AMERICAN INTERNATIONAL UNIVERSITY–BANGLADESH (AIUB)

Faculty of Engineering (CSE)

INTRODUCTION TO DATABASE (CSC2108)

Fall 2022-2023

Section: O

ICE CREAM SHOP MANAGEMENT SYSTEM

Supervised By:

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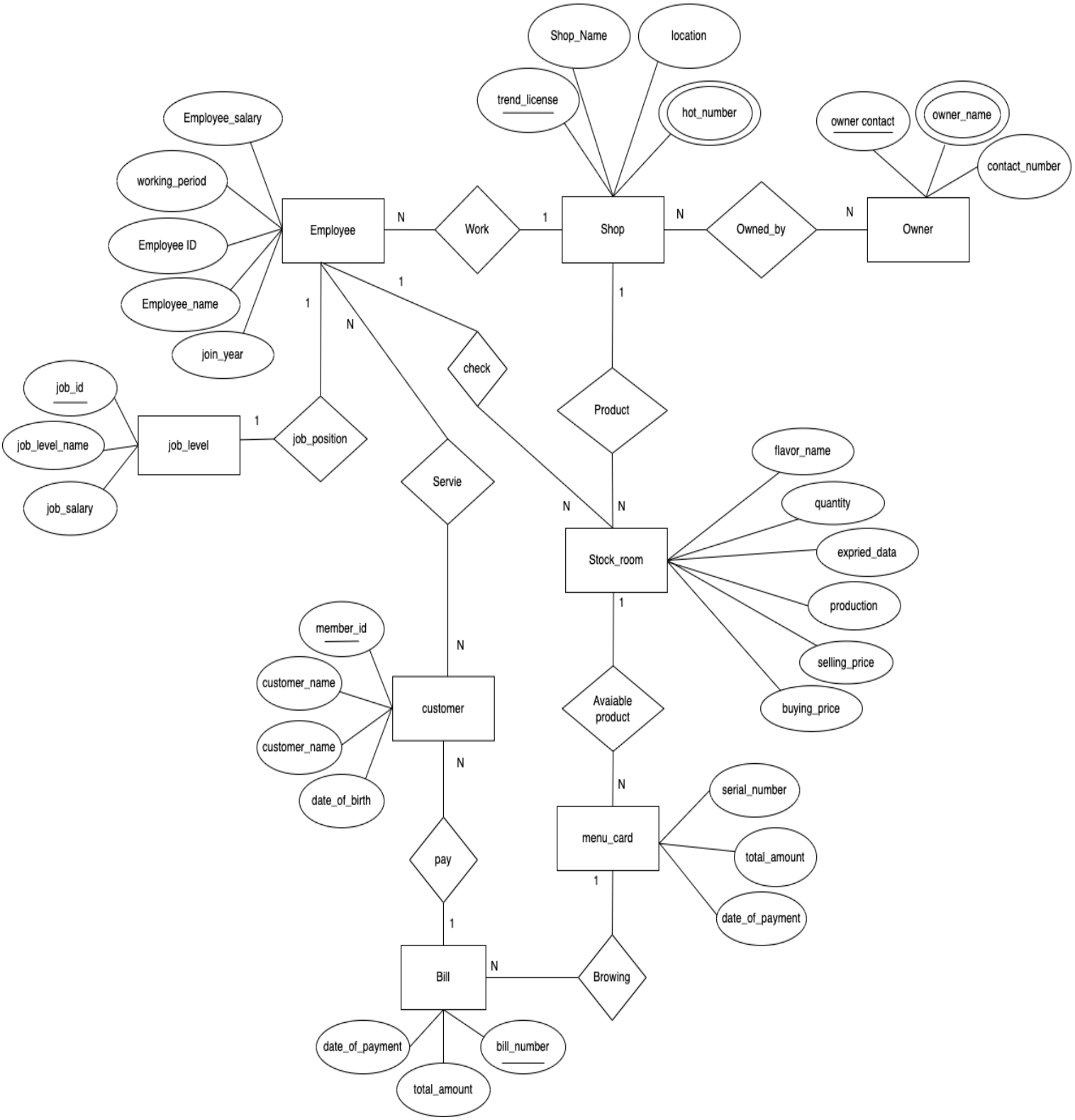
CASE STUDY:

In Ice-cream shop management system where store many information which is related with this shop like trend_license_number which is unique number, shop_name ,hotline_number and location. Many customers can visit to the shop at a time. They take sit and brows the menu card and order ice-cream. For every customer have a unique member_id which will help identify a customer easier way .Also store customer_name ,contact_number .The menu_card have a serial_number ,flavor_name, price. Menu cards take information from stock. After order ice-cream customer need to pay bill. Bill have date_of_payment ,bill_number,total_amount. At the same time shop may have many owners.And A owner can have many shop at a time but they have atlest one shop. So, here we also store owners information like owner_name ,contact_number, owner_id. owner_id is different for every owner. Many employees work for an ice-cream shop, and they divided by the job_level. Every employee have their unique employee_id and also store employee_name ,employee_salary ,joning_year, working _period and job_id .Employee give many services to customers and also they get order from the owners. Job_level_id is unique number for one level. Job level also have jobe_level_name and employee_id . Employee always looks after the stock. Stock contain flavor_name which is different for every flavor ,quantity ,buying_price ,selling_price ,production_date ,expired_date .Shop have at least one shock room. On the stock room store ice cream.

E-R DIAGRAM:


Shop_Name
location
trend_license
hot_number
Employee_salary
working_period
Employee ID
Employee_name
join_year
Employee
N
Work
1
Shop
N
Owned_by
N
Owner
owner contact
owner_name
contact_number
1
1
N
check
1
job_id
job_level_name
job_salary
job_level
1
job_position
Product
Servie
N
N
flavor_name
quantity
expried_data
production
selling_price
buying_price
Stock_room
1
member_id
customer_name
customer_name
date_of_birth
customer
N
Avaiable product
N
N
pay
menu_card
serial_number
total_amount
date_of_payment
1
1
Bill
N
Browing
date_of_payment
bill_number
total_amount

NORMALIZATION :

1. **Work**(trend_license,shop_name,hot_number,location,employee_id,employee_name,employee_salary,working_period,join_year)

   1NF : hot_number is multivalued attribute .

   2NF: trend_license,shop_name,hot_number,location.
   employee_id,employee_name,employee_salary,working_period,join_year, trend_license.

   3NF: trend_license,shop_name,hot_number,location.
   employee_id,employee_name,employee_salary,working_period,join_year,trend_license.

   TABLE :
   i. trend_license,shop_name,hot_number,location, employee_id.
   ii. employee_id,employee_name,employee_salary,working_period,join_year.

2. **Owned**(trend_license,shop_name,hot_number,location,owner_id,owner_name,contact_number)

   1NF : hot_number , owner_name is multivalued attribute.

   2NF : trend_license ,shop_name ,hot_number,location.
   owner_id,owner_name,contact_number, trend_license.

   3NF : trend_license ,shop_name ,hot_number,location.
   owner_id,owner_name,contact_number, trend_license.

   TABLE:
   i. trend_license ,shop_name ,hot_number,location.
   ii. owner_id,owner_name,contact_number, trend_license.

3. **Have**(trend_license,shop_name,hot_number,location,flavor_name,quantity,buying_price,selling_price,expire_date,production_date)

1NF : No multivalued attribute.

2NF : trend_license,shop_name,hot_number,location.

flavor_name,quantity,buying_price,selling_price,expire_date,production_date,trend_license.

3NF : trend_license,shop_name,hot_number,location.

flavor_name,quantity, total_profit, product_validity, trend_license.

total_profit, buying_price, selling_price.

product_validity, expire_date,production_date.

TABLE :

i. trend_license,shop_name,hot_number,location.
ii. flavor_name,quantity,buying_price,selling_price, trend_license, product_validity.
iii. product_validity, expire_date,production_date.
iv. total_profit, buying_price, selling_price.

4. **Order**(owner_id,owner_name,contact_number,employee_id,employee_name,employee_salary,working_period,join_year)

1NF : owner_name is multivalued attribute.

2NF : owner_id,owner_name,contact_number.
employee_id,employee_name,employee_salary,working_period,join_year.
oe_id,owner_id, employee_id.

3NF : owner_id,owner_name,contact_number.
employee_id,employee_name,employee_salary,working_period,join_year.
oe_id,owner_id, employee_id.

TABLE :

i. owner_id,owner_name,contact_number.
ii. employee_id,employee_name,employee_salary,working_period,join_year.
iii. oe_id,owner_id, employee_id.

5. **Check**(employee_id,employee_name,employee_salary,working_period,join_year,flavor_name,quantity,buying_price,selling_price,expire_date,production_date)

1NF : No multivalued attribute.

2NF : employee_id,employee_name,employee_salary,working_period,join_year.
flavor_name,quantity,buying_price,selling_price,expire_date,production_date.
es_id,employee_id,flavor_name.

3NF : employee_id,employee_name,employee_salary,working_period,join_year.
flavor_name,quantity,total_profit,product_validity.
total_profit,buying_price,selling_price.
product_validity, expire_date,production_date.
es_id,employee_id,flavor_name.

TABLE :

i. employee_id,employee_name,employee_salary,working_period,join_year.
ii. flavor_name,quantity,total_profit,product_validity.
iii. total_profit,buying_price,selling_price.
iv. product_validity, expire_date,production_date.
v. es_id,employee_id,flavor_name.

6. **Service**(employee_id,employee_name,employee_salary,working_period,join_year,member_id,customer_name,customer_number,dob)

1NF : No multivalued attribute.

2NF : employee_id,employee_name,employee_salary,working_period,join_year.
member_id,customer_name,customer_number,dob.
em_id , employee_id,member_id.

3NF : employee_id,employee_name,employee_salary,working_period,join_year.
member_id,customer_name,customer_number, dob.
em_id , employee_id,member_id.

TABLE :

i. employee_id,employee_name,employee_salary,working_period,join_year.
ii. member_id,customer_name,customer_number.
iii. em_id , employee_id,member_id.

7. **Job_position**(employee_id,employee_name,employee_salary,working_period,join_year,jod_id,job_level_name, job_salary)

1NF : No multivalued attribute.

2NF : employee_id,employee_name,employee_salary,working_period,join_year, job_salary.
jod_id,job_level_name,employee_id.

