0_ID, PHONE, C_NAME_EMAIL, ADDRESS,RI_ID, HO_NAME, RI_NAME)

1NF:

- PHONE_NO IS A MULTIVALUED ATTRIBUTE.

  CHOICE (C0_ID C_NAME_EMAIL, ADDRESS,RI_ID, HO_NAME, RI_NAME)

2NF:

1. PHONE _ID, PHONE.
2. CU_ID, EMAIL,ADDREASS,CUS_NAME.
3. RI_ID, HO_ID,RI NAME.

3NF:

1. PHONE _ID, PHONE.
2. N_ID, FIRST_NAME, LAST_NAME.
3. C_ID, N_ID, EMAIL, ADDRESS.
4. RI_ID, HO_ID, RI_NAME.

UNF: EMPLOYEE MANAGE RENTAL ITEM

MANAGE(E_ID,PHONE,DEPT_CODE_DEPT_NAME_EMAIL_ADDRESS_SALARY,RI_ID, HO_NAME, RI_NAME)

1NF:

- PHONE_NO IS A MULTIVALUED ATTRIBUTE.

MANAGE(E_ID,DEPT_CODE_DEPT_NAME_EMAIL_ADDRESS_SALARY,RI_ID, HO_NAME, RI_NAME)

2NF:

1. PHONE _ID, PHONE.
2. RI_ID, HO_ID, RI NAME.
3. E_ID, PHONE_ID, NID, CITY, EMAIL, DEPT_CODE.
4. DEPT_CODE, DEPT_NAME, SALARY.
5. N_ID, E FIRST_NAME, LAST_NAME.

3NF:

- NO NEED FOR 3NF

UNF: HOUSE OWNER OWN RENTAL ITEM

OWN(HO_ID, EMAIL, PHONE, ADDRESS, OWNER_NAME, RI_ID, HO_NAME, RI_NAME)

1NF:

- PHONE_NO IS A MULTIVALUED ATTRIBUTE.

OWN(HO_ID, EMAIL, ADDRESS, OWNER_NAME, RI_ID, HO_NAME, RI_NAME)

2NF:

1. PHONE _ID, PHONE

2. RI_ID, HO_ID , RI NAME.

3. HO_ID, FIRST_NAME, LAST_NAME, CITY, HOUSE_NO, EMAIL.

3NF:

1. PHONE _ID, PHONE.
2. RI_ID, HO_ID, RI NAME.
3. HO_ID, EMAIL, N_ID, PHONE_ID.
4. FIRST_NAME, LAST_NAME, NID.
5. CITY, HOUSE_NO, STREET_NO, HO_ID.

TABLE SELECTION:

1. PHONE _ ID, PHONE,
2. EIIN _ NO, PHONE ID, AUTHORITY, ADDRESS, EMAIL.
3. NID, FIRST_NAME, LAST_NAME.
4. E_ID, DEPT_CODE, DEPT_NAME.
5. E_ID, PHONE _ ID, CITY, EMAIL, NID, SALARY.
6. PHONE _ ID, PHONE_NO.
7. EIIN _ NO, PHONE_ID, AUTHORITY_NAME, ADDRESS_ID.
8. NID, FIRST_NAME, LAST_NAME.
9. O_ID, CITY, HOUSE_NO, STREET_NO, POST_NO, EMAIL.
10. HO_ID, NID, PHONE_NO, EMAIL.
11. PHONE _ ID, PHONE,
12. EIIN _ NO, AUTHORITY, ADDRESS, PHONE ID .
13. N_ID,C FMAME, C LNAME.
14. CO_ID, NID, CITY, PHONE_ID
15. PHONE _ID, PHONE.
16. PAYMENT_ID, PRICE, PAYMENT METHED.
17. NID, C FMAME, C LNAME.
18. CO_ID, N_ID, PHONE _ID, EMAIL,CITY.
19. PHONE _ID, PHONE.
20. EIIN _ NUM, AUTHORITY, ADDRESS, EMAIL .
21. PAYMENT_ID, PRICE, PAYMENT_METHED.
22. PHONE _ID, PHONE.
23. MECH_ID, BACHELOR_NO, BAD_NO, SUBLET_NUM.
24. MECH_ID, CITY, STREET,HOUSE_NO.
25. N_ID, S FMAME, S LNAME.
26. SUBLET_ID, NID , CITY, EMAIL, PHONE _ID .
27. PHONE _ID, PHONE.

28. N_ID, FIRST_NAME, LAST_NAME.
29. C_ID, N_ID, EMAIL, ADDRESS.
30. RI_ID, HO_ID, RI_NAME.
31. PHONE _ID, PHONE.
32. RI_ID, HO_ID, RI NAME.
33. E_ID, PHONE_ID, NID, CITY, EMAIL, DEPT_CODE.
34. DEPT_CODE, DEPT_NAME, SALARY.
35. N_ID, E FIRST_NAME, LAST_NAME.
36. PHONE _ID, PHONE.
37. RI_ID, HO_ID, RI NAME.
38. HO_ID, EMAIL, N_ID, PHONE_ID.
39. FIRST_NAME, LAST_NAME, NID.
40. CITY, HOUSE_NO, STREET_NO, HO_ID.

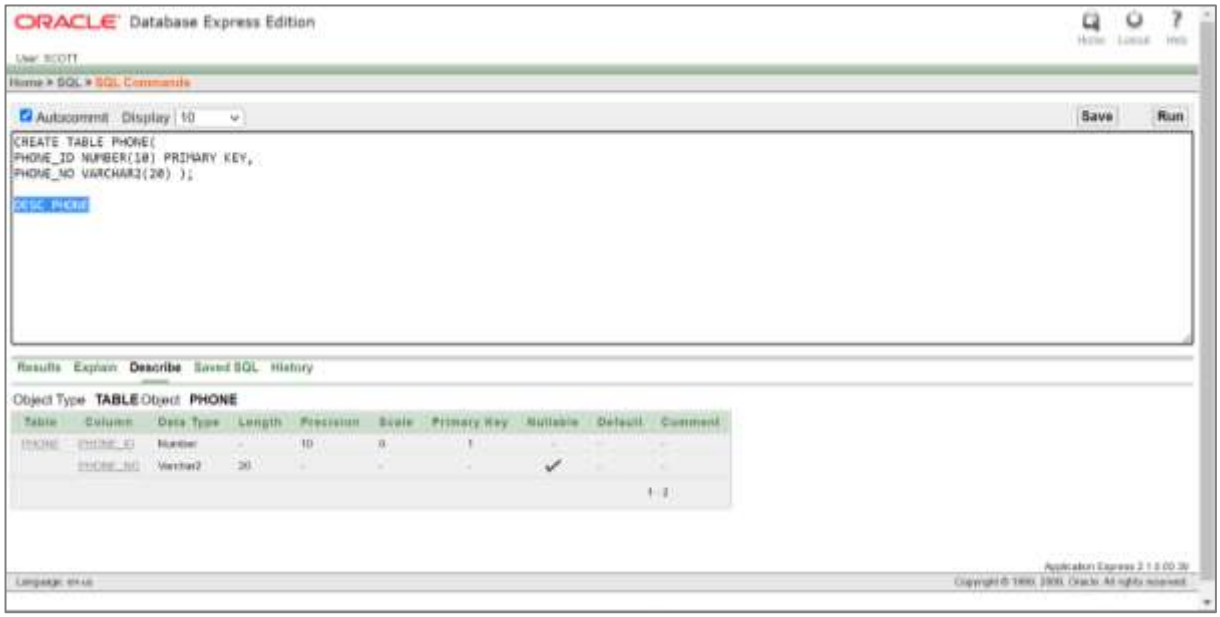
FINAL TABLE:

1. PHONE_ID, PHONE.
2. EIIN__NO, AUTHORITY_NAME, PHONE_ID.
3. NID, FIRST_NAME, LAST_NAME.
4. DEPT_CODE, DEPT_NAME, SALARY.
5. E_ID, CITY, EMAIL, NID, SALARY, DEPT_CODE, PHONE_ID.
6. ADDRESS_ID, HOUSE_NO, STREET_NO, CITY.
7. HO_ID, CITY, EMAIL, ADDRESS_ID, NID, PHONE_ID.
8. CU_ID, EMAIL, CITY, N_ID, PHONE_ID.
9. PAYMENT_ID, PRICE, PAYMENT_METHED.
10. MECH_ID, BATHROOM_NO, BED_NO, SUBLET_NO.
11. SUBLET_ID, CITY, EMAIL, NID, MECH_ID, PHONE_ID.
12. RI_ID, RI NAME, HO_ID.
13. FH_ID, SECUIRITY, BED_NO, LIFT_FACILITY, ADDRESS_ID.
14. OS_ID, OFFICE_SIZE, SECUIRITY, LIFT_FACILITY, GARAGE_FACILITY, ADDRESS_ID.

Table Creation:

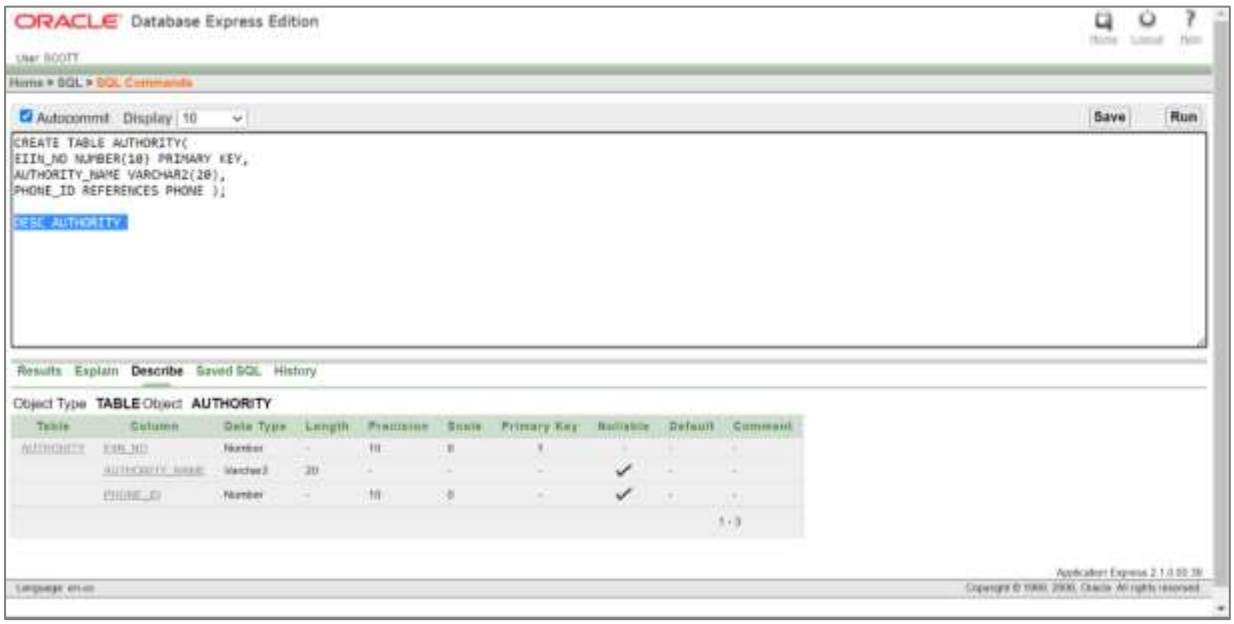
PHONE TABLE:

```
CREATE TABLE PHONE(
PHONE_ID NUMBER(10) PRIMARY KEY,
PHONE_NO VARCHAR2(20) );
DESC PHONE
```



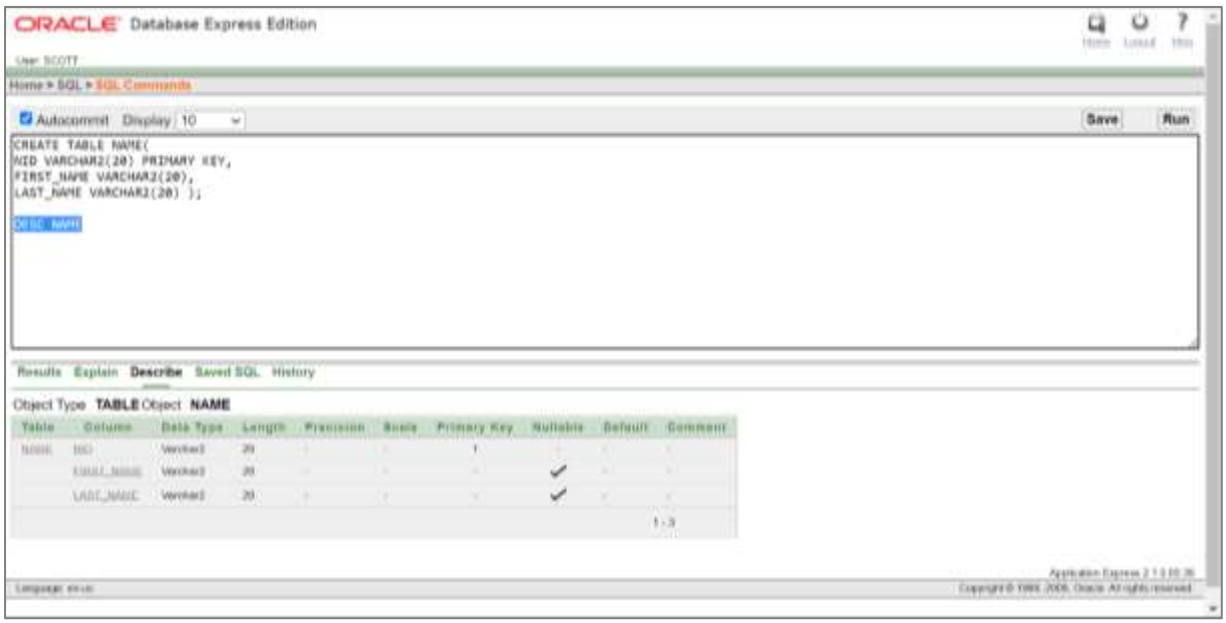
AUTHORITY TABLE:

```
CREATE TABLE AUTHORITY(
EIIN_NO NUMBER(10) PRIMARY KEY,
AUTHORITY_NAME VARCHAR2(20),
PHONE_ID REFERENCES PHONE );
DESC AUTHORITY
```



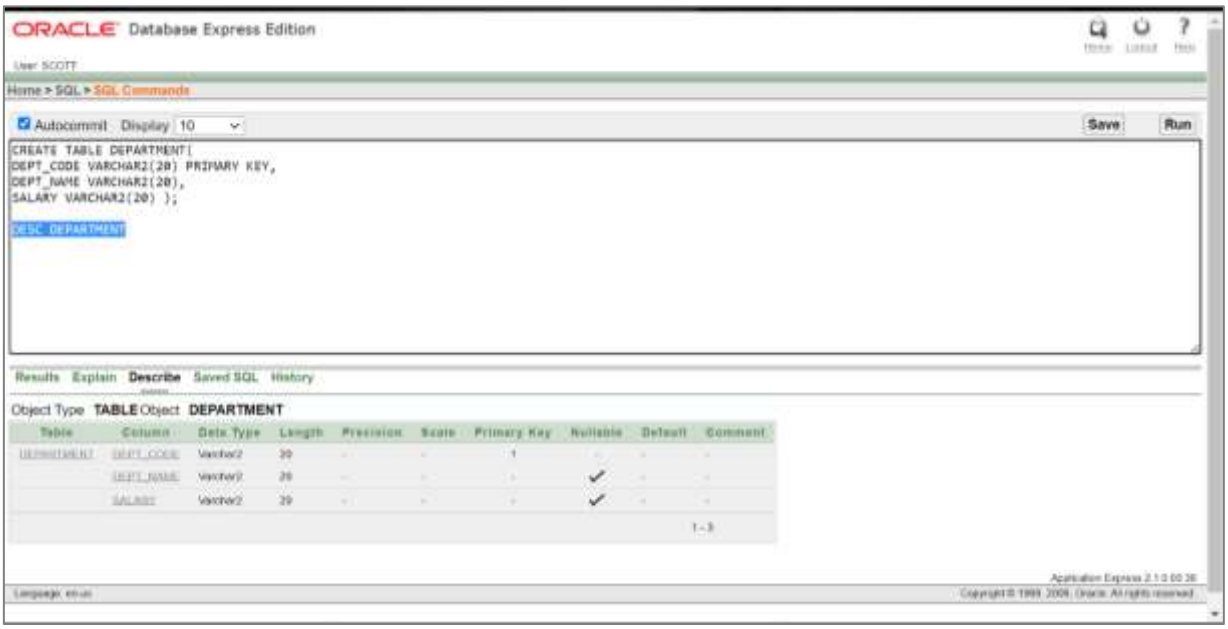
NAME TABLE:

```
CREATE TABLE NAME(
NID VARCHAR2(20) PRIMARY KEY,
FIRST_NAME VARCHAR2(20),
LAST_NAME VARCHAR2(20) );
DESC NAME
```



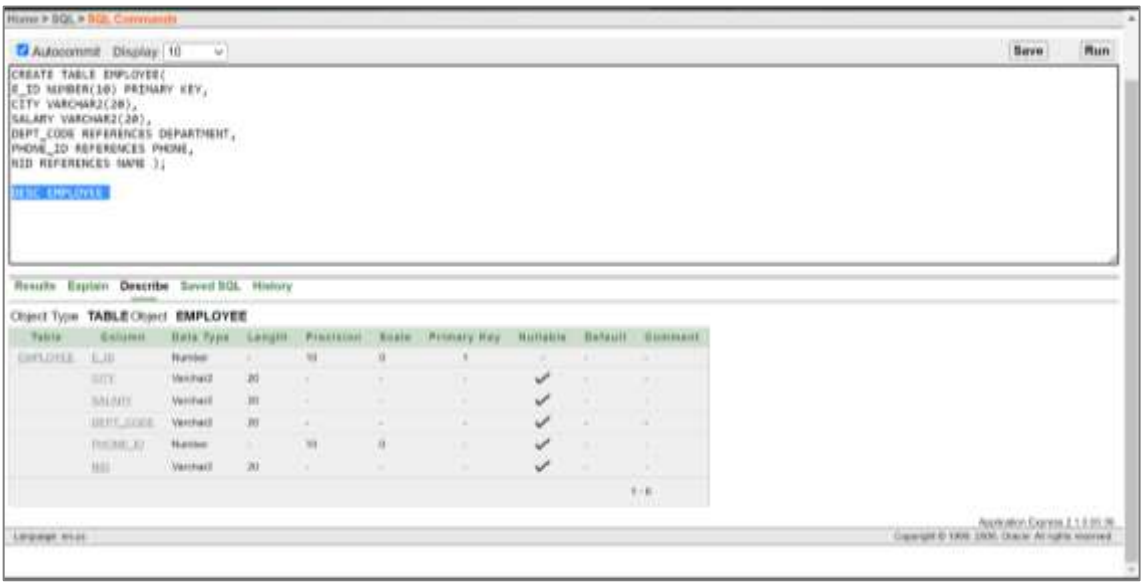
DEPARTMENT TABLE:

```
CREATE TABLE DEPARTMENT(
DEPT_CODE VARCHAR2(20) PRIMARY KEY,
DEPT_NAME VARCHAR2(20),
SALARY VARCHAR2(20) );
DESC DEPARTMENT
```



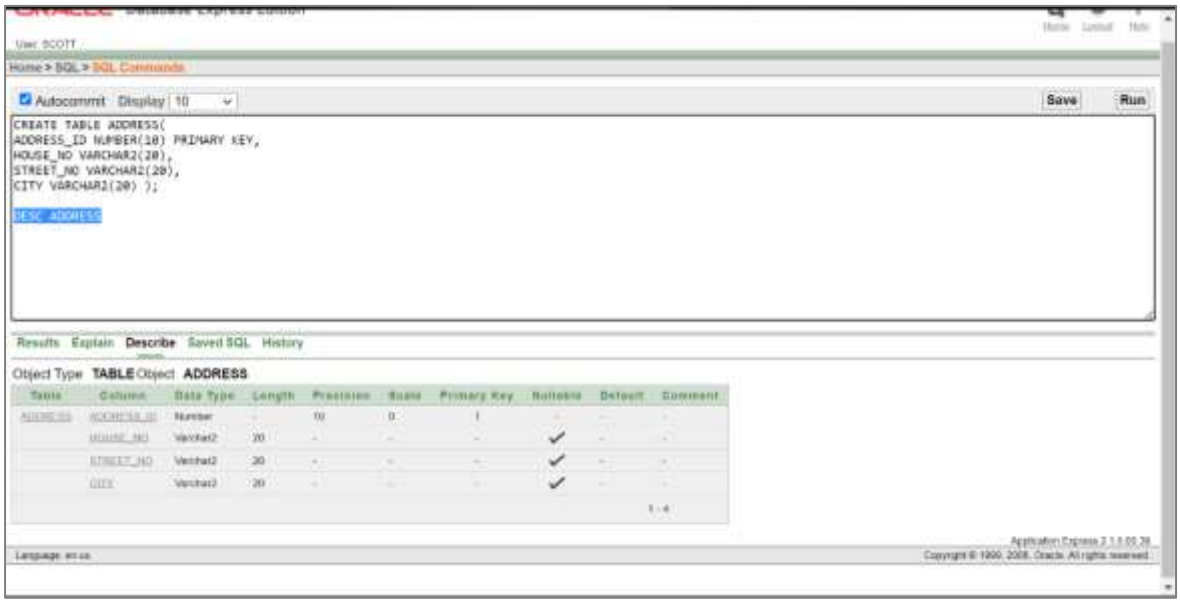
EMPLOYEE TABLE:

```
CREATE TABLE EMPLOYEE(
E_ID NUMBER(10) PRIMARY KEY,
CITY VARCHAR2(20),
SALARY VARCHAR2(20),
DEPT_CODE REFERENCES DEPARTMENT,
PHONE_ID REFERENCES PHONE,
NID REFERENCES NAME );
DESC EMPLOYEE
```



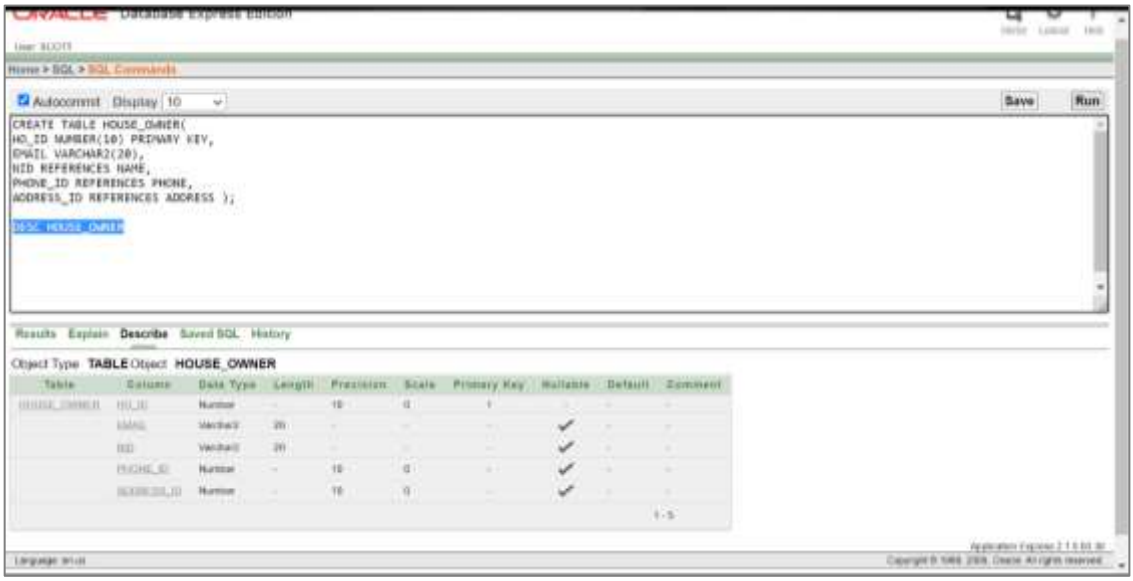
ADDRESS TABLE:

```
CREATE TABLE ADDRESS(
ADDRESS_ID NUMBER(10) PRIMARY KEY,
HOUSE_NO VARCHAR2(20),
STREET_NO VARCHAR2(20),
CITY VARCHAR2(20) );
DESC ADDRESS
```



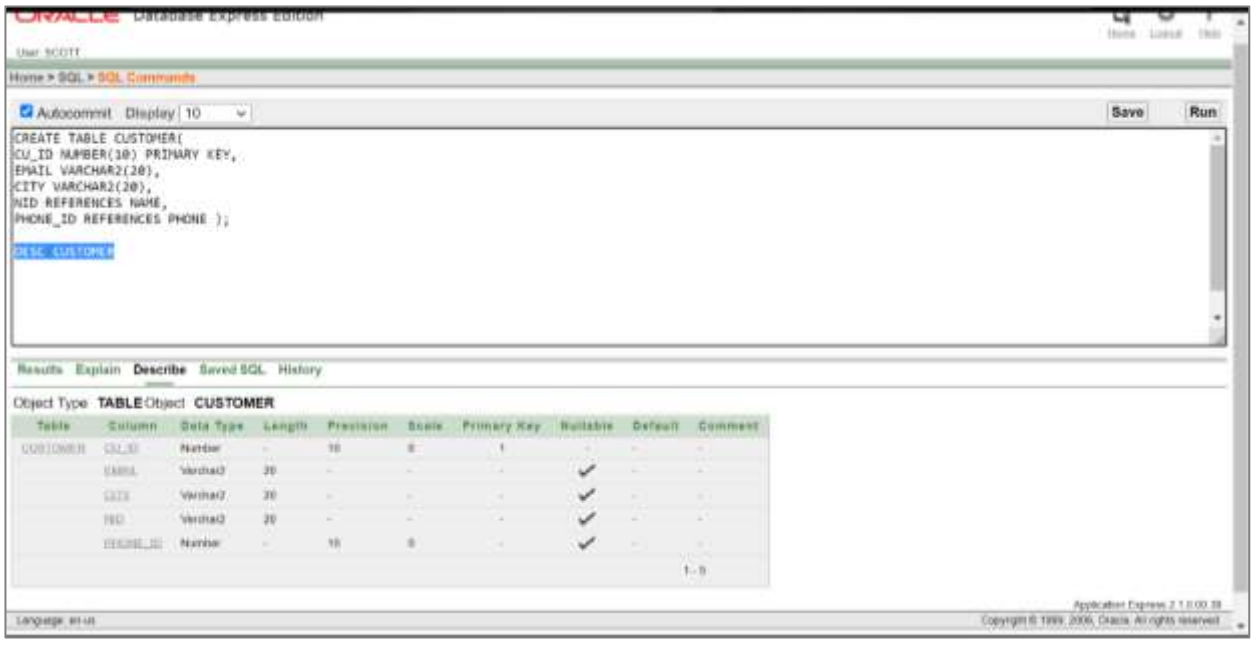
HOUSE OWNER TABLE:

```
CREATE TABLE HOUSE_OWNER(
HO_ID NUMBER(10) PRIMARY KEY,
EMAIL VARCHAR2(20),
NID REFERENCES NAME,
PHONE_ID REFERENCES PHONE,
ADDRESS_ID REFERENCES ADDRESS );
DESC HOUSE_OWNER
```