3NF : employee_id,employee_name,employee_salary,working_period,join_year, job_salary.
jod_id,job_level_name,employee_id.

TABLE :
(i). employee_id,employee_name,employee_salary,working_period,join_year.
(ii). jod_id,job_level_name,employee_id.

8. **Pay**(bill_number,total_amount,date_of_payment,member_id,customer_name,customer_number)

1NF : No multivalued attribute.

2NF : bill_number,total_amount,date_of_payment.
member_id,customer_name,customer_number,bill_number.

3NF : bill_number,total_amount,date_of_payment.
member_id,customer_name,customer_number,bill_number.

TABLE :
i. bill_number,total_amount,date_of_payment.
ii. member_id,customer_name,customer_number,bill_number.

9. **Browsing**(serial_number,total_amount, member_id,customer_name,customer_number)

1NF : No multivalued attribute.
2NF : serial_number,total_amount.
member_id,customer_name,customer_number,serial_number .

3NF : serial_number,price.
member_id,customer_name,customer_number,serial_number .

TABLE :

i. serial_number,price.
ii. member_id,customer_name,customer_number,serial_number .

10. **Taken**(serial_number,total_amount,flavor_name,quantity,buying_price,selling_price,expire_date,production_date)

1NF : No multivalued attribute.
2NF : serial_number,total_amount,flavor_name.
flavor_name,quantity,buying_price,selling_price,expire_date,production_date.

3NF : serial_number,total_amount,flavor_name.
flavor_name,quantity,total_profit, product_validity.
total_profit,buying_price,selling_price.
product_validity, expire_date,production_date.

TABLE :

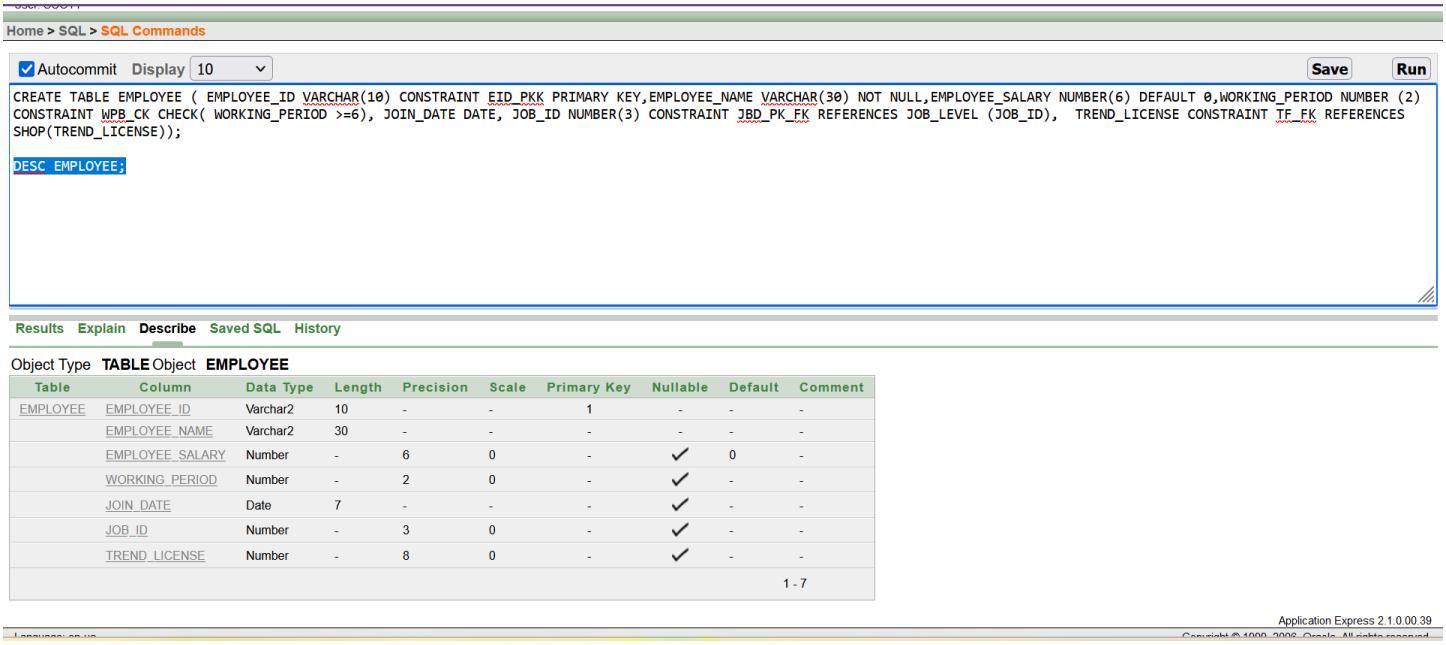
i. serial_number,total_amount,flavor_name.
ii. flavor_name,quantity,total_profit, product_validity.
iii. total_profit,buying_price,selling_price.
iv. product_validity, expire_date,production_date.

Final Table :

1. trend_license, shop_name, hot_number, location.
2. employee_id, employee_name, employee_salary, working_period, join_year, trend_license
3. jod_id,job_level_name,employee_id, job salary.
4. owner_id, owner_name, contact_number, trend_license.
5. flavor_name, quantity, total_profit, product_validity, trend_license.
6. total_profit, buying_price, selling_price.
7. product_validity, expire_date,production_date.
8. oe_id,owner_id, employee_id.
9. es_id,employee_id,flavor_name.
10. em_id , employee_id, member_id.
11. bill_number, total_amount, date_of_payment.
12. member_id,customer_name,customer_number,serial_number , dob.
13. member_id, customer_name, customer_number, bill_number, DOB.
14. serial_number,price,flavor_name.

TABLE CREATION :

1. **CREATE TABLE EMPLOYEE (EMPLOYEE_ID VARCHAR(10) CONSTRAINT EID_PKK PRIMARY KEY,EMPLOYEE_NAME VARCHAR(30) NOT NULL,EMPLOYEE_SALARY NUMBER(6) DEFAULT 0,WORKING_PERIOD NUMBER (2) CONSTRAINT WPB_CK CHECK(WORKING_PERIOD >=6), JOIN_DATE DATE, JOB_ID NUMBER(3) CONSTRAINT JBD_PK_FK REFERENCES JOB_LEVEL (JOB_ID), TREND_LICENSE CONSTRAINT TF_FK REFERENCES SHOP(TREND_LICENSE));**



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```
CREATE TABLE EMPLOYEE ( EMPLOYEE_ID VARCHAR(10) CONSTRAINT EID_PKK PRIMARY KEY,EMPLOYEE_NAME VARCHAR(30) NOT NULL,EMPLOYEE_SALARY NUMBER(6) DEFAULT 0,WORKING_PERIOD NUMBER (2)
CONSTRAINT WPB_CK CHECK( WORKING_PERIOD >=6), JOIN_DATE DATE, JOB_ID NUMBER(3) CONSTRAINT JBD_PK_FK REFERENCES JOB_LEVEL (JOB_ID),  TREND_LICENSE CONSTRAINT TF_FK REFERENCES
SHOP(TREND_LICENSE));

DESC EMPLOYEE;
```

Results Explain Describe Saved SQL History

Object Type **TABLE** Object **EMPLOYEE**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPLOYEE	EMPLOYEE_ID	Varchar2	10	-	-	1	-	-	-
	EMPLOYEE_NAME	Varchar2	30	-	-	-	-	-	-
	EMPLOYEE_SALARY	Number	-	6	0	-	✓	0	-
	WORKING_PERIOD	Number	-	2	0	-	✓	-	-
	JOIN_DATE	Date	7	-	-	-	✓	-	-
	JOB_ID	Number	-	3	0	-	✓	-	-
	TREND_LICENSE	Number	-	8	0	-	✓	-	-

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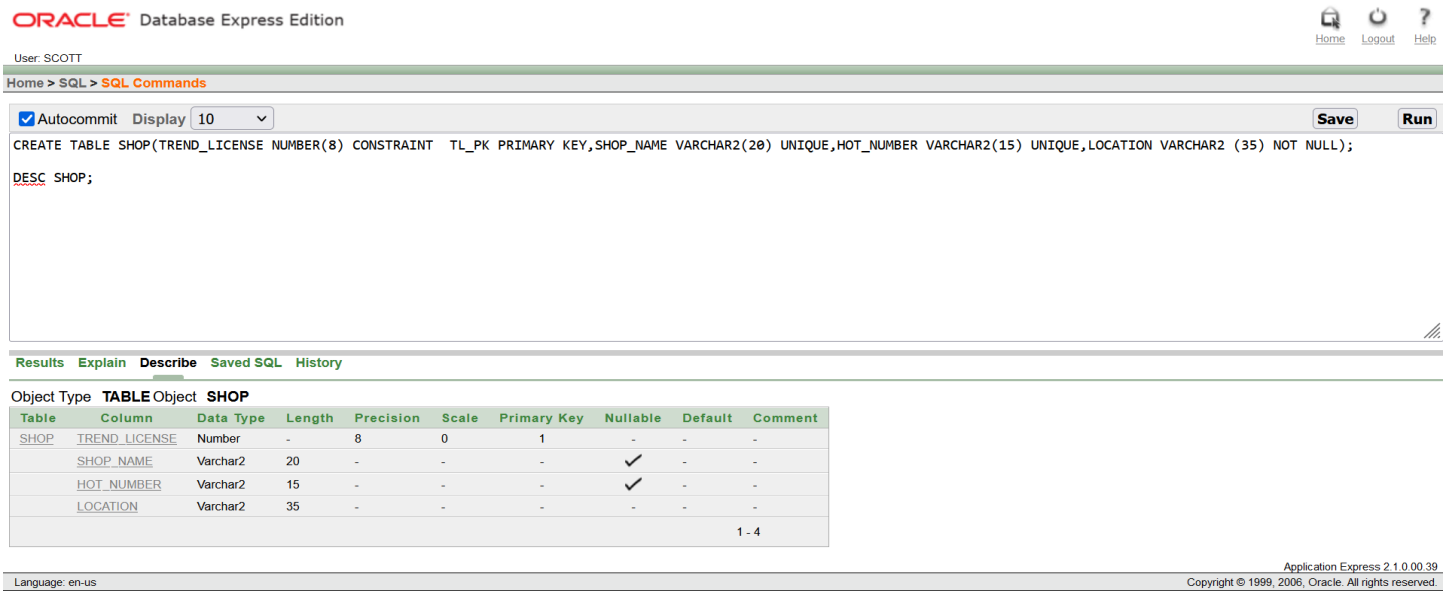
2. **CREATE TABLE SHOP(TREND_LICENSE NUMBER(8) CONSTRAINT TL_PK PRIMARY KEY,SHOP_NAME VARCHAR2(20) UNIQUE,HOT_NUMBER VARCHAR2(15) UNIQUE,LOCATION VARCHAR2 (35) NOT NULL);**



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```
CREATE TABLE SHOP(TREND_LICENSE NUMBER(8) CONSTRAINT  TL_PK PRIMARY KEY,SHOP_NAME VARCHAR2(20) UNIQUE,HOT_NUMBER VARCHAR2(15) UNIQUE,LOCATION VARCHAR2 (35) NOT NULL);

DESC SHOP;
```