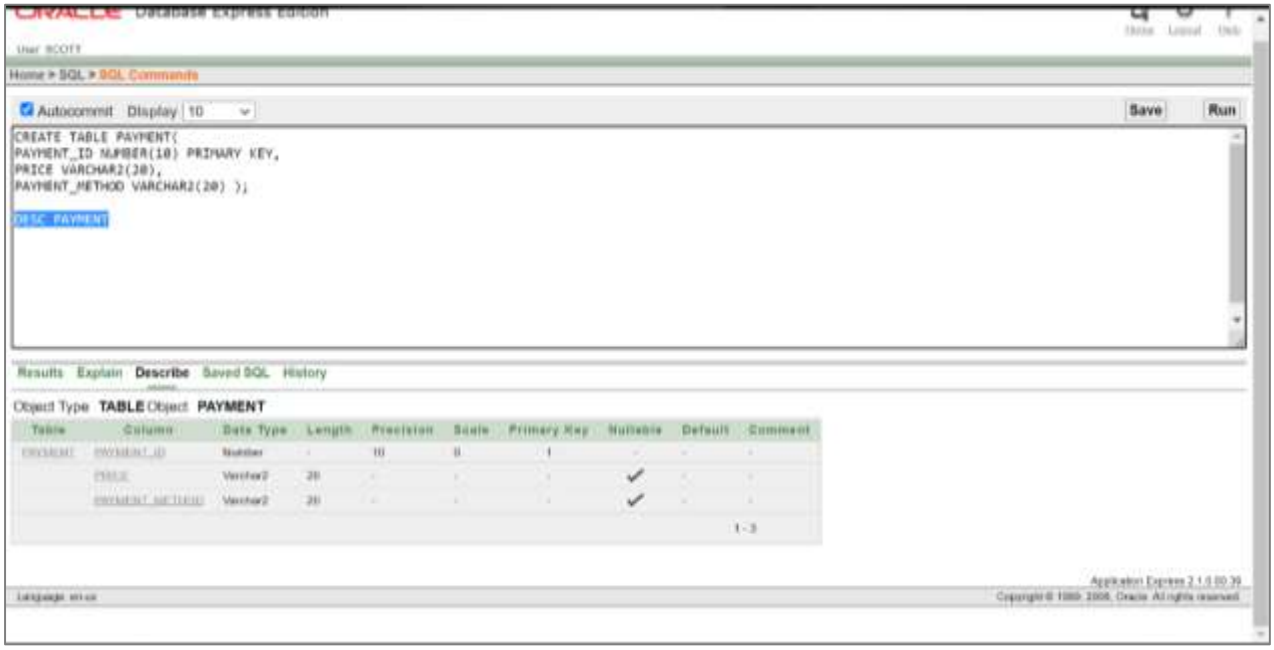
CUSTOMER TABLE:

```
CREATE TABLE CUSTOMER(
CU_ID NUMBER(10) PRIMARY KEY,
EMAIL VARCHAR2(20),
CITY VARCHAR2(20),
NID REFERENCES NAME,
PHONE_ID REFERENCES PHONE );
DESC CUSTOMER
```



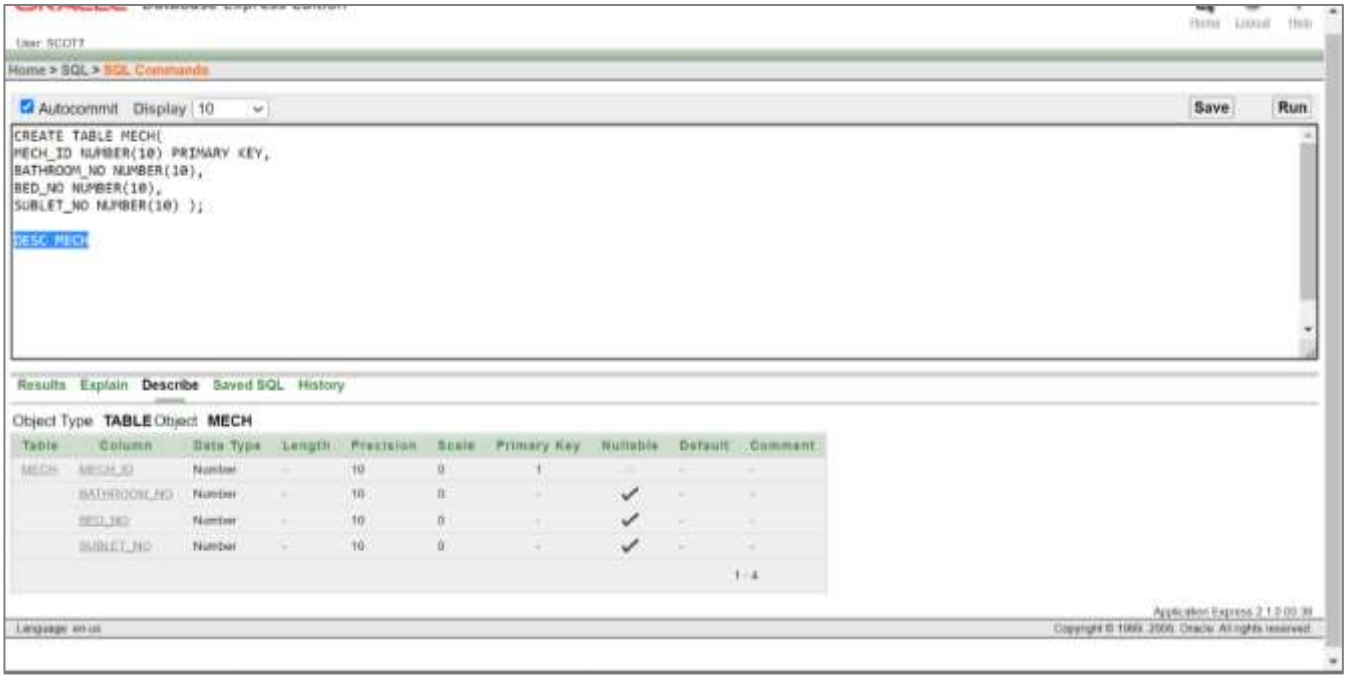
PAYMENT TABLE:

```
CREATE TABLE PAYMENT(
PAYMENT_ID NUMBER(10) PRIMARY KEY,
PRICE VARCHAR2(20),
PAYMENT_METHOD VARCHAR2(20) );
DESC PAYMENT
```



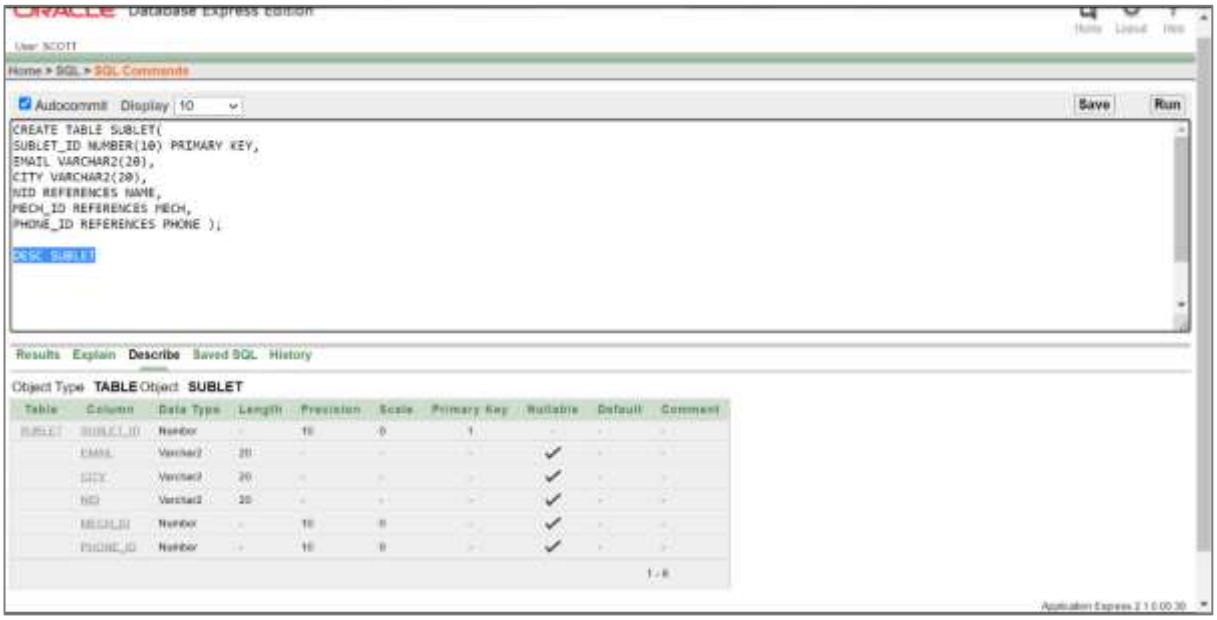
MECH TABLE:

```
CREATE TABLE MECH(
MECH_ID NUMBER(10) PRIMARY KEY,
BATHROOM_NO NUMBER(10),
BED_NO NUMBER(10),
SUBLET_NO NUMBER(10) );
DESC MECH
```



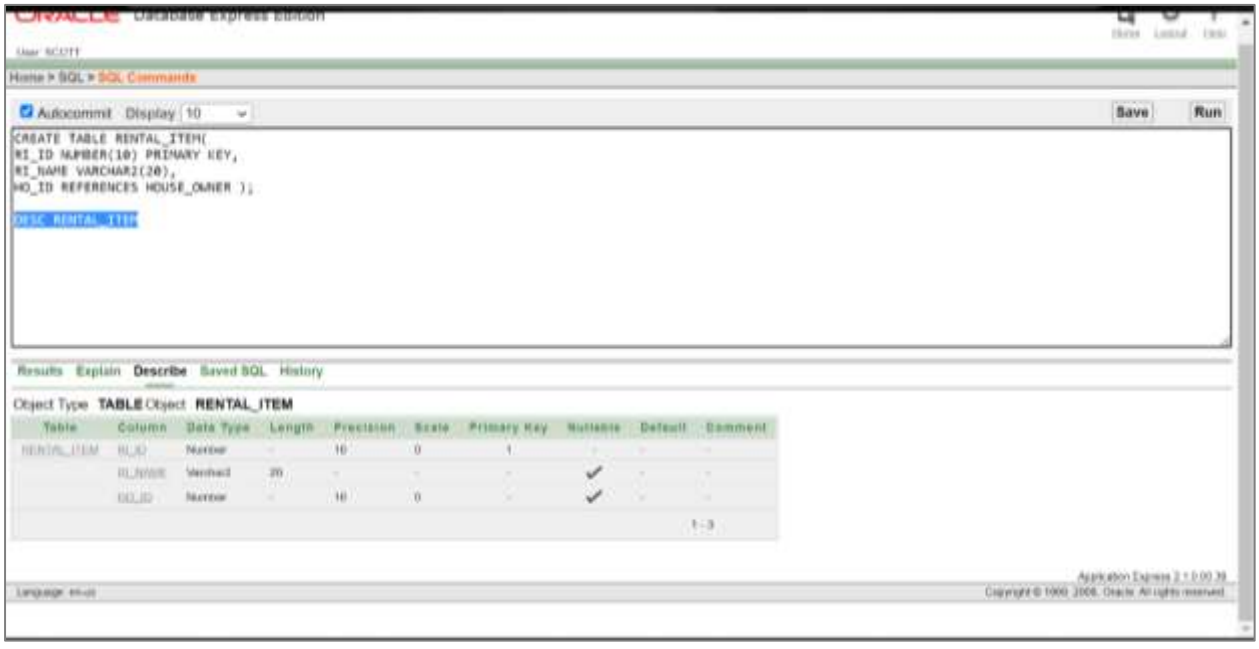
SUBLET TABLE:

```
CREATE TABLE SUBLET(
SUBLET_ID NUMBER(10) PRIMARY KEY,
EMAIL VARCHAR2(20),
CITY VARCHAR2(20),
NID REFERENCES NAME,
MECH_ID REFERENCES MECH,
PHONE_ID REFERENCES PHONE );
DESC SUBLET
```



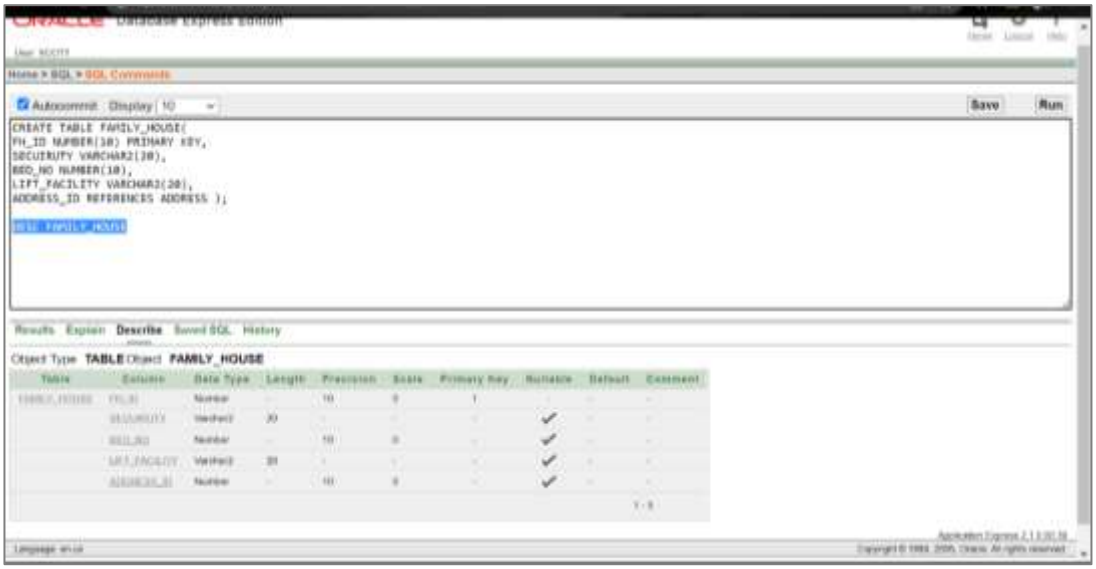
RENTAL ITEM TABLE:

```
CREATE TABLE RENTAL_ITEM(
RI_ID NUMBER(10) PRIMARY KEY,
RI_NAME VARCHAR2(20),
HO_ID REFERENCES HOUSE_OWNER );
DESC RENTAL_ITEM
```



FAMILY HOUSE TABLE:

```
CREATE TABLE FAMILY_HOUSE(
FH_ID NUMBER(10) PRIMARY KEY,
SECUIRUTY VARCHAR2(20),
BED_NO NUMBER(10),
LIFT_FACILITY VARCHAR2(20),
ADDRESS_ID REFERENCES ADDRESS );
DESC FAMILY_HOUSE
```



OFFICE SPACE TABLE:

```
CREATE TABLE OFFICE_SPACE(
OS_ID NUMBER(10) PRIMARY KEY,
OFFICE_SIZE VARCHAR2(20),
SECUIRUTY VARCHAR2(20),
LIFT_FACILITY VARCHAR2(20),
GARAGE_FACILITY VARCHAR2(20),
ADDRESS_ID REFERENCES ADDRESS );
DESC OFFICE_SPACE
```

Table Insertion:

PHONE TABLE:

1.

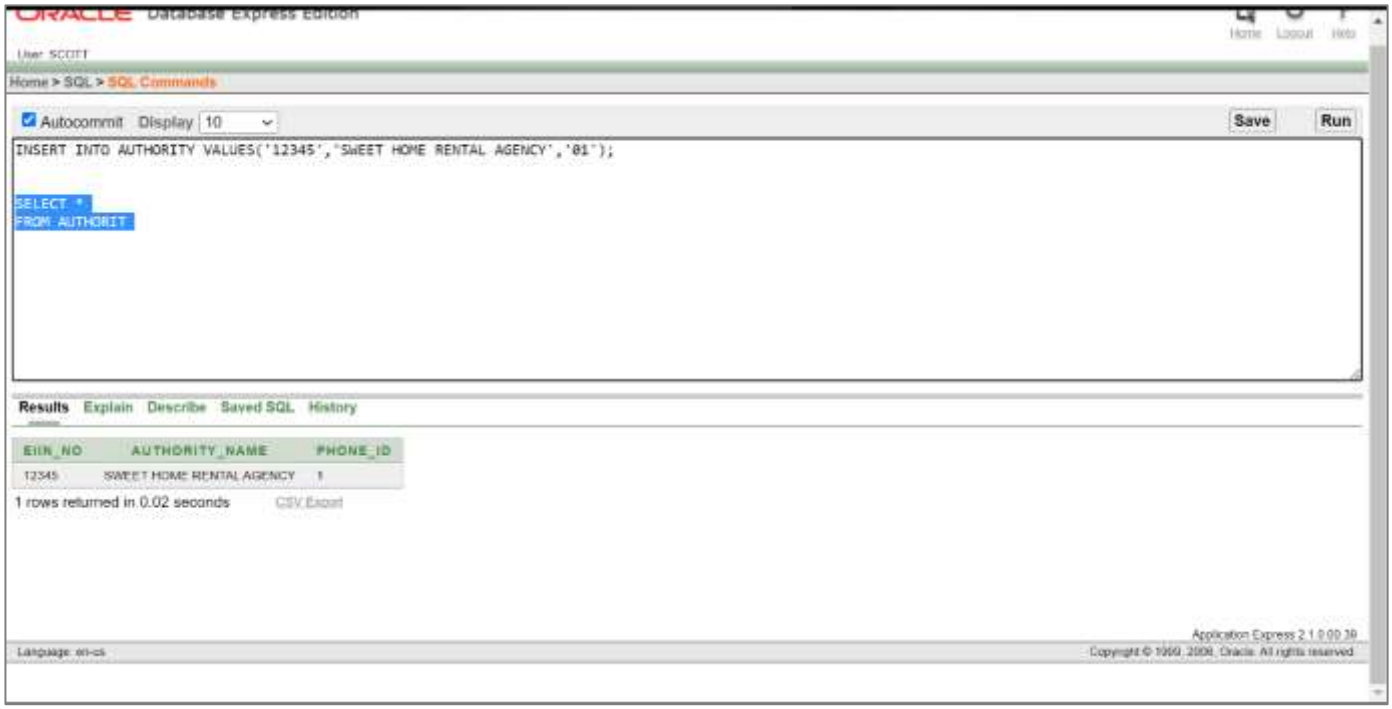
```
INSERT INTO PHONE VALUES( '01','+8801712345678');
INSERT INTO PHONE VALUES( '02','+8801712345679');
INSERT INTO PHONE VALUES( '03','+8801712345680');
INSERT INTO PHONE VALUES( '04','+8801712345681');
INSERT INTO PHONE VALUES( '05','+8801712345681');
INSERT INTO PHONE VALUES( '06','+8801612345682');
INSERT INTO PHONE VALUES( '07','+8801612345683');
INSERT INTO PHONE VALUES( '08','+8801612345684');
INSERT INTO PHONE VALUES( '09','+8801612345685');
INSERT INTO PHONE VALUES( '10','+8801612345686');
INSERT INTO PHONE VALUES( '11','+8801312345687');
INSERT INTO PHONE VALUES( '12','+8801312345688');
INSERT INTO PHONE VALUES( '13','+8801312345689');
INSERT INTO PHONE VALUES( '14','+8801312345681');
INSERT INTO PHONE VALUES( '15','+8801312345682');
INSERT INTO PHONE VALUES( '16','+8801912345683');
INSERT INTO PHONE VALUES( '17','+8801912345684');
INSERT INTO PHONE VALUES( '18','+8801912345685');
INSERT INTO PHONE VALUES( '19','+8801912345686');
INSERT INTO PHONE VALUES( '20','+8801912345687');
INSERT INTO PHONE VALUES( '21','+8801918345687');
INSERT INTO PHONE VALUES( '22','+8801312345688');
INSERT INTO PHONE VALUES( '23','+8801312345689');
INSERT INTO PHONE VALUES( '24','+8801312345681');
INSERT INTO PHONE VALUES( '25','+8801312345682');
INSERT INTO PHONE VALUES( '26','+8801912345683');

SELECT *
FROM PHONE
```

AUTHORITY TABLE:

2.

INSERT INTO AUTHORITY VALUES('12345','SWEET HOME RENTAL AGENCY','01');

SELECT *
FROM AUTHORITY



NAME TABLE:

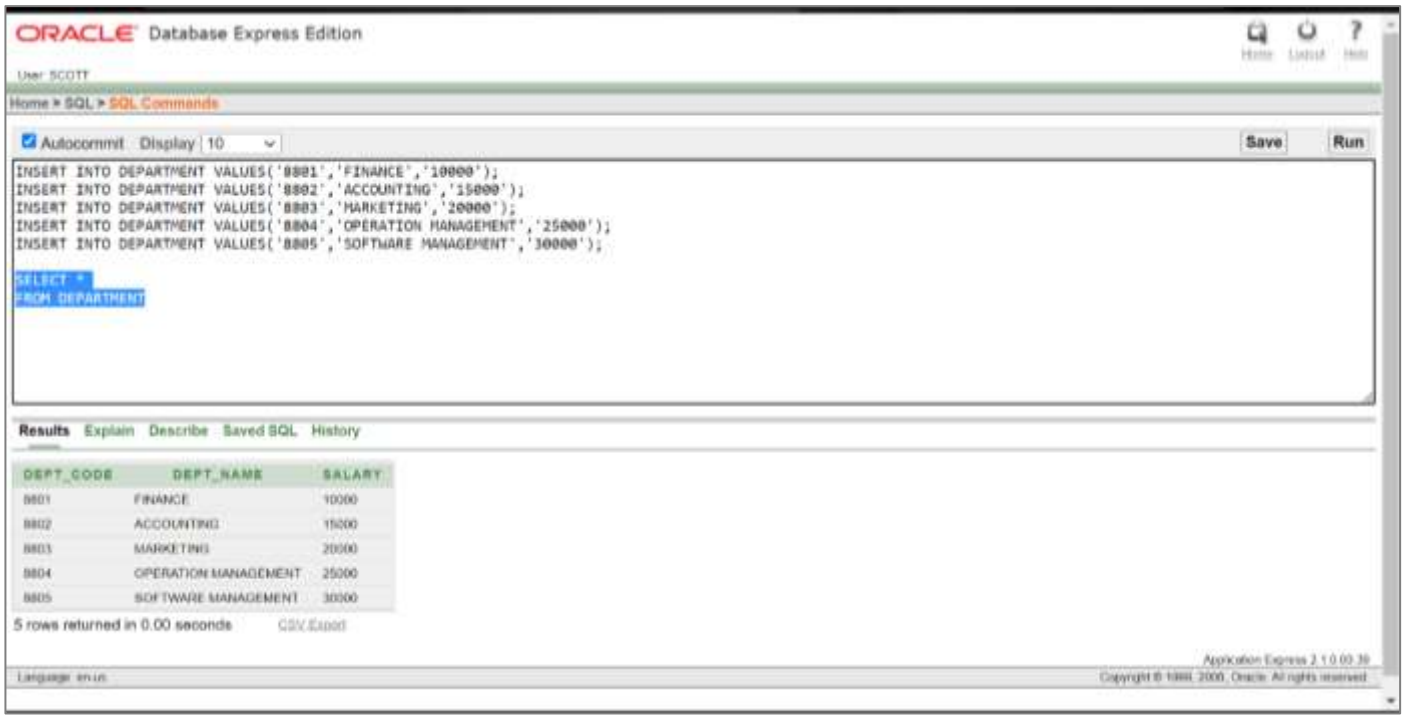
3.

```
INSERT INTO NAME VALUES('101','MD SABBIR','KHAN');
INSERT INTO NAME VALUES('102','MD AKASH','KHAN');
INSERT INTO NAME VALUES('103','NUR-E HABIB','NURSHED');
INSERT INTO NAME VALUES('104','RAIHANUL','ISLAM');
INSERT INTO NAME VALUES('105','JULKER','NINE');
INSERT INTO NAME VALUES('106','HABIUR','RAHAMAN');
INSERT INTO NAME VALUES('107','SAHADAT','HOSSAIN');
INSERT INTO NAME VALUES('108','SABAB','RAHAMAN');
INSERT INTO NAME VALUES('109','RICKI','SEN');
INSERT INTO NAME VALUES('110','DIPON','BISWAS');
INSERT INTO NAME VALUES('111','MAHADI','KABIR');
INSERT INTO NAME VALUES('112','REZAUL','KARIM');
INSERT INTO NAME VALUES('113','RISI','GUPTA');
INSERT INTO NAME VALUES('114','AQIB','HOWLADER');
INSERT INTO NAME VALUES('115','RISHAD','RAHMAN');
INSERT INTO NAME VALUES('116',RASEDUR ,'RAHAMAN');
INSERT INTO NAME VALUES('117',KHALID ,'HOSSAIN');
INSERT INTO NAME VALUES('118','RIYANTTI','SEN');
INSERT INTO NAME VALUES('119','SIMA','RAHAMAN');
INSERT INTO NAME VALUES('120','PRIYA','BISWAS');
INSERT INTO NAME VALUES('121','MEHEDI','RAHAMAN');
INSERT INTO NAME VALUES('122','REZAUL','SHARIF);
INSERT INTO NAME VALUES('123','RUMPA','KHAN');
INSERT INTO NAME VALUES('124','ISRAT','EVA');
INSERT INTO NAME VALUES('125','RAJU','RAHMAN');


SELECT *
FROM NAME
```

DEPARTMENT TABLE:

4.

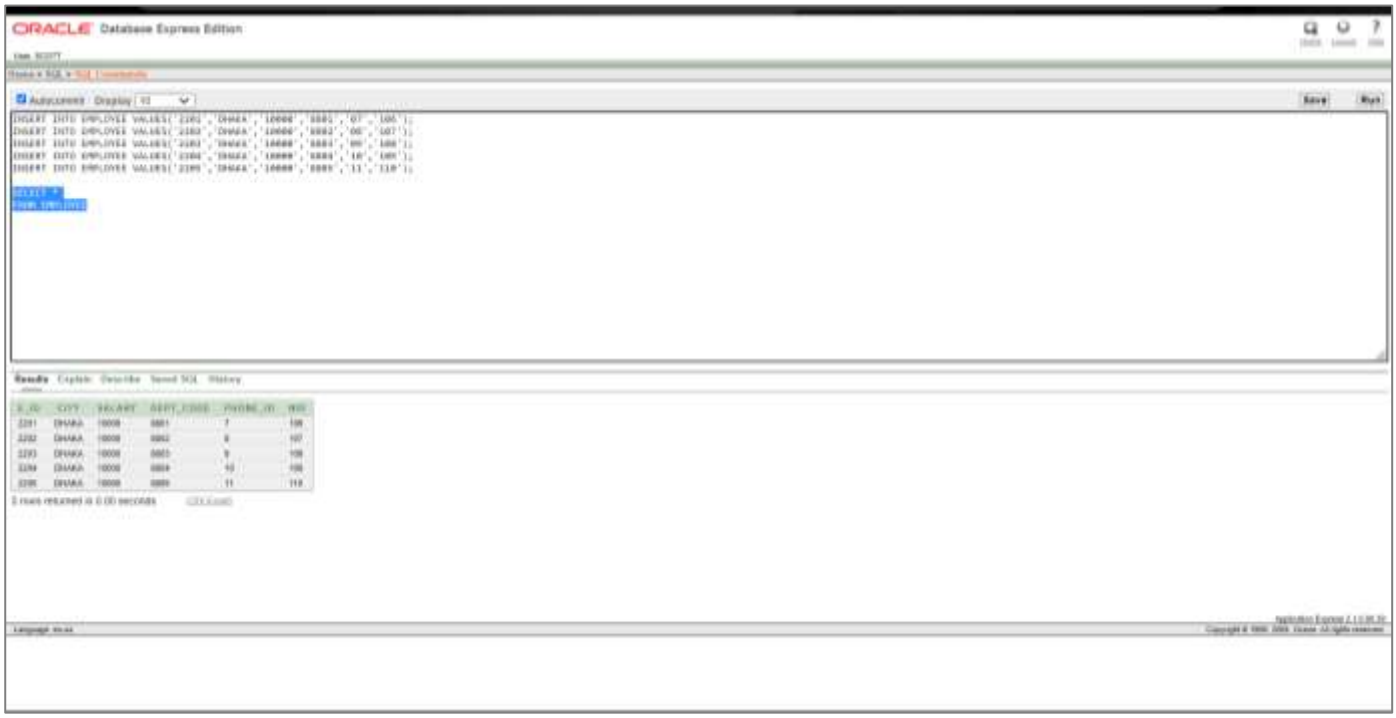
```
INSERT INTO DEPARTMENT VALUES('8801','FINANCE','10000');
INSERT INTO DEPARTMENT VALUES('8802','ACCOUNTING','15000');
INSERT INTO DEPARTMENT VALUES('8803','MARKETING','20000');
INSERT INTO DEPARTMENT VALUES('8804','OPERATION
MANAGEMENT','25000');
INSERT INTO DEPARTMENT VALUES('8805','SOFTWARE
MANAGEMENT','30000');

SELECT *
FROM DEPARTMENT
```



EMPLOYEE TABLE:

5.