Results Explain Describe Saved SQL History

Object Type **TABLE** Object **SHOP**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
SHOP	TREND_LICENSE	Number	-	8	0	1	-	-	-
	SHOP_NAME	Varchar2	20	-	-	-	✓	-	-
	HOT_NUMBER	Varchar2	15	-	-	-	✓	-	-
	LOCATION	Varchar2	35	-	-	-	-	-	-

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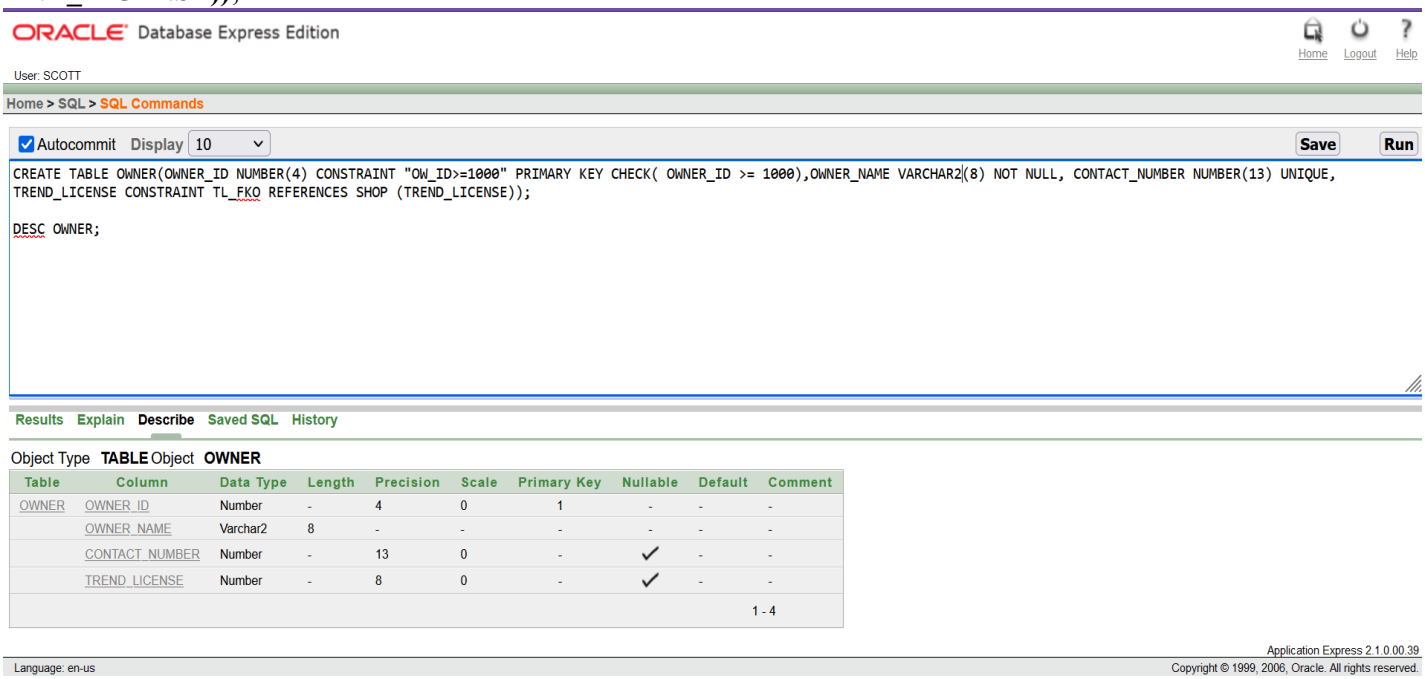
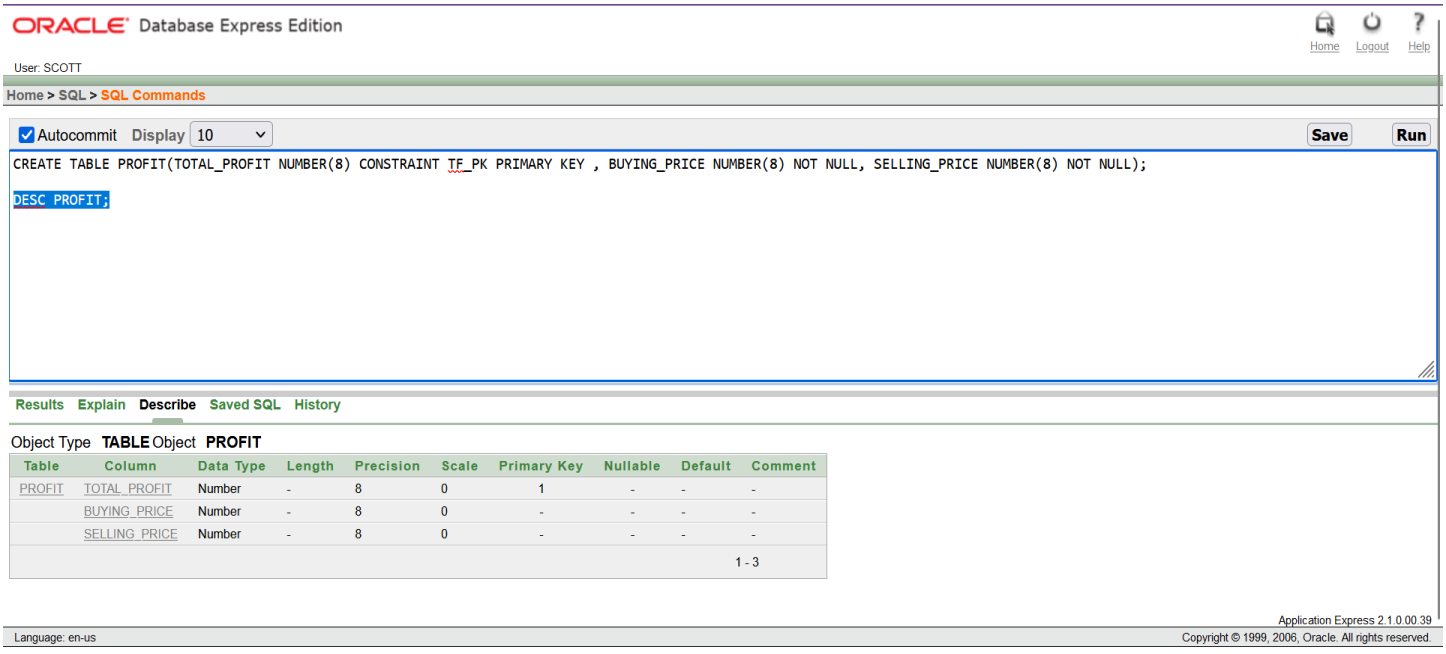
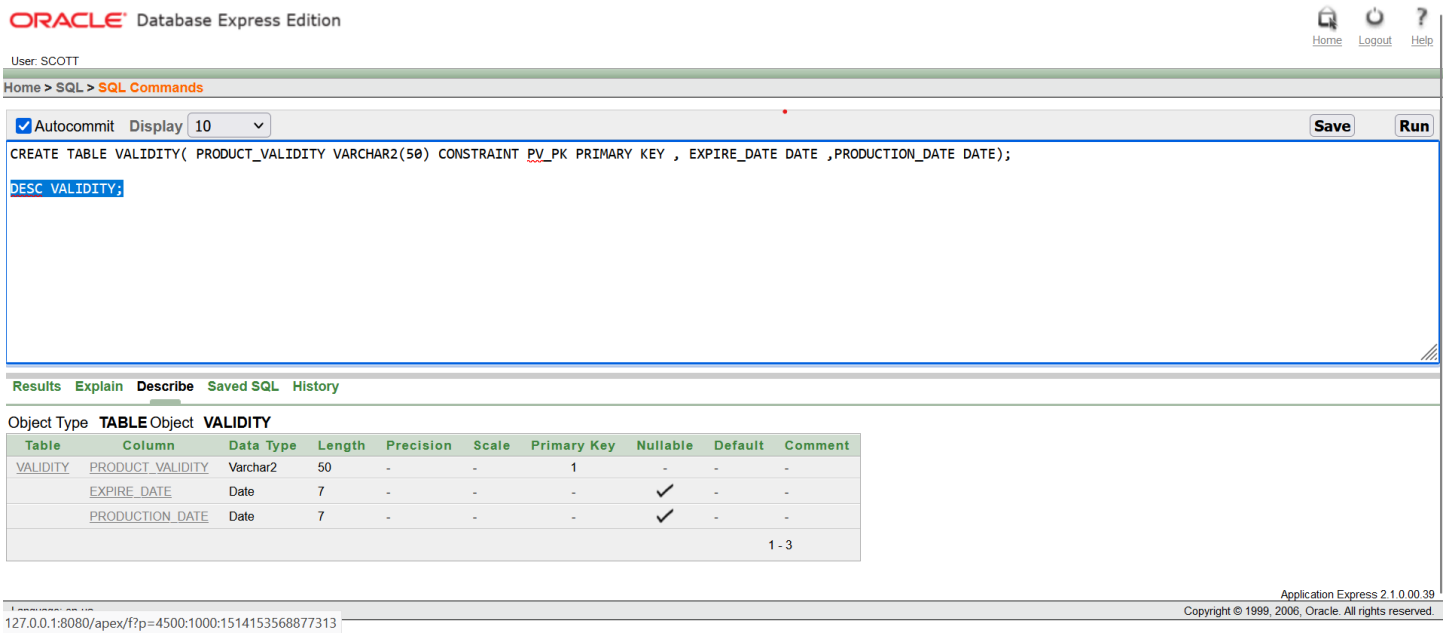
3. **CREATE TABLE OWNER(OWNER_ID NUMBER(4) CONSTRAINT "OW_ID>=1000" PRIMARY KEY CHECK(OWNER_ID >= 1000),OWNER_NAME VARCHAR2(8) NOT NULL, CONTACT_NUMBER NUMBER(13) UNIQUE, TREND_LICENSE CONSTRAINT TL_FKO REFERENCES SHOP (TREND_LICENSE));**