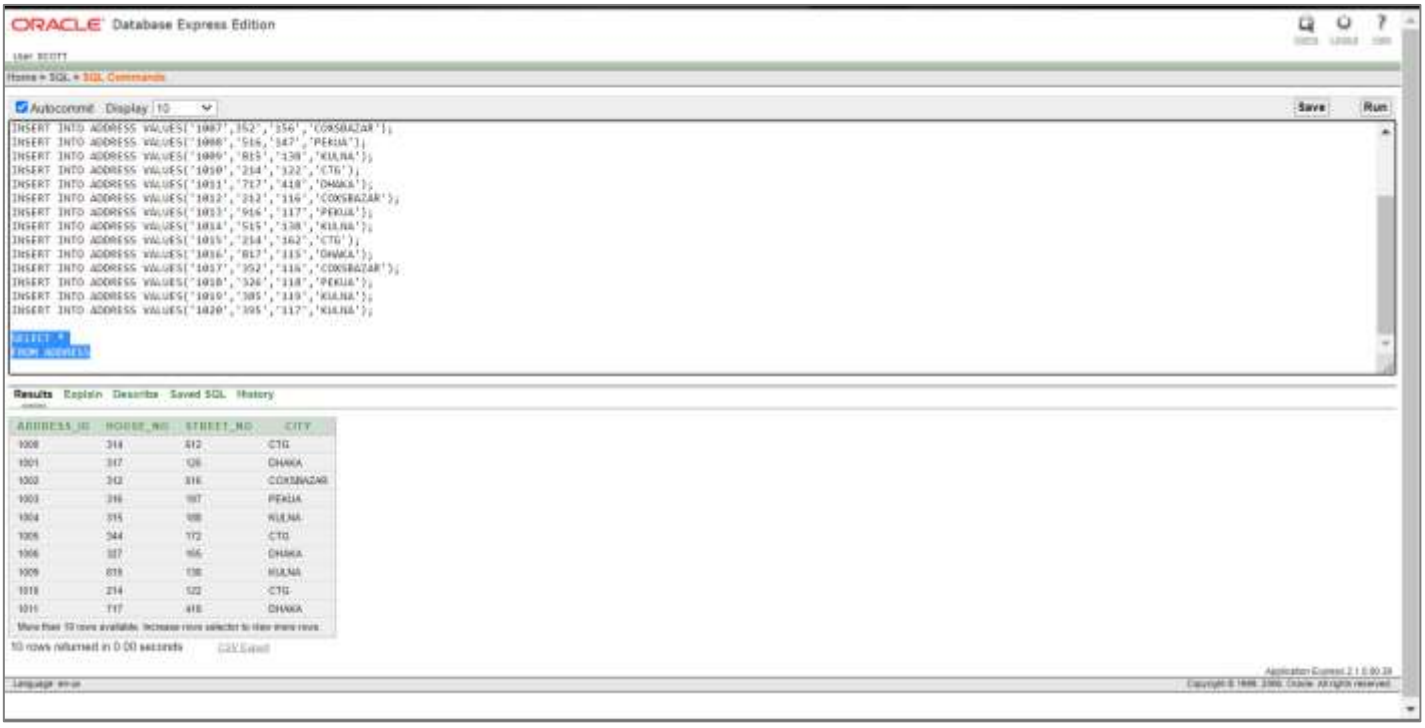
```
INSERT INTO EMPLOYEE VALUES('2201','DHAKA','10000','8801','07','106');
INSERT INTO EMPLOYEE VALUES('2202','DHAKA','10000','8802','08','107');
INSERT INTO EMPLOYEE VALUES('2203','DHAKA','10000','8803','09','108');
INSERT INTO EMPLOYEE VALUES('2204','DHAKA','10000','8804','10','109');
INSERT INTO EMPLOYEE VALUES('2205','DHAKA','10000','8805','11','110');

SELECT *
FROM EMPLOYEE
```



ADDRESS TABLE:

6.

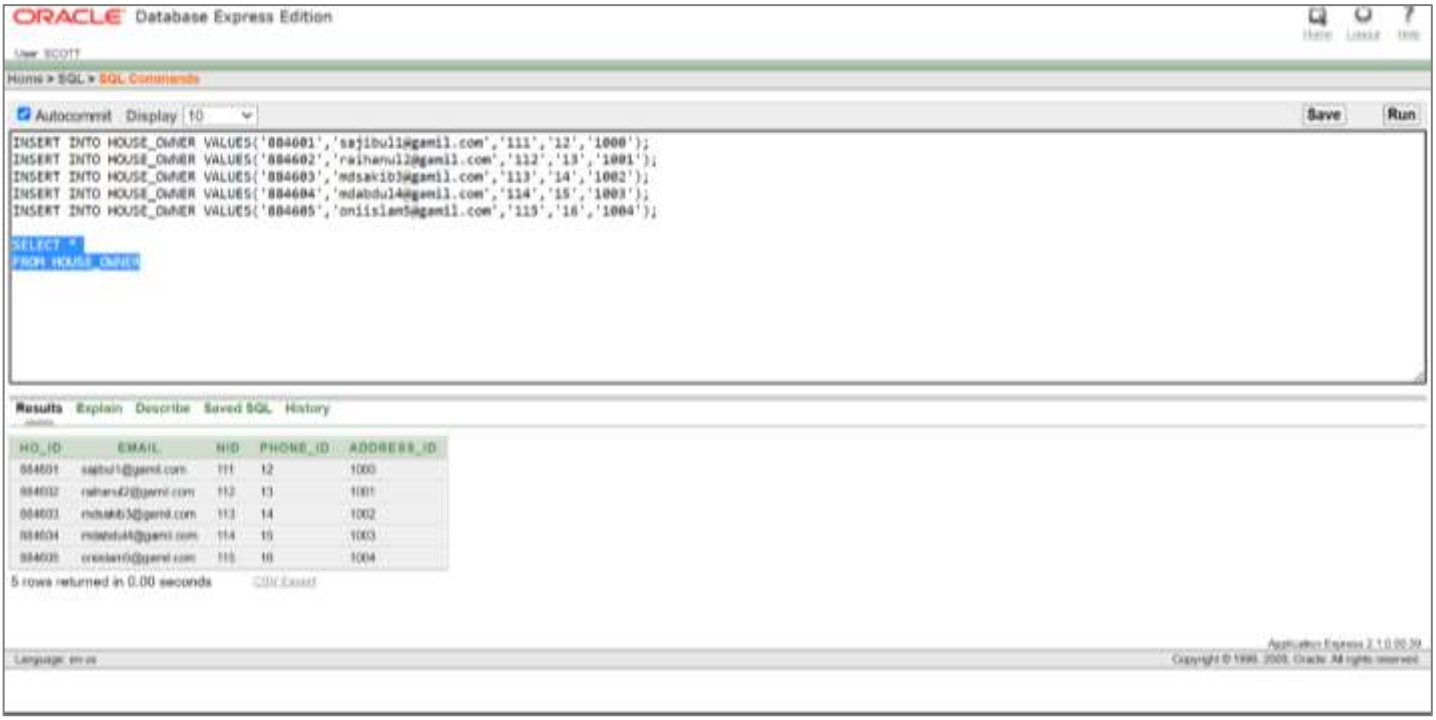
```
INSERT INTO ADDRESS VALUES('1000','314','612','CTG');
INSERT INTO ADDRESS VALUES('1001','317','125','DHAKA');
INSERT INTO ADDRESS VALUES('1002','312','516','COXSBAZAR');
INSERT INTO ADDRESS VALUES('1003','316','197','PEKUA');
INSERT INTO ADDRESS VALUES('1004','315','188','KULNA');
INSERT INTO ADDRESS VALUES('1005','344','172','CTG');
INSERT INTO ADDRESS VALUES('1006','327','165','DHAKA');
INSERT INTO ADDRESS VALUES('1007',352','156','COXSBAZAR');
INSERT INTO ADDRESS VALUES('1008','516,147','PEKUA');
INSERT INTO ADDRESS VALUES('1009','815','138','KULNA');
INSERT INTO ADDRESS VALUES('1010','214','122','CTG');
INSERT INTO ADDRESS VALUES('1011','717','418','DHAKA');
INSERT INTO ADDRESS VALUES('1012','212','116','COXSBAZAR');
INSERT INTO ADDRESS VALUES('1013','916','117','PEKUA');
INSERT INTO ADDRESS VALUES('1014','515','138','KULNA');
INSERT INTO ADDRESS VALUES('1015','214','162','CTG');
INSERT INTO ADDRESS VALUES('1016','817','115','DHAKA');
INSERT INTO ADDRESS VALUES('1017','352','116','COXSBAZAR');
INSERT INTO ADDRESS VALUES('1018','326','118','PEKUA');
INSERT INTO ADDRESS VALUES('1019','385','119','KULNA');
INSERT INTO ADDRESS VALUES('1020','395','117','KULNA');

SELECT *
FROM ADDRESS
```



HOUSE OWNER TABLE:

7.

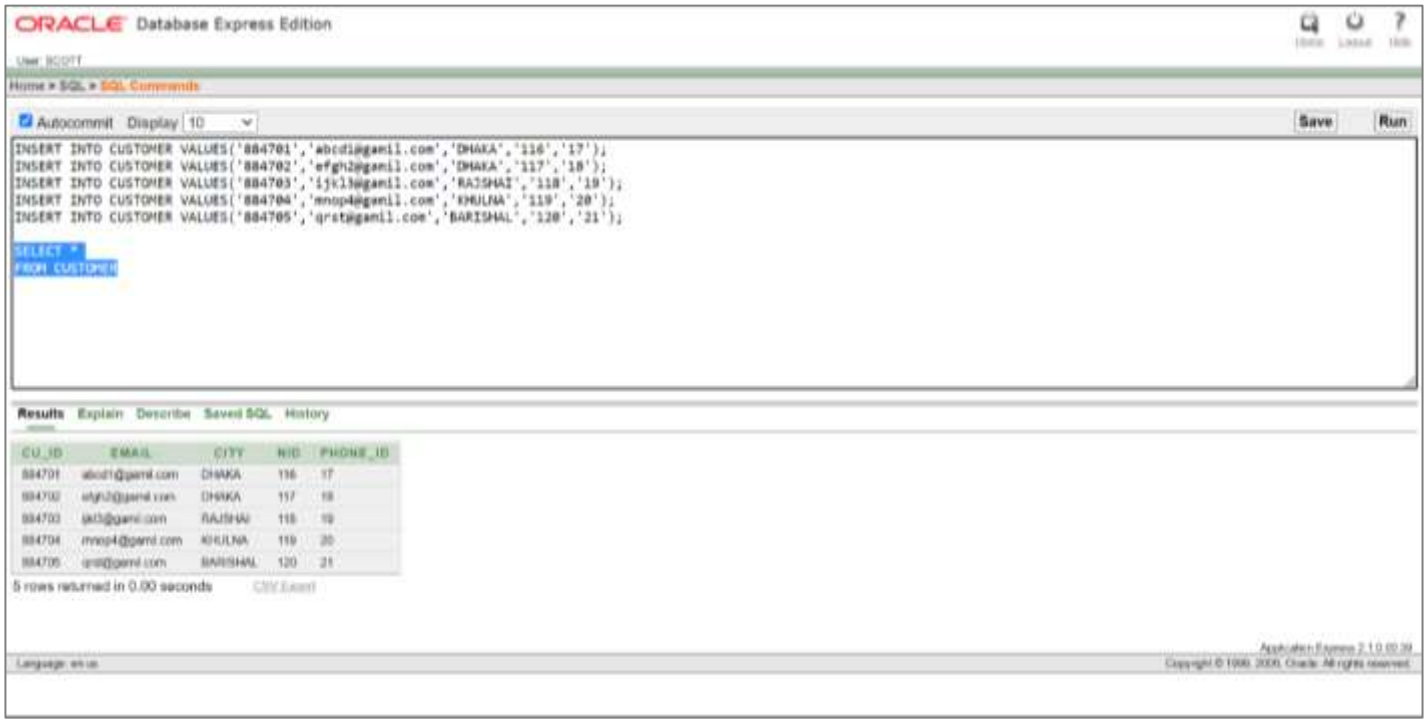
```
INSERT INTO HOUSE_OWNER
VALUES('884601','sajibul1@gamil.com','111','12','1000');
INSERT INTO HOUSE_OWNER
VALUES('884602','raihanul2@gamil.com','112','13','1001');
INSERT INTO HOUSE_OWNER
VALUES('884603','mdsakib3@gamil.com','113','14','1002');
INSERT INTO HOUSE_OWNER
VALUES('884604','mdabdul4@gamil.com','114','15','1003');
INSERT INTO HOUSE_OWNER
VALUES('884605','oniislam5@gamil.com','115','16','1004');

SELECT *
FROM HOUSE_OWNER
```



CUSTOMER TABLE:

8.

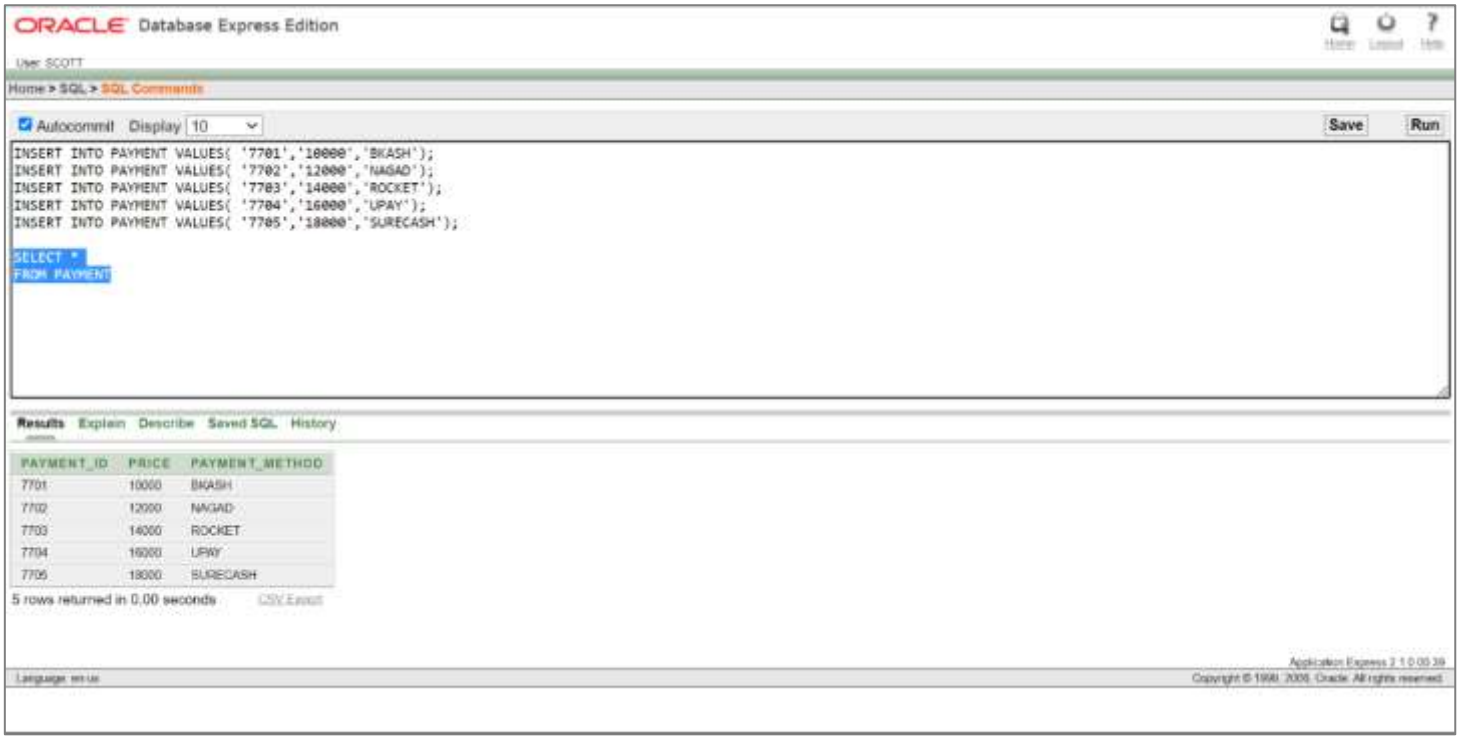
```
INSERT INTO CUSTOMER
VALUES('884701','abcd1@gamil.com','DHAKA','116','17');
INSERT INTO CUSTOMER
VALUES('884702','efgh2@gamil.com','DHAKA','117','18');
INSERT INTO CUSTOMER
VALUES('884703','ijkl3@gamil.com','RAJSHAI','118','19');
INSERT INTO CUSTOMER
VALUES('884704','mnop4@gamil.com','KHULNA','119','20');
INSERT INTO CUSTOMER
VALUES('884705','qrst@gamil.com','BARISHAL','120','21');

SELECT *
FROM CUSTOMER
```



PAYMENT TABLE:

9.

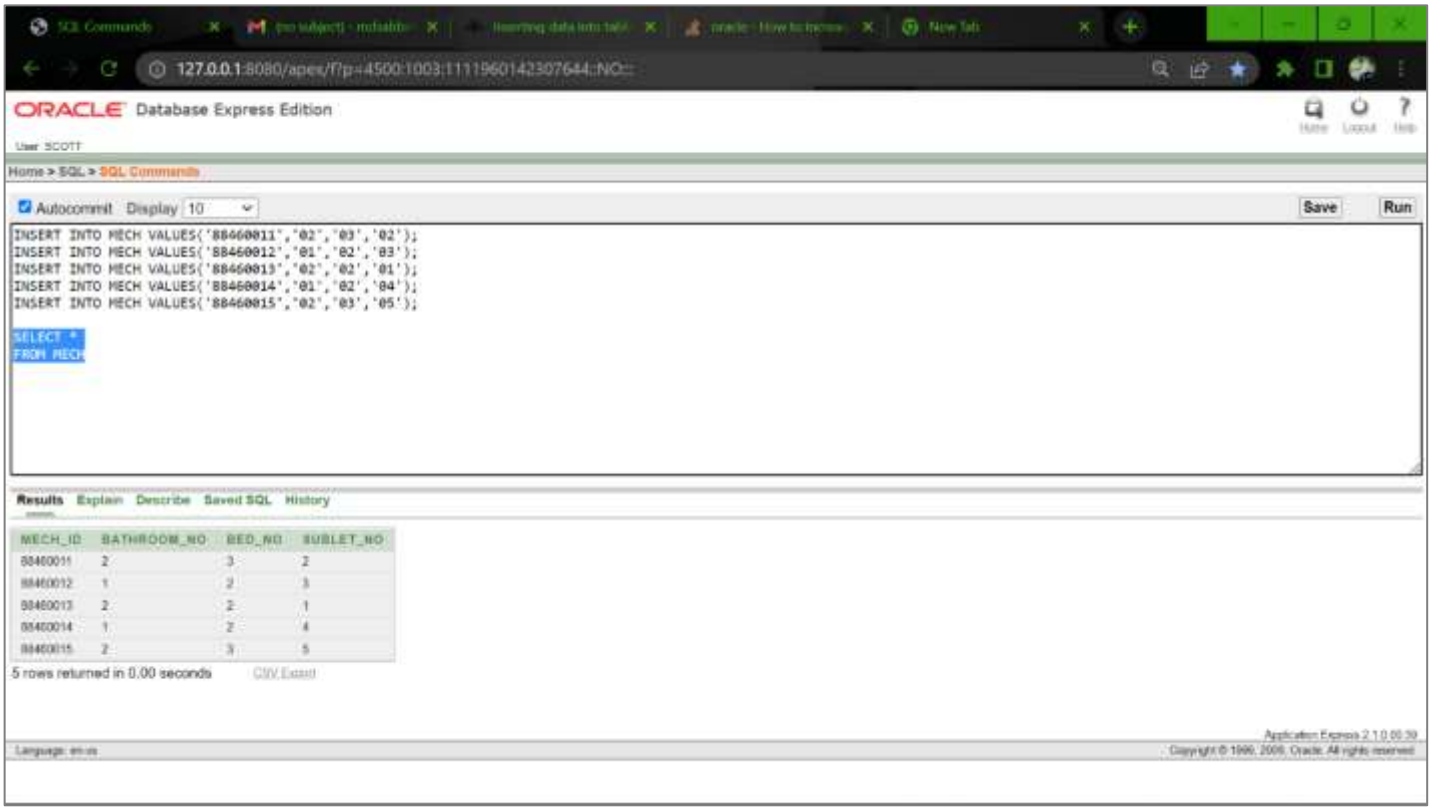
```
INSERT INTO PAYMENT VALUES( '7701','10000','BKASH');
INSERT INTO PAYMENT VALUES( '7702','12000','NAGAD');
INSERT INTO PAYMENT VALUES( '7703','14000','ROCKET');
INSERT INTO PAYMENT VALUES( '7704','16000','UPAY');
INSERT INTO PAYMENT VALUES( '7705','18000','SURECASH');

SELECT *
FROM PAYMENT
```



MECH TABLE:

10.

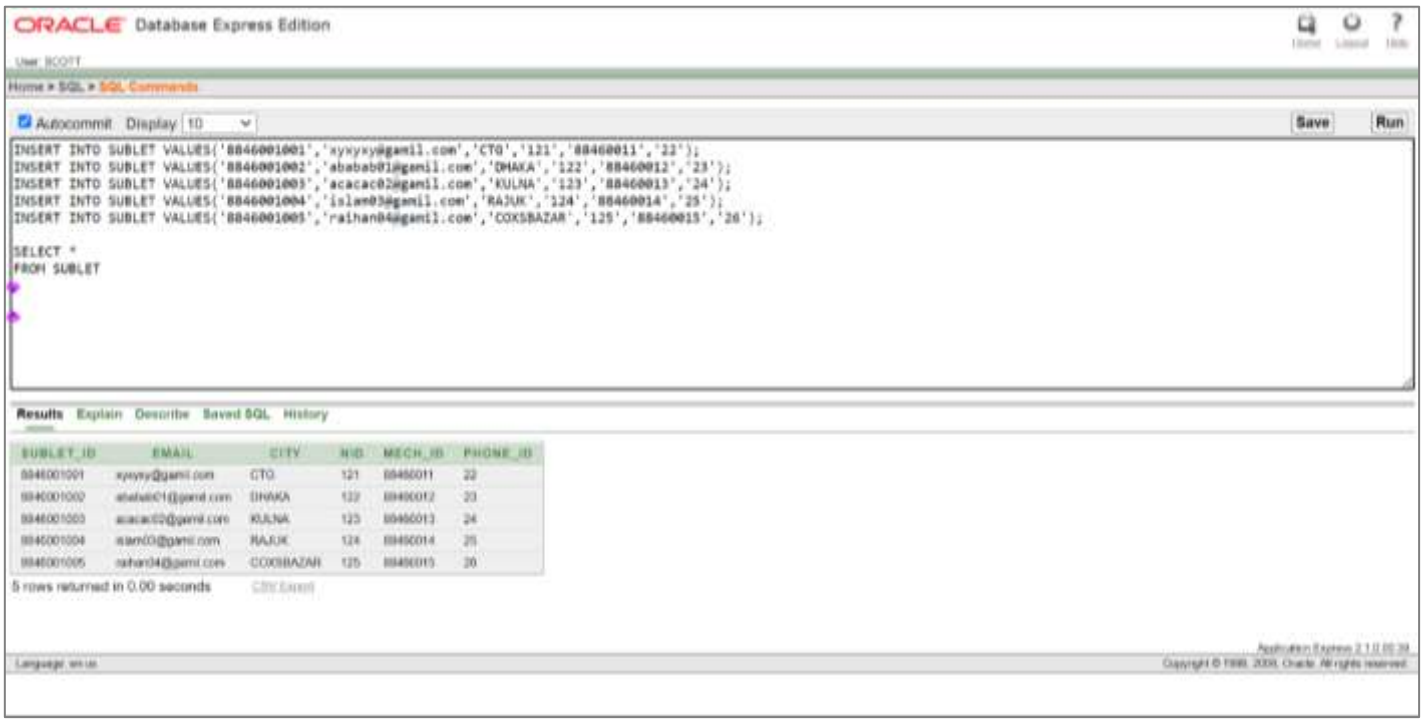
```
INSERT INTO MECH VALUES('88460011','02','03','02');
INSERT INTO MECH VALUES('88460012','01','02','03');
INSERT INTO MECH VALUES('88460013','02','02','01');
INSERT INTO MECH VALUES('88460014','01','02','04');
INSERT INTO MECH VALUES('88460015','02','03','05');

SELECT *
FROM MECH
```



SUBLET TABLE:

11.

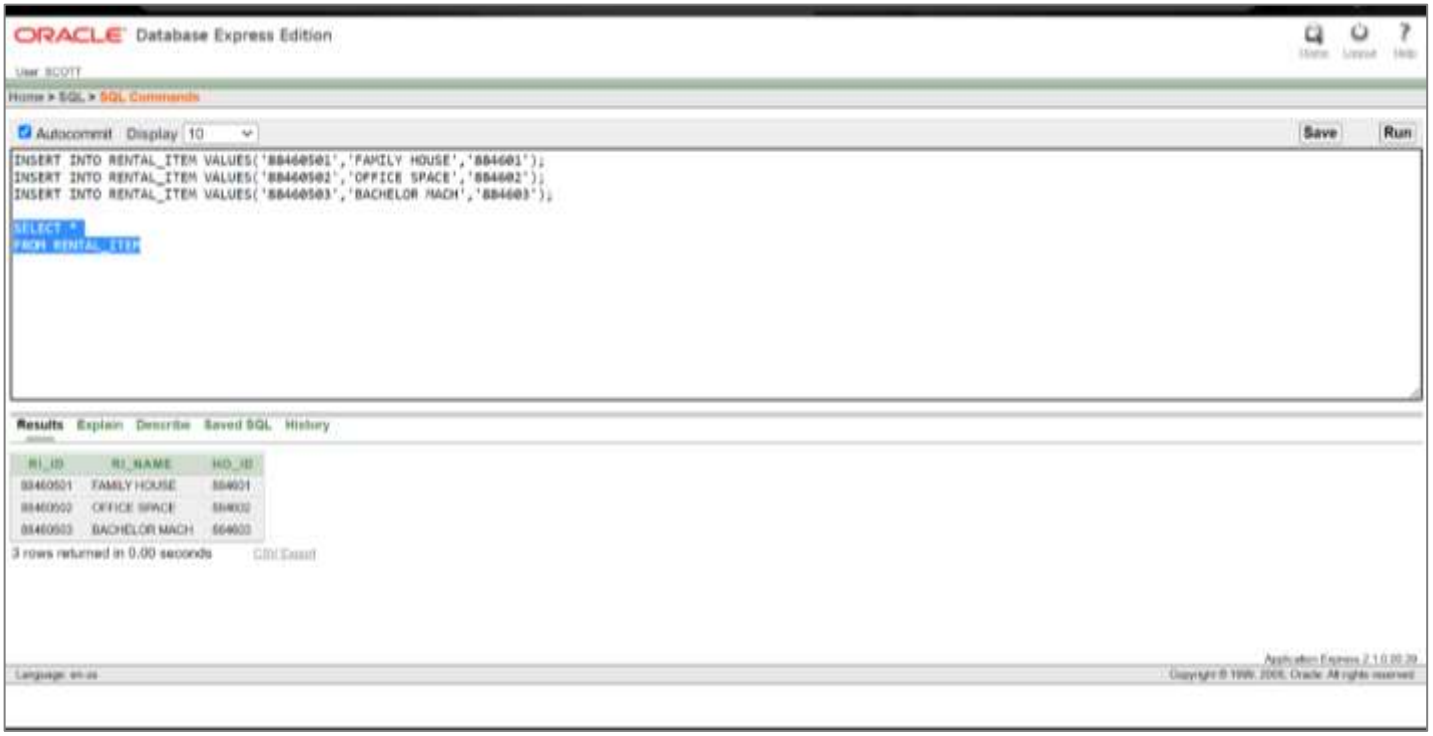
```
INSERT INTO SUBLET
VALUES('8846001001','xyxyxy@gamil.com','CTG','121','88460011','22');
INSERT INTO SUBLET
VALUES('8846001002','abababb01@gamil.com','DHAKA','122','88460012','23');
INSERT INTO SUBLET
VALUES('8846001003','acacac02@gamil.com','KULNA','123','88460013','24');
INSERT INTO SUBLET
VALUES('8846001004','islam03@gamil.com','RAJUK','124','88460014','25');
INSERT INTO SUBLET
VALUES('8846001005','raihan04@gamil.com','COXSBAZAR','125','88460015','26');

SELECT *
FROM SUBLET
```



RENTAL ITEM TABLE:

12.