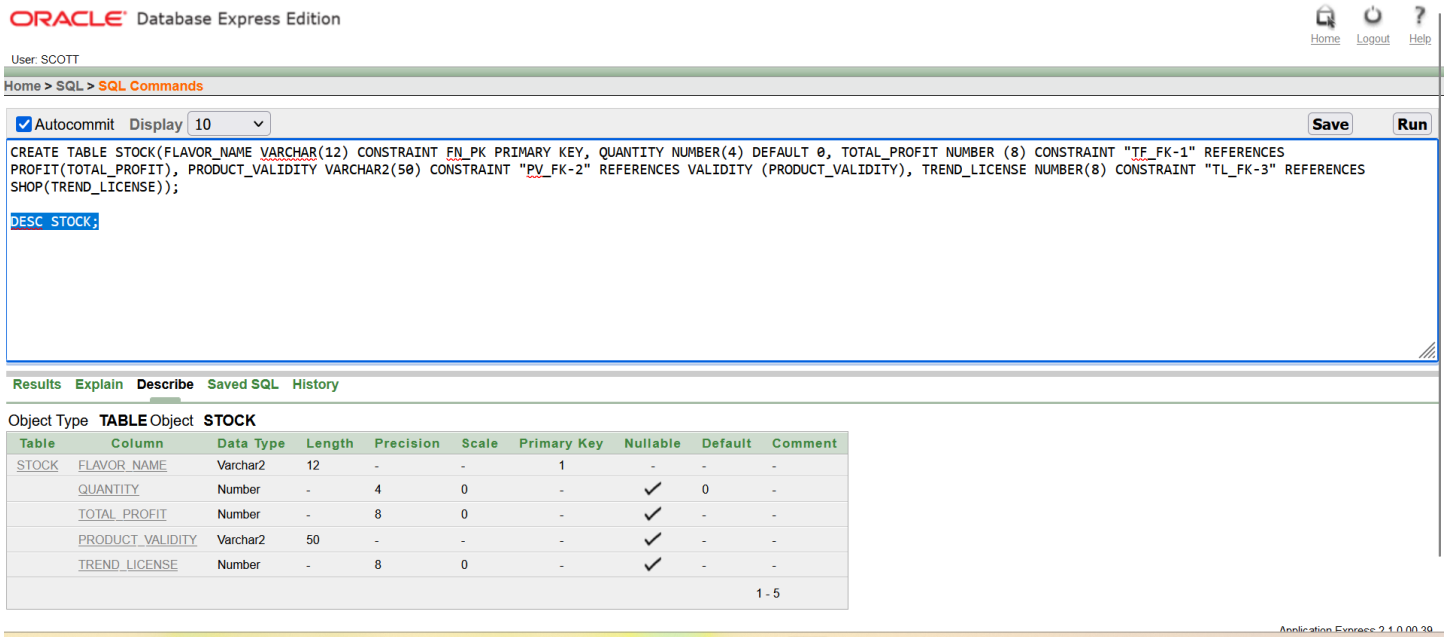
4. **CREATE TABLE PROFIT(TOTAL_PROFIT NUMBER(8) CONSTRAINT TF_PK PRIMARY KEY , BUYING_PRICE NUMBER(8) NOT NULL, SELLING_PRICE NUMBER(8) NOT NULL);**



5. **CREATE TABLE VALIDITY(PRODUCT_VALIDITY VARCHAR2(50) CONSTRAINT PV_PK PRIMARY KEY , EXPIRE_DATE DATE ,PRODUCTION_DATE DATE);**



6. **CREATE TABLE STOCK(FLAVOR_NAME VARCHAR(12) CONSTRAINT FN_PK PRIMARY KEY, QUANTITY NUMBER(4) DEFAULT 0, TOTAL_PROFIT NUMBER (8) CONSTRAINT "TF_FK-1" REFERENCES PROFIT(TOTAL_PROFIT), PRODUCT_VALIDITY VARCHAR2(50) CONSTRAINT "PV_FK-2" REFERENCES VALIDITY (PRODUCT_VALIDITY), TREND_LICENSE NUMBER(8) CONSTRAINT "TL_FK-3" REFERENCES SHOP(TREND_LICENSE));**



7. **CREATE TABLE ORDERS(OE_ID NUMBER(3) CONSTRAINT "OEID_PK>=100" PRIMARY KEY CHECK(OE_ID>=100),OWNER_ID NUMBER(4) CONSTRAINT OID_FK REFERENCES OWNER(OWNER_ID), EMPLOYEE_ID VARCHAR(10) CONSTRAINT EID_FK REFERENCES EMPLOYEE(EMPLOYEE_ID))**

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```
CREATE TABLE ORDERS(OE_ID NUMBER(3) CONSTRAINT "OEID_PK>=100" PRIMARY KEY CHECK(OE_ID>=100),OWNER_ID NUMBER(4) CONSTRAINT OID_FK REFERENCES OWNER( OWNER_ID), EMPLOYEE_ID
VARCHAR(10) CONSTRAINT EID_FK REFERENCES EMPLOYEE(EMPLOYEE_ID));

DESC ORDERS;
```

Results Explain Describe Saved SQL History

Object Type **TABLE** Object **ORDERS**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORDERS	OE_ID	Number	-	3	0	1	-	-	-
	OWNER_ID	Number	-	4	0	-	✓	-	-
	EMPLOYEE_ID	Varchar2	10	-	-	-	✓	-	-

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Language: en-us

8. CREATE TABLE EMPCHECK(ES_ID NUMBER(2) CONSTRAINT ES_ID_PK PRIMARY KEY,EMPLOYEE_ID VARCHAR(10) CONSTRAINT "EID_FK-1" REFERENCES EMPLOYEE(EMPLOYEE_ID),FLAVOR_NAME VARCHAR(12) CONSTRAINT FN_FK REFERENCES STOCK(FLAVOR_NAME))

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```
CREATE TABLE EMPCHECK(ES_ID NUMBER(2)  CONSTRAINT ES_ID_PK PRIMARY KEY,EMPLOYEE_ID VARCHAR(10) CONSTRAINT "EID_FK-1" REFERENCES EMPLOYEE(EMPLOYEE_ID),FLAVOR_NAME VARCHAR(12)
CONSTRAINT FN_FK REFERENCES STOCK(FLAVOR_NAME));

DESC EMPCHECK;
```

Results Explain Describe Saved SQL History

Object Type **TABLE** Object **EMPCHECK**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPCHECK	ES_ID	Number	-	2	0	1	-	-	-
	EMPLOYEE_ID	Varchar2	10	-	-	-	✓	-	-
	FLAVOR_NAME	Varchar2	12	-	-	-	✓	-	-

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Language: en-us

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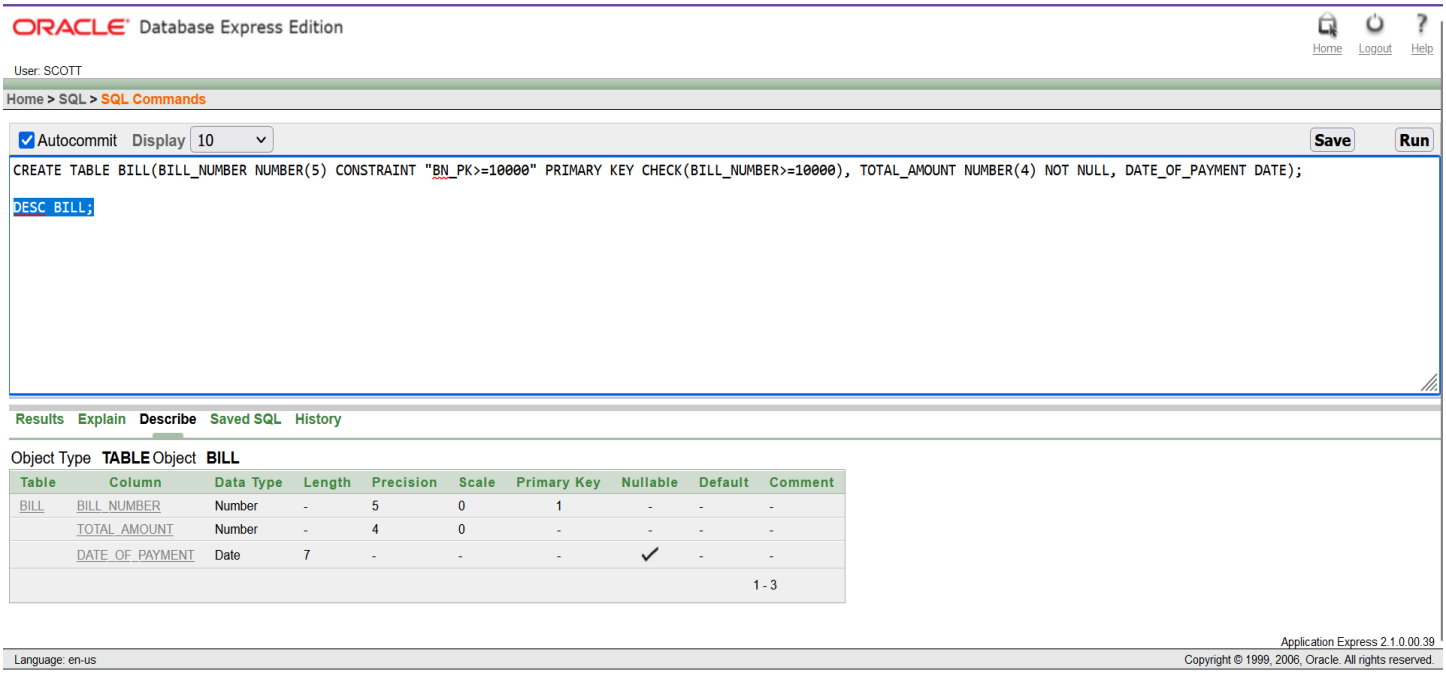
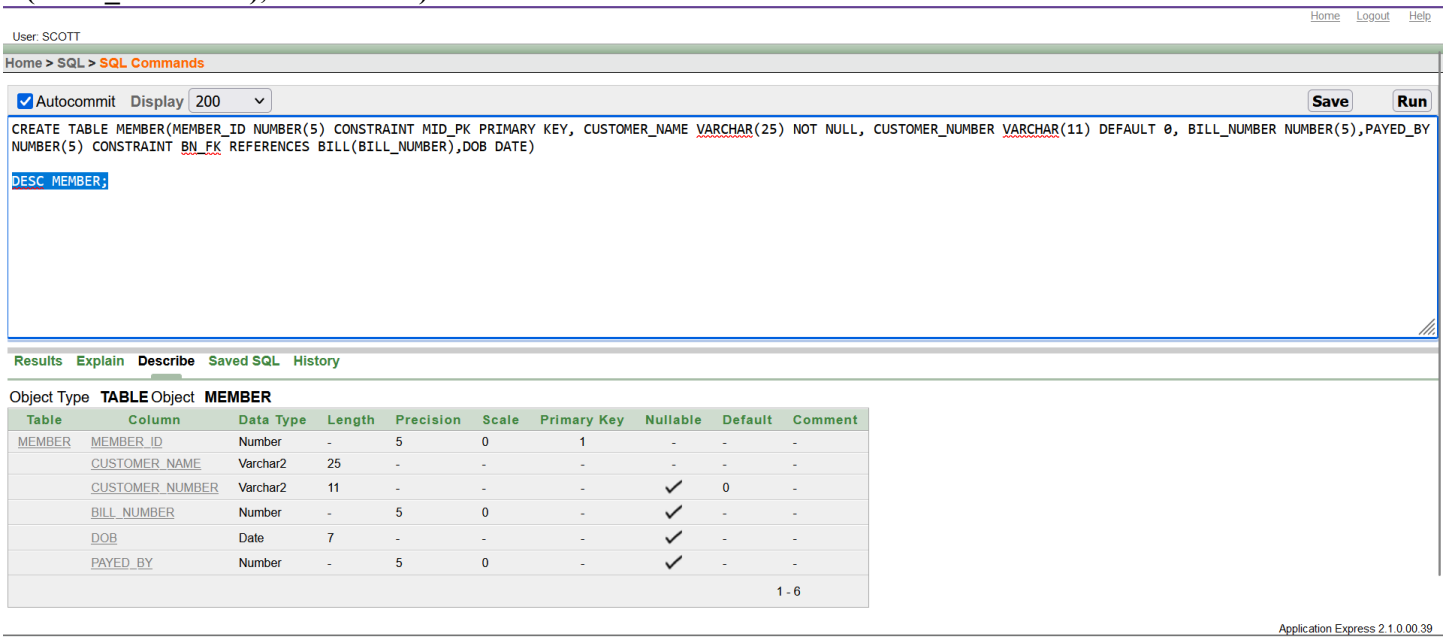
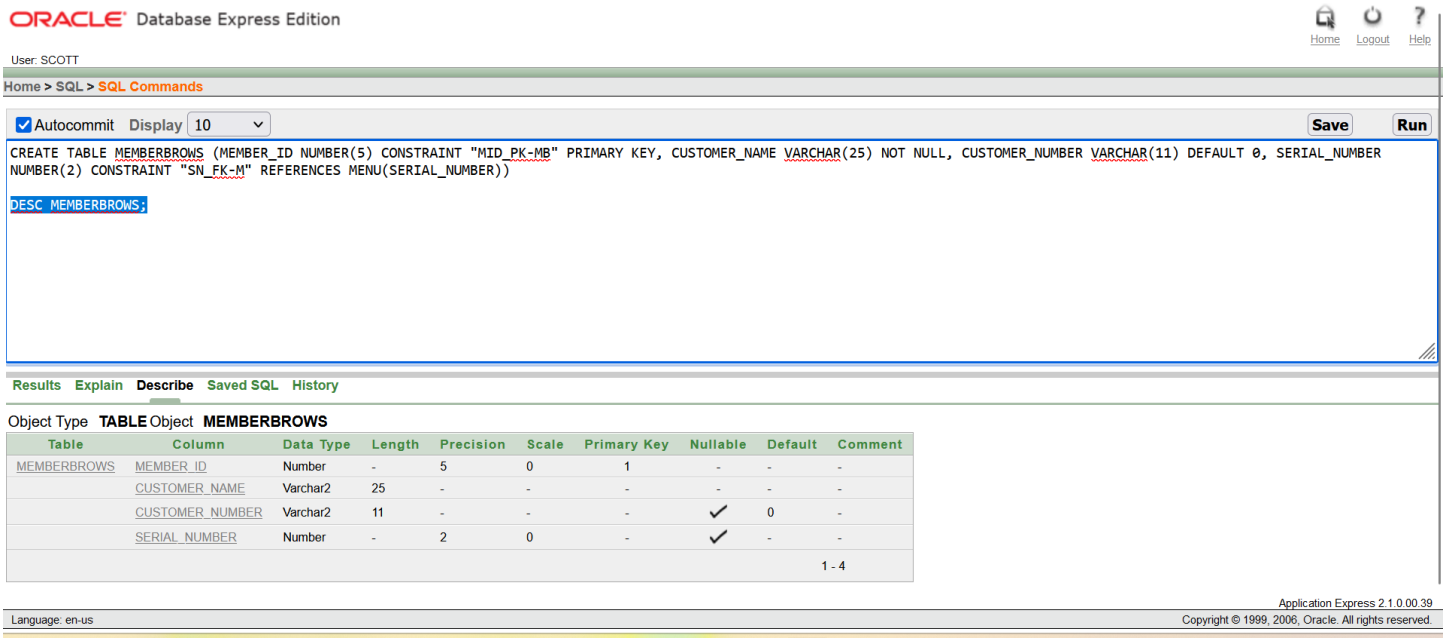
9. CREATE TABLE BILL(BILL_NUMBER NUMBER(5) CONSTRAINT "BN_PK>=10000" PRIMARY KEY CHECK(BILL_NUMBER>=10000), TOTAL_AMOUNT NUMBER(4) NOT NULL, DATE_OF_PAYMENT DATE)



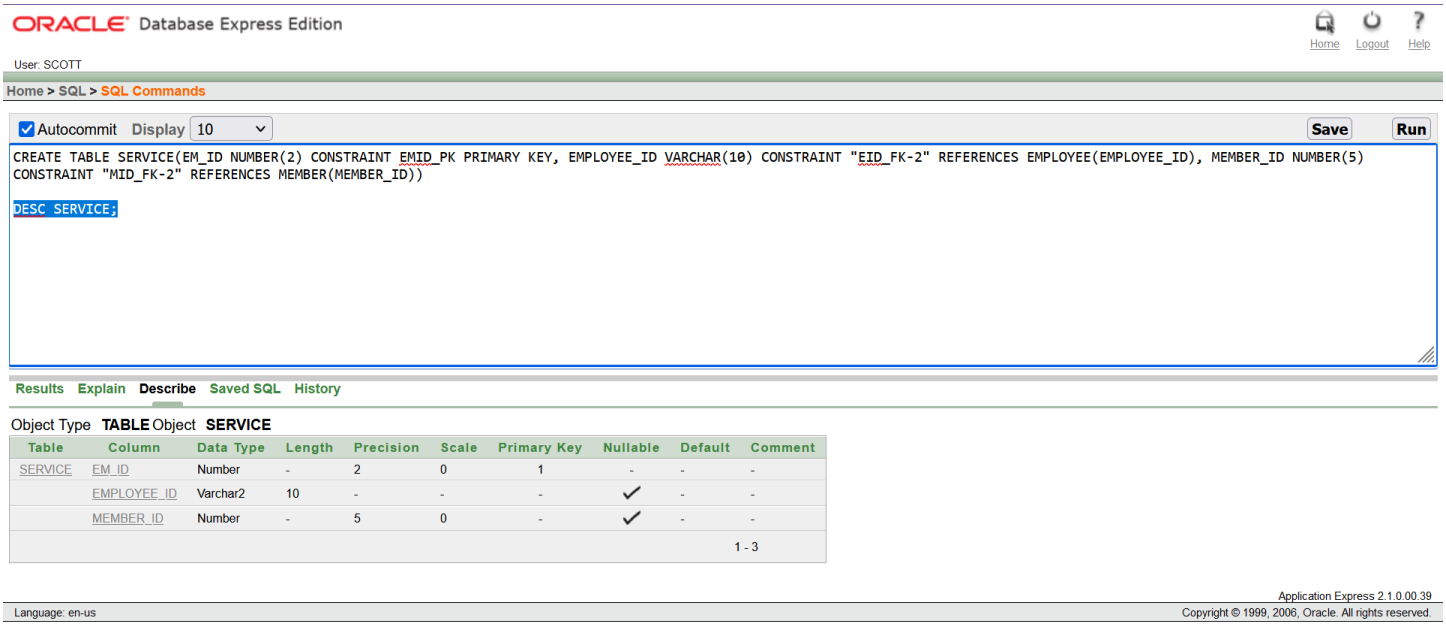
10. CREATE TABLE MEMBER(MEMBER_ID NUMBER(5) CONSTRAINT MID_PK PRIMARY KEY, CUSTOMER_NAME VARCHAR(25) NOT NULL, CUSTOMER_NUMBER VARCHAR(11) DEFAULT 0, BILL_NUMBER NUMBER(5),PAYED_BY NUMBER(5) CONSTRAINT BN_FK REFERENCES BILL(BILL_NUMBER),DOB DATE)