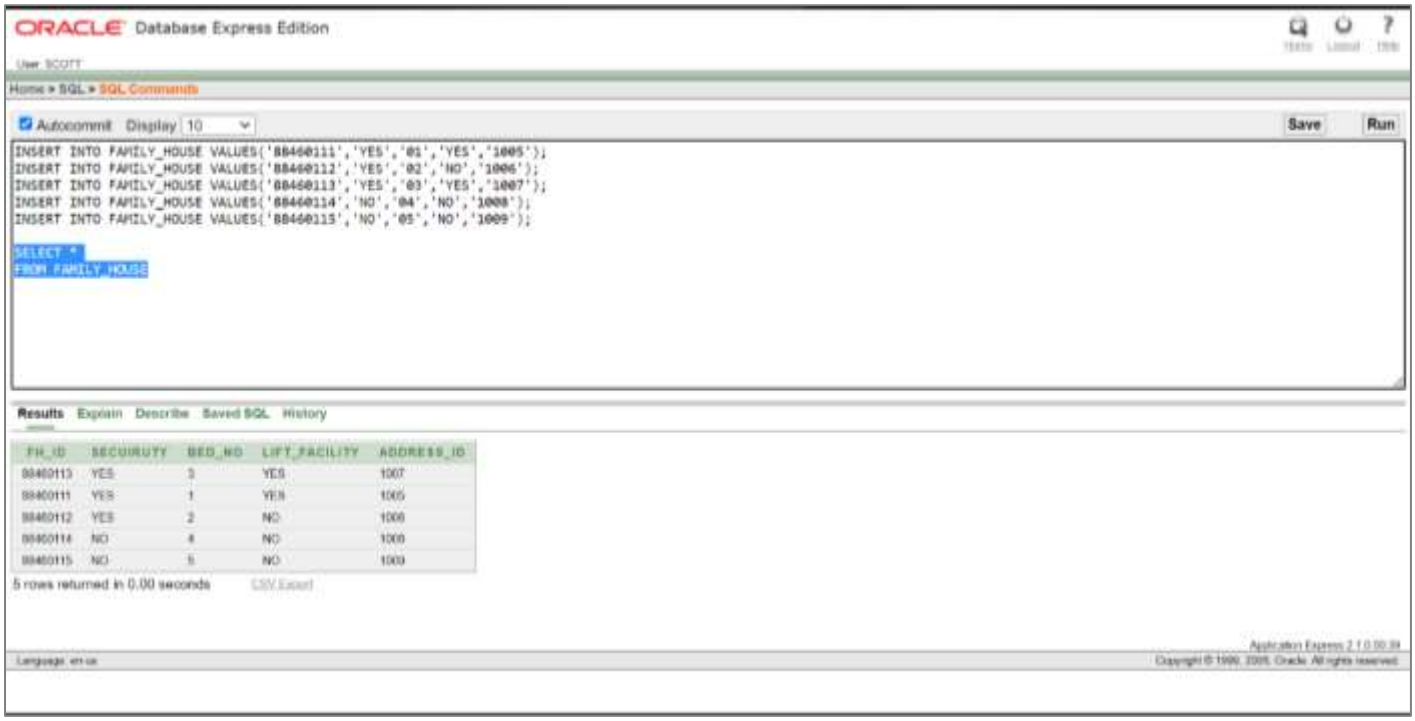
```
INSERT INTO RENTAL_ITEM VALUES('88460501','FAMILY HOUSE','884601');
INSERT INTO RENTAL_ITEM VALUES('88460502','OFFICE SPACE','884602');
INSERT INTO RENTAL_ITEM VALUES('88460503','BACHELOR MACH','884603');

SELECT *
FROM RENTAL_ITEM
```



FAMILY HOUSE TABLE:

13.

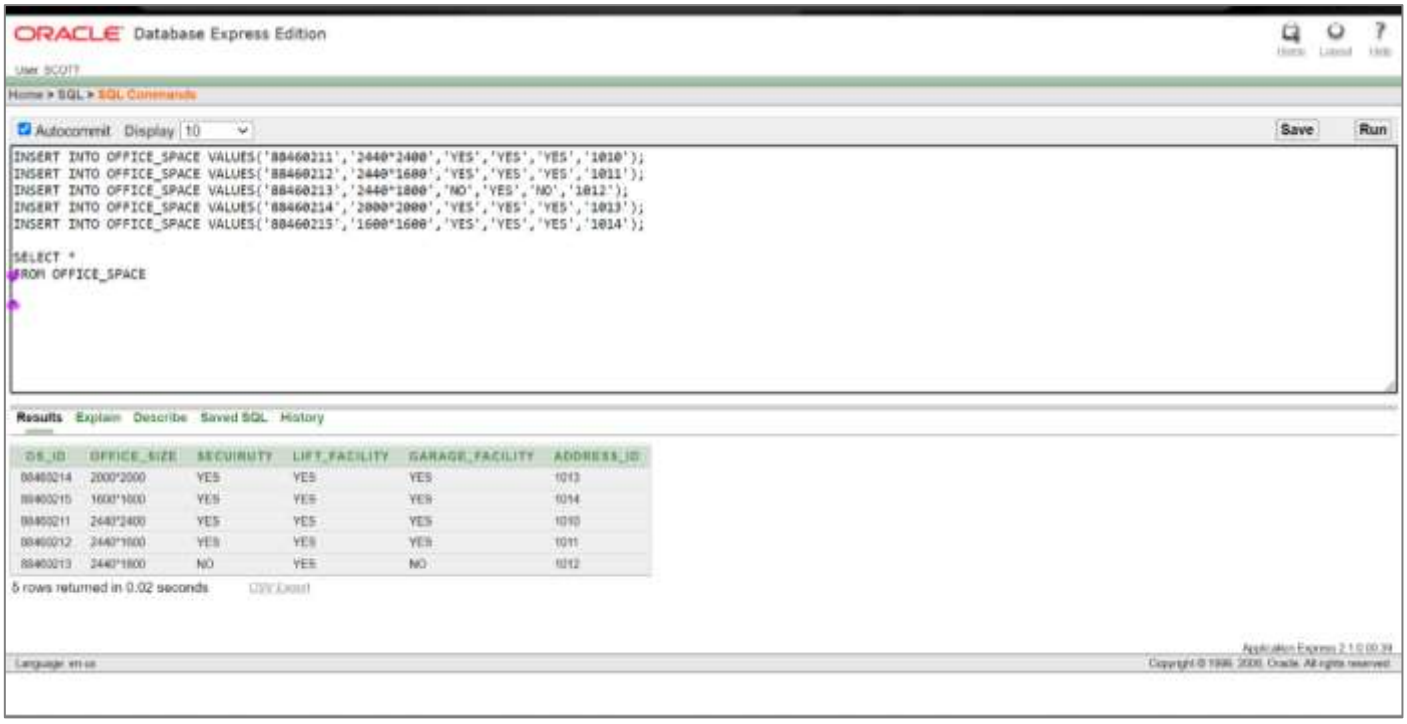
```
INSERT INTO FAMILY_HOUSE VALUES('88460111','YES','01','YES','1005');
INSERT INTO FAMILY_HOUSE VALUES('88460112','YES','02','NO','1006');
INSERT INTO FAMILY_HOUSE VALUES('88460113','YES','03','YES','1007');
INSERT INTO FAMILY_HOUSE VALUES('88460114','NO','04','NO','1008');
INSERT INTO FAMILY_HOUSE VALUES('88460115','NO','05','NO','1009');

SELECT *
FROM FAMILY_HOUSE
```



OFFICE SPACE TABLE:

14.

```
INSERT INTO OFFICE_SPACE
VALUES('88460211','2440*2400','YES','YES','YES','1010');
INSERT INTO OFFICE_SPACE
VALUES('88460212','2440*1600','YES','YES','YES','1011');
INSERT INTO OFFICE_SPACE
VALUES('88460213','2440*1800','NO','YES','NO','1012');
INSERT INTO OFFICE_SPACE
VALUES('88460214','2000*2000','YES','YES','YES','1013');
INSERT INTO OFFICE_SPACE
VALUES('88460215','1600*1600','YES','YES','YES','1014');

SELECT *
FROM OFFICE_SPACE
```



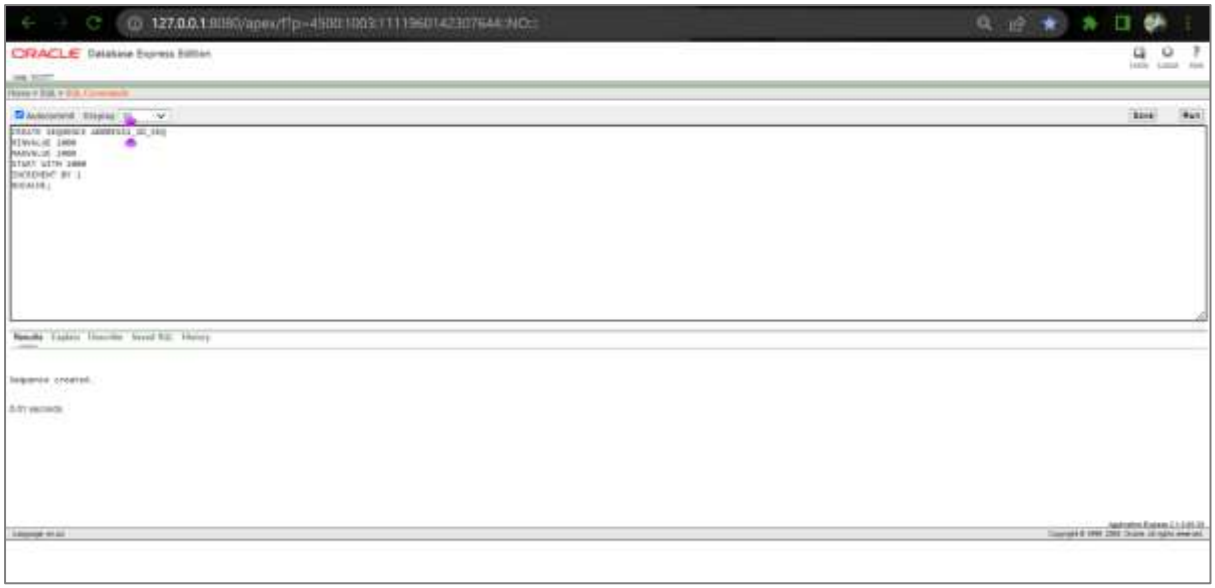
Sequence:

1.

```
CREATE SEQUENCE PHONE_ID_SEQ
MINVALUE 1
MAXVALUE 100
START WITH 1
INCREMENT BY 1
NOCACHE;
```

2.

```
CREATE SEQUENCE NID1_SEQ
MINVALUE 101
MAXVALUE 200
START WITH 101
INCREMENT BY 1
NOCACHE;
```

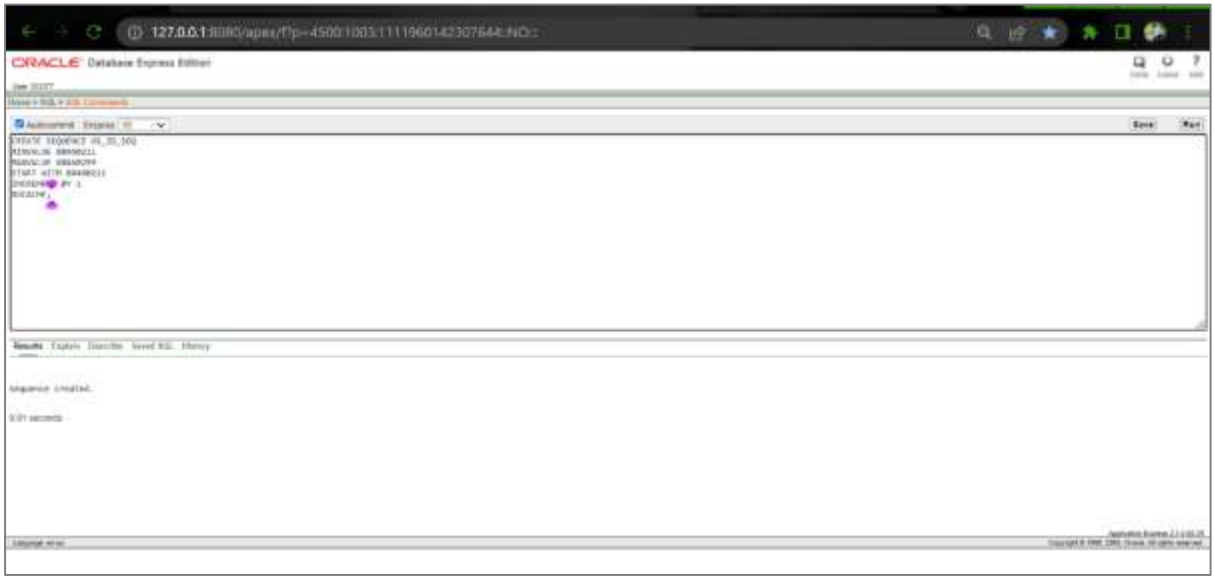


3.
CREATE SEQUENCE ADDRESS1_ID_SEQ
MINVALUE 1000
MAXVALUE 2000
START WITH 1000
INCREMENT BY 1
NOCACHE;

4.
CREATE SEQUENCE EID_SEQ
MINVALUE 2201
MAXVALUE 2299
START WITH 2201
INCREMENT BY 1
NOCACHE;

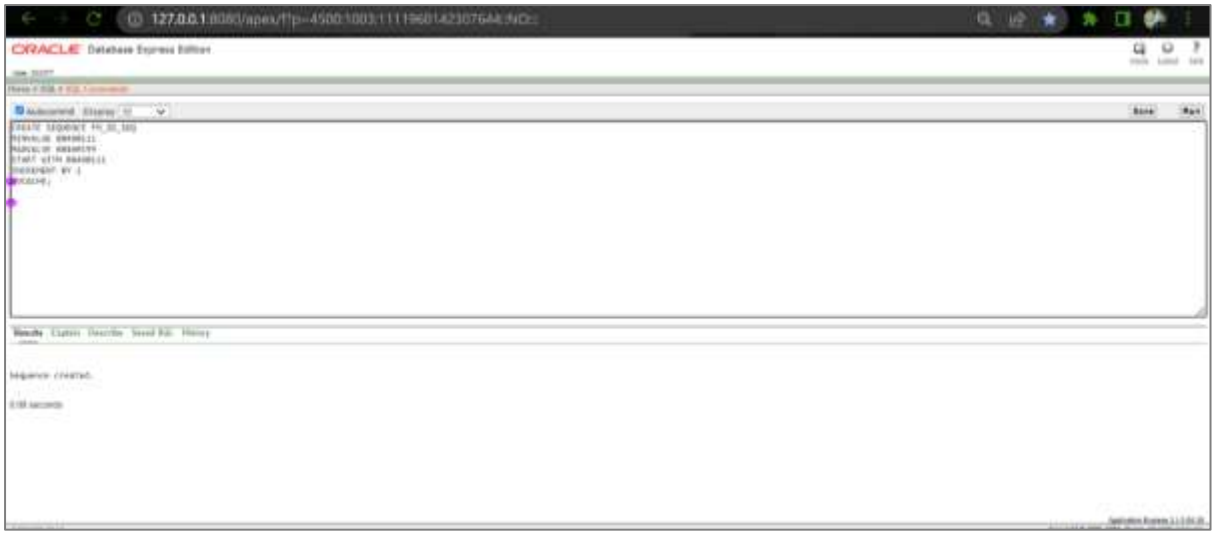
5.

```
CREATE SEQUENCE DEPTCODE_SEQ
MINVALUE 8801
MAXVALUE 8820
START WITH 8801
INCREMENT BY 1
NOCACHE;
```



6.

```
CREATE SEQUENCE HO_ID_SEQ
MINVALUE 884601
MAXVALUE 884699
START WITH 884601
INCREMENT BY 1
NOCACHE;
```



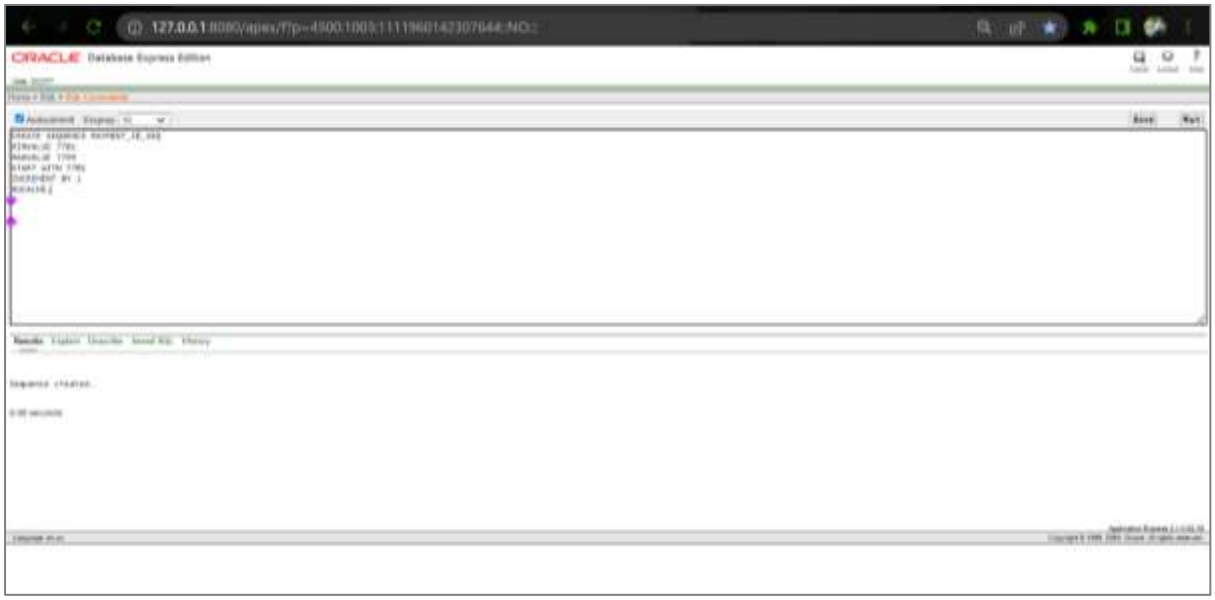
7.

```
CREATE SEQUENCE CU_ID_SEQ
MINVALUE 884701
MAXVALUE 884799
START WITH 884701
INCREMENT BY 1
NOCACHE;
```

8.

```
CREATE SEQUENCE PAYMENT_ID_SEQ
MINVALUE 7701
MAXVALUE 7799
START WITH 7701
INCREMENT BY 1
NOCACHE;
```

9.
CREATE SEQUENCE MECH_ID_SEQ
MINVALUE 88460011
MAXVALUE 88460099
START WITH 88460011
INCREMENT BY 1
NOCACHE;



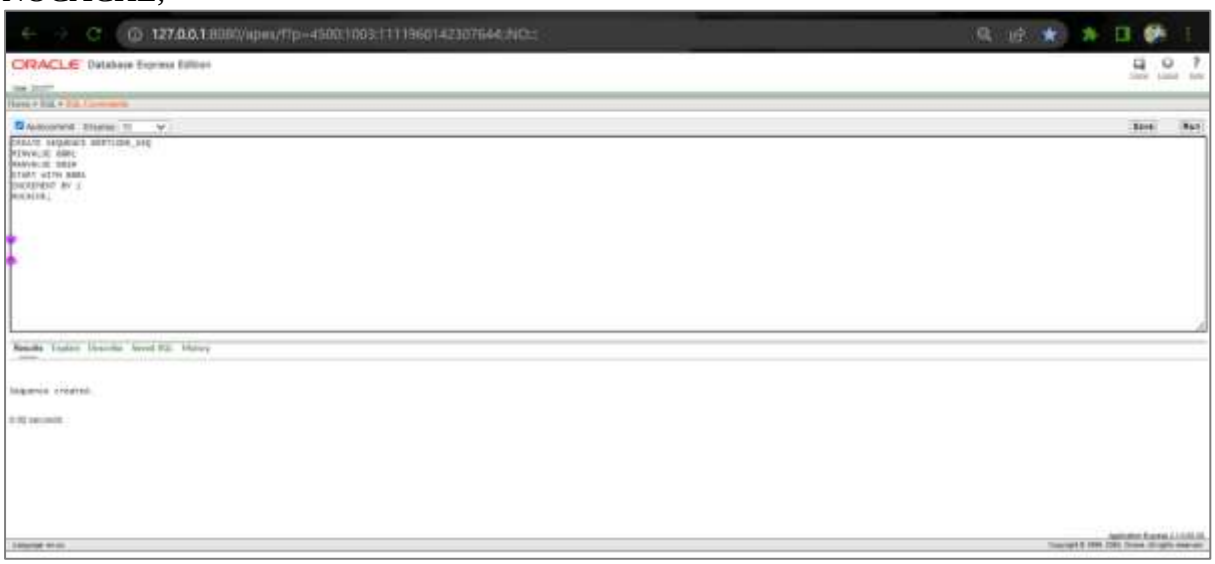
10.
CREATE SEQUENCE SUBLET_ID_SEQ
MINVALUE 8846001001
MAXVALUE 8846001200

START WITH 8846001001
INCREMENT BY 1
NOCACHE;

11.
CREATE SEQUENCE FM_ID_SEQ
MINVALUE 88460111
MAXVALUE 88460199
START WITH 88460111
INCREMENT BY 1
NOCACHE;

12.
CREATE SEQUENCE OS_ID_SEQ
MINVALUE 88460211
MAXVALUE 88460299
START WITH 88460211

INCREMENT BY 1
NOCACHE;



13.
CREATE SEQUENCE RI_ID_SEQ
MINVALUE 88460501
MAXVALUE 88460999
START WITH 88460511
INCREMENT BY 1
NOCACHE;

Queries:

1.Show the Employee ID,Salary, First & Last name from Employee and Name Table using Joining

E_ID	SALARY	FIRST_NAME	LAST_NAME
2201	10000	HABIUR	RAHAMAN
2202	10000	SAHADAT	HOSSAIN
2203	10000	SABAB	RAHAMAN
2204	10000	RICKI	SEN
2205	10000	DIPON	BISWAS

```
SELECT EMPLOYEE.E_ID,EMPLOYEE.SALARY,NAME.FIRST_NAME, NAME.LAST_NAME
FROM EMPLOYEE,NAME
WHERE EMPLOYEE.NID=NAME.NID;
```

2. Write a Query to show the Price and Payment-id from Payment Table where the price is greater then the price of Payment_id = 7702.

```
SELECT PAYMENT_ID,PRICE
FROM PAYMENT
WHERE PRICE>(SELECT PRICE
        FROM PAYMENT
        WHERE PAYMENT_ID = 7702);
```

PAYMENT_ID	PRICE
7703	14000
7704	16000
7705	18000

3. Show the Minimum price, Maximum Price avg Price from Payment Table

```
SELECT MIN(PRICE),MAX(PRICE),AVG(PRICE)
FROM PAYMENT
```

MIN(PRICE)	MAX(PRICE)	AVG(PRICE)
10000	18000	14000

4.Write a query to join Sublet table and Name Table & find the Sublets name where name ha S letter at first

```
SELECT S.NID,S.CITY,N.FIRST_NAME,N.NID
FROM SUBLET S,NAME N
WHERE S.NID=N.NID
AND FIRST_NAME LIKE 'S%'
```

no data found

5. Create a view for customer 884701 & 884704 to show their ID and Address

```
CREATE VIEW CUSTOMERVU
AS SELECT CU_ID ID,CITY ADDRRESS
FROM CUSTOMER
WHERE CU_ID = 884701
OR CU_ID = 884704

SELECT *
FROM CUSTOMERVU
```

ID	ADDRRESS
884701	DHAKA
884704	KHULNA

6. Create view for Family house table to show ID, Bed No, Lift Facility

```
CREATE VIEW FAMILY_HOUSEVU
AS SELECT FH_ID ID,LIFT_FACILITY LIFT,BED_NO BEDROOM
FROM FAMILY_HOUSE
SELECT *
FROM FAMILY_HOUSEVU
```

ID	LIFT	BEDROOM
88460111	YES	1
88460112	NO	2
88460113	YES	3
88460114	NO	4
88460115	NO	5

7. Use Literal Character query to show all the output like " #### use Bkash to pay the Price ###"

From Payment table

```
SELECT PAYMENT_ID||' use '||PAYMENT_METHOD||' to pay price '||PRICE
FROM PAYMENT
```

PAYMENT_ID||'USE'||PAYMENT_METHOD||'TOPAYPRICE'||PRICE
7701 use BKASH to pay price 10000
7702 use NAGAD to pay price 12000
7703 use ROCKET to pay price 14000
7704 use UPAY to pay price 16000
7705 use SURECASH to pay price 18000

8. Increase the Salary by 5000 of the Finance Department AND Marketing Department

```
SELECT DEPT_NAME,SALARY+5000
FROM DEPARTMENT
WHERE DEPT_NAME = 'FINANCE'
OR DEPT_NAME = 'MARKETING'
```

DEPT_NAME	SALARY+5000
FINANCE	15000
MARKETING	25000

9. Show the city,street no, house no, of House Owner from House Owner and Address Table

```
SELECT HOUSE_OWNER.HO_ID,ADDRESS.HOUSE_NO,ADDRESS.STREET_NO,ADDRESS.CITY
FROM HOUSE_OWNER,ADDRESS
WHERE HOUSE_OWNER.ADDRESS_ID=ADDRESS.ADDRESS_ID;
```

HO_ID	HOUSE_NO	STREET_NO	CITY
884601	314	612	CTG
884602	317	125	DHAKA
884603	312	516	COXSBAZAR
884604	316	197	PEKUA
884605	315	188	KULNA

10. Find the Salary & the Name of the Department where Salary is greater then 2000

```
SELECT DEPT_CODE,DEPT_NAME,SALARY
FROM DEPARTMENT
WHERE SALARY < 20000
```

DEPT_CODE	DEPT_NAME	SALARY
8801	FINANCE	10000
8802	ACCOUNTING	15000