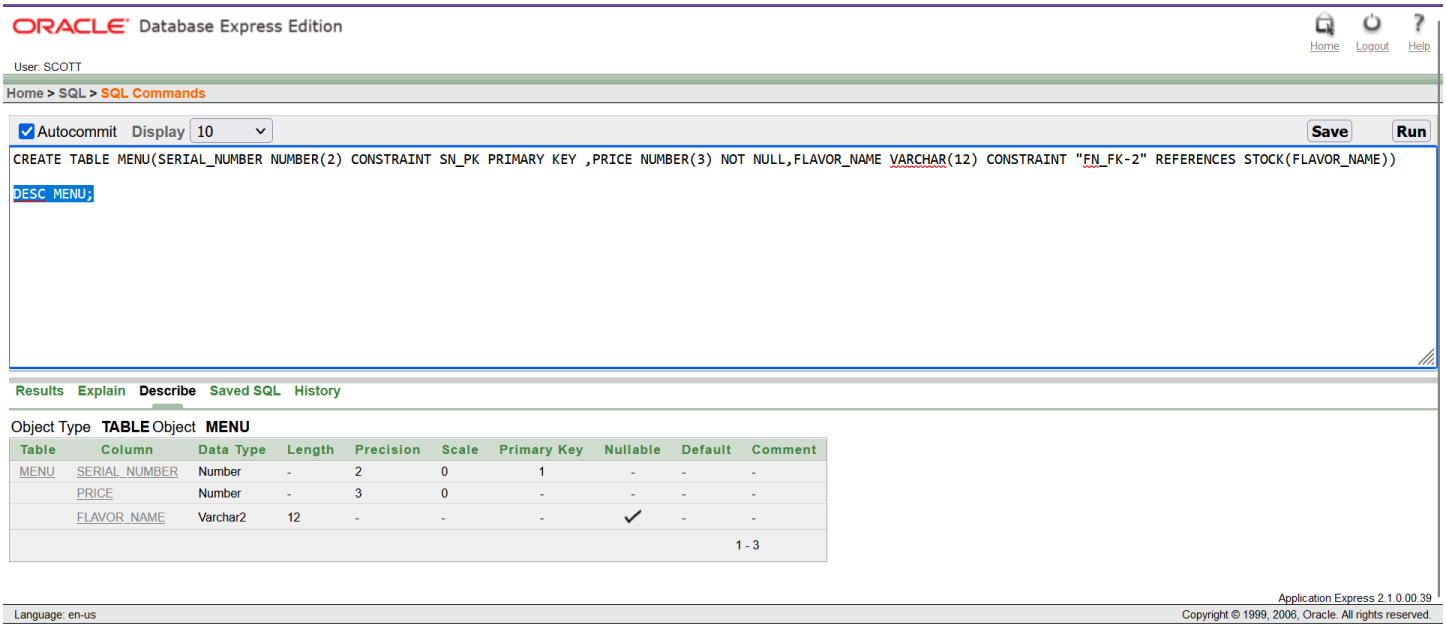
11. CREATE TABLE MEMBERBROWS (MEMBER_ID NUMBER(5) CONSTRAINT "MID_PK-MB" PRIMARY KEY, CUSTOMER_NAME VARCHAR(25) NOT NULL, CUSTOMER_NUMBER VARCHAR(11) DEFAULT 0, SERIAL_NUMBER NUMBER(2) CONSTRAINT "SN_FK-M" REFERENCES MENU(SERIAL_NUMBER))



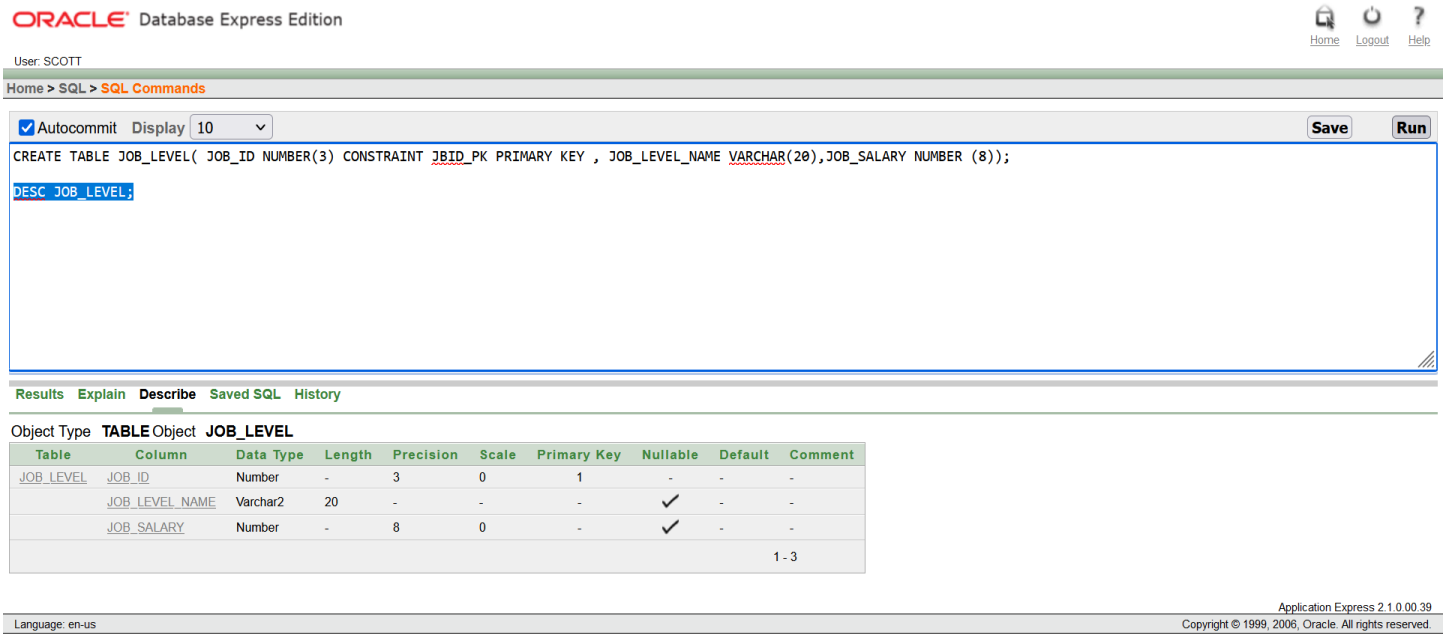
12. CREATE TABLE SERVICE(EM_ID NUMBER(2) CONSTRAINT EMID_PK PRIMARY KEY, EMPLOYEE_ID VARCHAR(10) CONSTRAINT "EID_FK-2" REFERENCES EMPLOYEE(EMPLOYEE_ID), MEMBER_ID NUMBER(5) CONSTRAINT "MID_FK-2" REFERENCES MEMBER(MEMBER_ID))



13. CREATE TABLE MENU(SERIAL_NUMBER NUMBER(2) CONSTRAINT SN_PK PRIMARY KEY ,PRICE NUMBER(3) NOT NULL,FLAVOR_NAME VARCHAR(12) CONSTRAINT "FN_FK-2" REFERENCES STOCK(FLAVOR_NAME))



14. CREATE TABLE JOB_LEVEL(JOB_ID NUMBER(3) CONSTRAINT JBID_PK PRIMARY KEY , JOB_LEVEL_NAME VARCHAR(20),JOB_SALARY NUMBER (8));



Data Insertion :

1. Employee :

a) INSERT INTO EMPLOYEE (MANAGER_ID) VALUES('15-45816-4') WHERE EMPLOYEE_ID = "15-45816-4"

b) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE,JOB_ID,TREND_LICENSE) VALUES ('10-45801-1', 'MD.JEWEL RANA', 500, 8, '10-JAN-10',101, 81692410)
c) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE,MANAGER_ID, JOB_ID, TREND_LICENSE) VALUES ('10-45802-2', 'MD.BIJOY HOSSEN', 1500, 9, '9-FEB-10','10-45801-1',103, 81692410)
d) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE,MANAGER_ID, JOB_ID, TREND_LICENSE) VALUES ('10-45803-3', 'MST. SANJIDA RAHMAN', 800, 7, '10-MAR-10','10-45801-1',107, 81692410)
e) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE,MANAGER_ID, JOB_ID, TREND_LICENSE) VALUES ('11-45804-4', 'MD.RONI AHAMED', 550, 8, '12-APR-11','11-45805-5',102, 81692411)
f) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE, JOB_ID, TREND_LICENSE) VALUES ('11-45805-5', 'MD.MEHADI ', 1600, 8, '16-MAY-11',101, 81692411)
g) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE,MANAGER_ID, JOB_ID, TREND_LICENSE) VALUES ('11-45806-6', 'NUR TOMAL', 800, 8, '24-JUN-11','11-45805-5', 110,81692411)
h) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE,MANAGER_ID, JOB_ID, TREND_LICENSE) VALUES ('12-45807-7', 'TOMAL CHOWDHURY', 400, 8, '01-JUL-12','12-45809-9', 105, 81692412)
i) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE,MANAGER_ID, JOB_ID, TREND_LICENSE) VALUES ('12-25808-8', 'SHANTO BISHAWS', 2500, 9, '10-AUG-12','12-45809-9',104, 81692412)
j) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE, JOB_ID, TREND_LICENSE) VALUES ('12-45809-9', 'EBRAHIM OMI', 500, 8, '10-SEP-12',101, 81692412)
k) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE, JOB_ID, TREND_LICENSE) VALUES ('13-5810-10', 'SHOGH ', 480, 8, '20-OCT-13', 101,81692413)
l) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE,MANAGER_ID, JOB_ID, TREND_LICENSE) VALUES ('13-5811-11', 'AFSANA ONU', 1640,6, '16-NOV-13','13-5810-10',109, 81692413)
m) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE,MANAGER_ID, JOB_ID, TREND_LICENSE) VALUES ('13-5812-12', 'REZWANUL KABIR', 600, 8, '14-DEC-13','13-5810-10',105, 81692413)
n) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE,MANAGER_ID, JOB_ID, TREND_LICENSE) VALUES ('14-45813-1', 'MEHEDI HASAN MAMUN', 700, 8, '10-JAN-14','14-45814-2',102, 81692414)
o) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE, JOB_ID, TREND_LICENSE) VALUES ('14-45814-2', 'ASHIKUL ISLAM FAISAL', 2467, 7, '10-FEB-14',101, 81692414)
p) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE,MANAGER_ID, JOB_ID, TREND_LICENSE) VALUES ('14-45815-3', 'YEASIN NEWAZ', 1358, 8, '5-MAR-14','14-45814-2', 107, 81692414)
q) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE, JOB_ID, TREND_LICENSE) VALUES ('15-45816-4', 'MUSFIKUR RAHMAN MUIN', 4577, 8, '3-APR-15',101, 81692415)

r) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE,MANAGER_ID, JOB_ID, TREND_LICENSE) VALUES ('15-55817-5', 'SAIMUZZAMAN SAKIB', 453, 9, '24-MAY-15','15-45816-4',110, 81692415)

s) INSERT INTO EMPLOYEE(EMPLOYEE_ID, EMPLOYEE_NAME, EMPLOYEE_SALARY, WORKING_PERIOD, JOIN_DATE,MANAGER_ID, JOB_ID, TREND_LICENSE) VALUES ('15-45818-6', 'NAFIUN OVI', 350, 10, '26-JUN-15', '15-45816-4', 102,81692415)

```
alter table member add(payed_by number(5))
```

Results Explain Describe Saved SQL History

EMPLOYEE_ID	EMPLOYEE_NAME	EMPLOYEE_SALARY	WORKING_PERIOD	JOIN_DATE	JOB_ID	TREND_LICENSE	MANAGER_ID
10-45803-3	Mst. Sanjida Rahman	800	7	10-MAR-10	107	81692410	10-45801-1
11-45804-4	MD.Roni Ahamed	550	8	12-APR-11	102	81692411	11-45805-5
11-45805-5	MD.Mehadi	1600	8	16-MAY-11	101	81692411	-
11-45806-6	Nur Tomal	800	8	24-JUN-11	110	81692411	11-45805-5
12-45807-7	Tomal Chowdhury	400	8	01-JUL-12	105	81692412	12-45809-9
12-25808-8	Shanto Bishaws	2500	9	10-AUG-12	104	81692412	12-45809-9
12-45809-9	Ebrahim Omi	500	8	10-SEP-12	101	81692412	-
13-5810-10	Shogh	480	8	20-OCT-13	101	81692413	-
13-5811-11	Afsana Onu	1640	6	16-NOV-13	109	81692413	13-5810-10
10-45801-1	MD.Jewel Rana	500	8	10-JAN-10	101	81692410	-
10-45802-2	MD.Bijoy Hossen	1500	9	09-FEB-10	103	81692410	10-45801-1
13-5812-12	Rezwanul Kabir	600	8	14-DEC-13	105	81692413	13-5810-10
14-45813-1	Mehedi Hasan Mamun	700	8	10-JAN-14	102	81692414	14-45814-2
14-45814-2	Ashikul Islam Faisal	2467	7	10-FEB-14	101	81692414	-
14-45815-3	Yeasin Newaz	1358	8	05-MAR-14	107	81692414	14-45814-2
15-45816-4	Musfikur Rahman Muin	4577	8	03-APR-15	101	81692415	-
15-55817-5	Saimuzzaman Sakib	453	9	24-MAY-15	110	81692415	15-45816-4
15-45818-6	Nafiun Ovi	350	10	26-JUN-15	102	81692415	15-45816-4

18 rows returned in 0.02 seconds CSV Export

2. Shop :

a) INSERT INTO SHOP (TREND_LICENSE,SHOP_NAME,HOT_NUMBER,LOCATION) VALUES (81692410,'THE SWEET COURSE',09612216656,'BONANNI')

b) INSERT INTO SHOP (TREND_LICENSE,SHOP_NAME,HOT_NUMBER,LOCATION) VALUES (81692411,'SCOOPS OF DELIGHT',09612216666,'GULSHAN')

c) INSERT INTO SHOP (TREND_LICENSE,SHOP_NAME,HOT_NUMBER,LOCATION) VALUES (81692412,'SUGAR RUSH CONES',09612216676,'DHANMONDI')

d) INSERT INTO SHOP (TREND_LICENSE,SHOP_NAME,HOT_NUMBER,LOCATION) VALUES (81692413,'ICY VANILLA MOON',09612216686,'MIRPUR')

e) INSERT INTO SHOP (TREND_LICENSE,SHOP_NAME,HOT_NUMBER,LOCATION) VALUES (81692414,'FANTASY SCOOP',09612216696,'UTTORA')

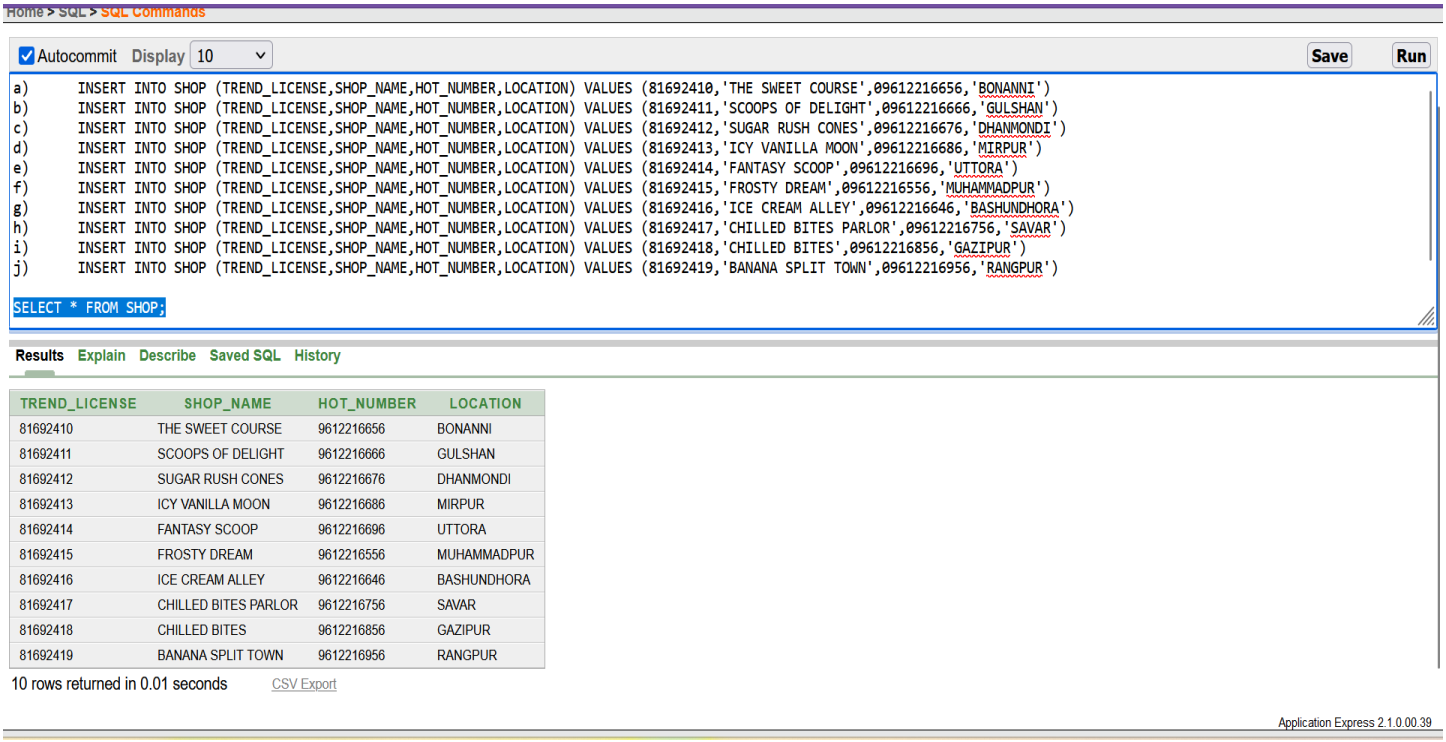
f) INSERT INTO SHOP (TREND_LICENSE,SHOP_NAME,HOT_NUMBER,LOCATION) VALUES (81692415,'FROSTY DREAM',09612216556,'MUHAMMADPUR')

g) INSERT INTO SHOP (TREND_LICENSE,SHOP_NAME,HOT_NUMBER,LOCATION) VALUES (81692416,'ICE CREAM ALLEY',09612216646,'BASHUNDHORA')

h) INSERT INTO SHOP (TREND_LICENSE,SHOP_NAME,HOT_NUMBER,LOCATION) VALUES (81692417,'CHILLED BITES PARLOR',09612216756,'SAVAR')

i) INSERT INTO SHOP (TREND_LICENSE,SHOP_NAME,HOT_NUMBER,LOCATION) VALUES (81692418,'CHILLED BITES',09612216856,'GAZIPUR')

j) INSERT INTO SHOP (TREND_LICENSE,SHOP_NAME,HOT_NUMBER,LOCATION) VALUES (81692419,'BANANA SPLIT TOWN',09612216956,'RANGPUR')



3. Owner :

a) INSERT INTO OWNER(OWNER_ID ,OWNER_NAME , CONTACT_NUMBER , TREND_LICENSE) VALUES (1001, 'TAUHID', 12345611, 81692410)

b) INSERT INTO OWNER(OWNER_ID ,OWNER_NAME , CONTACT_NUMBER , TREND_LICENSE) VALUES (1002, 'HASAN', 12345612, 81692411)

c) INSERT INTO OWNER(OWNER_ID ,OWNER_NAME , CONTACT_NUMBER , TREND_LICENSE) VALUES (1003, 'MAAHI', 12345613, 81692412)

d) INSERT INTO OWNER(OWNER_ID ,OWNER_NAME , CONTACT_NUMBER , TREND_LICENSE) VALUES (1004, 'JHOTHIR', 12345614, 81692413)

e) INSERT INTO OWNER(OWNER_ID ,OWNER_NAME , CONTACT_NUMBER , TREND_LICENSE) VALUES (1005, 'SARKER', 12345615, 81692414)

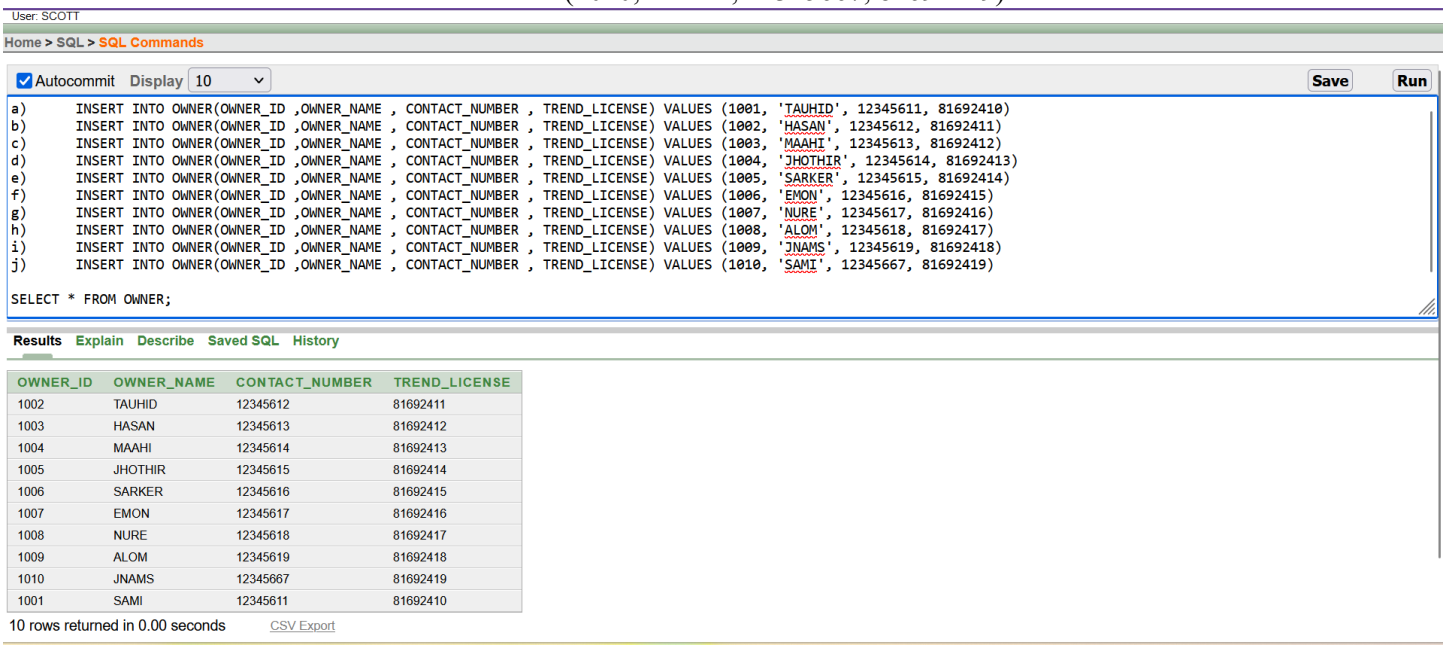
f) INSERT INTO OWNER(OWNER_ID ,OWNER_NAME , CONTACT_NUMBER , TREND_LICENSE) VALUES (1006, 'EMON', 12345616, 81692415)

g) INSERT INTO OWNER(OWNER_ID ,OWNER_NAME , CONTACT_NUMBER , TREND_LICENSE) VALUES (1007, 'NURE', 12345617, 81692416)

h) INSERT INTO OWNER(OWNER_ID ,OWNER_NAME , CONTACT_NUMBER , TREND_LICENSE) VALUES (1008, 'ALOM', 12345618, 81692417)

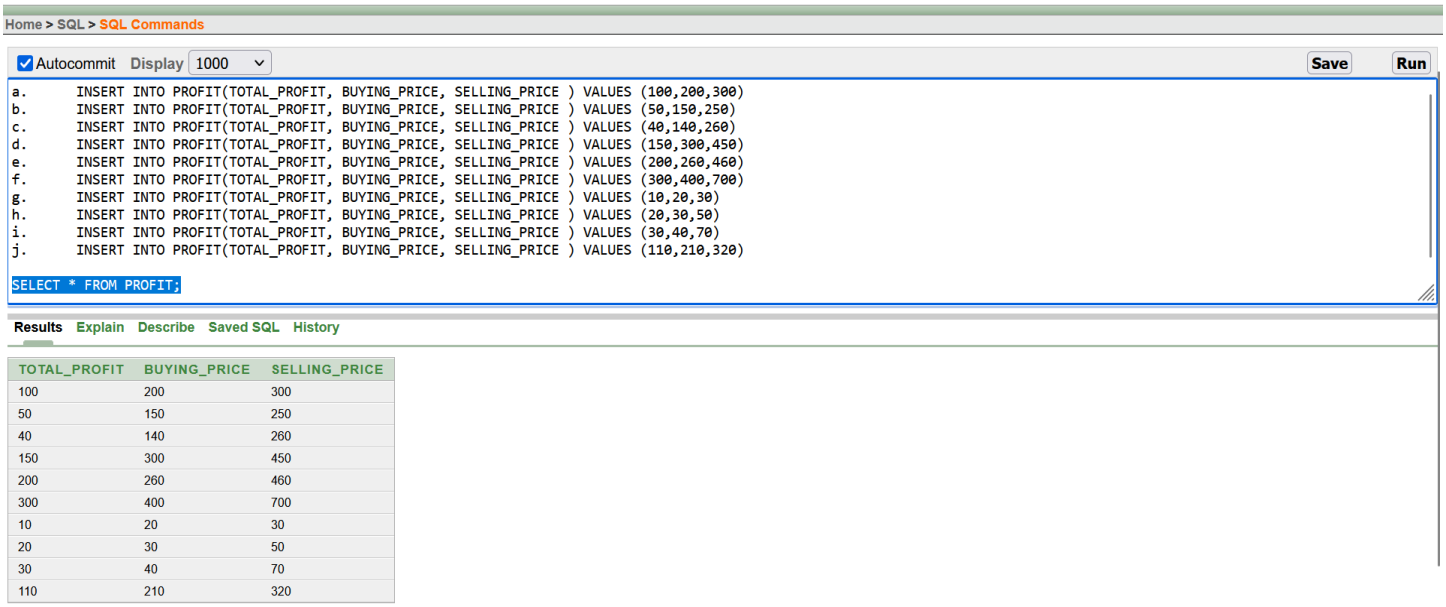
i) INSERT INTO OWNER(OWNER_ID ,OWNER_NAME , CONTACT_NUMBER , TREND_LICENSE) VALUES (1009, 'JNAMS', 12345619, 81692418)

j) INSERT INTO OWNER(OWNER_ID ,OWNER_NAME , CONTACT_NUMBER , TREND_LICENSE) VALUES (1010, 'SAMI', 12345667, 81692419)



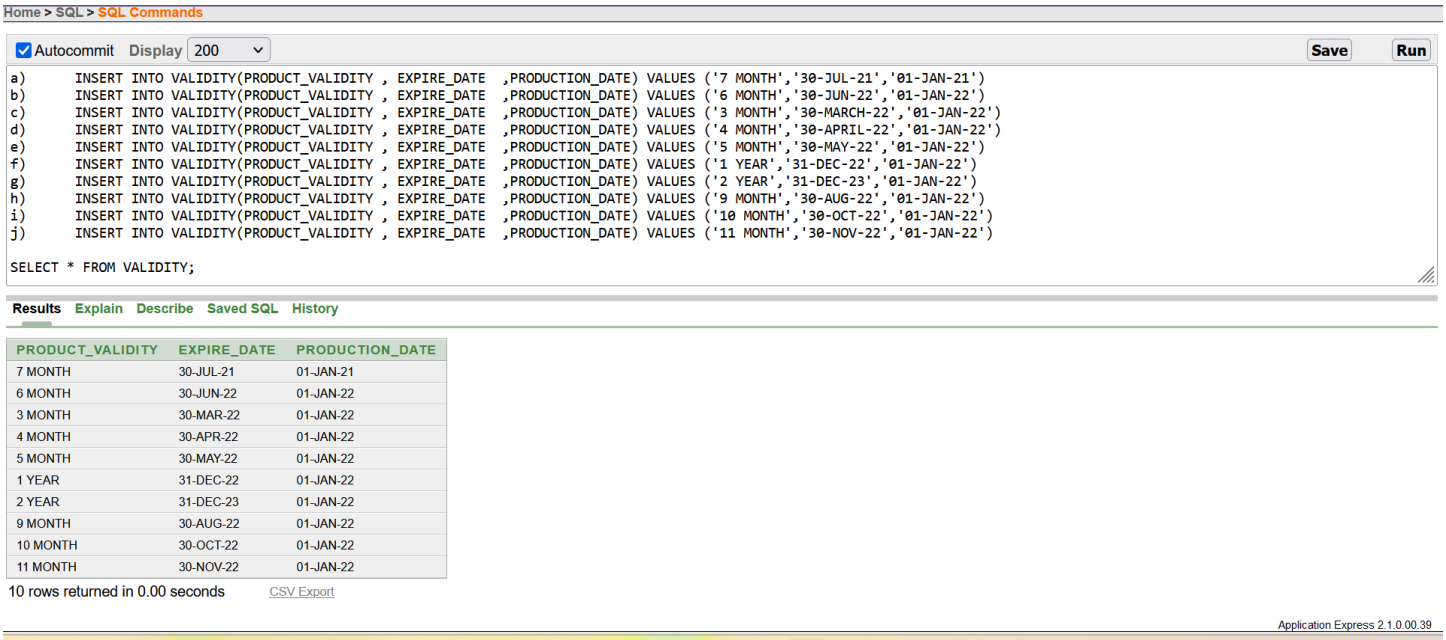
4. Profit :

a. INSERT INTO PROFIT(TOTAL_PROFIT, BUYING_PRICE, SELLING_PRICE) VALUES (100,200,300)
b. INSERT INTO PROFIT(TOTAL_PROFIT, BUYING_PRICE, SELLING_PRICE) VALUES (50,150,250)
c. INSERT INTO PROFIT(TOTAL_PROFIT, BUYING_PRICE, SELLING_PRICE) VALUES (40,140,260)
d. INSERT INTO PROFIT(TOTAL_PROFIT, BUYING_PRICE, SELLING_PRICE) VALUES (150,300,450)
e. INSERT INTO PROFIT(TOTAL_PROFIT, BUYING_PRICE, SELLING_PRICE) VALUES (200,260,460)
f. INSERT INTO PROFIT(TOTAL_PROFIT, BUYING_PRICE, SELLING_PRICE) VALUES (300,400,700)
g. INSERT INTO PROFIT(TOTAL_PROFIT, BUYING_PRICE, SELLING_PRICE) VALUES (10,20,30)
h. INSERT INTO PROFIT(TOTAL_PROFIT, BUYING_PRICE, SELLING_PRICE) VALUES (20,30,50)
i. INSERT INTO PROFIT(TOTAL_PROFIT, BUYING_PRICE, SELLING_PRICE) VALUES (30,40,70)
j. INSERT INTO PROFIT(TOTAL_PROFIT, BUYING_PRICE, SELLING_PRICE) VALUES (110,210,320)



5. Validity :

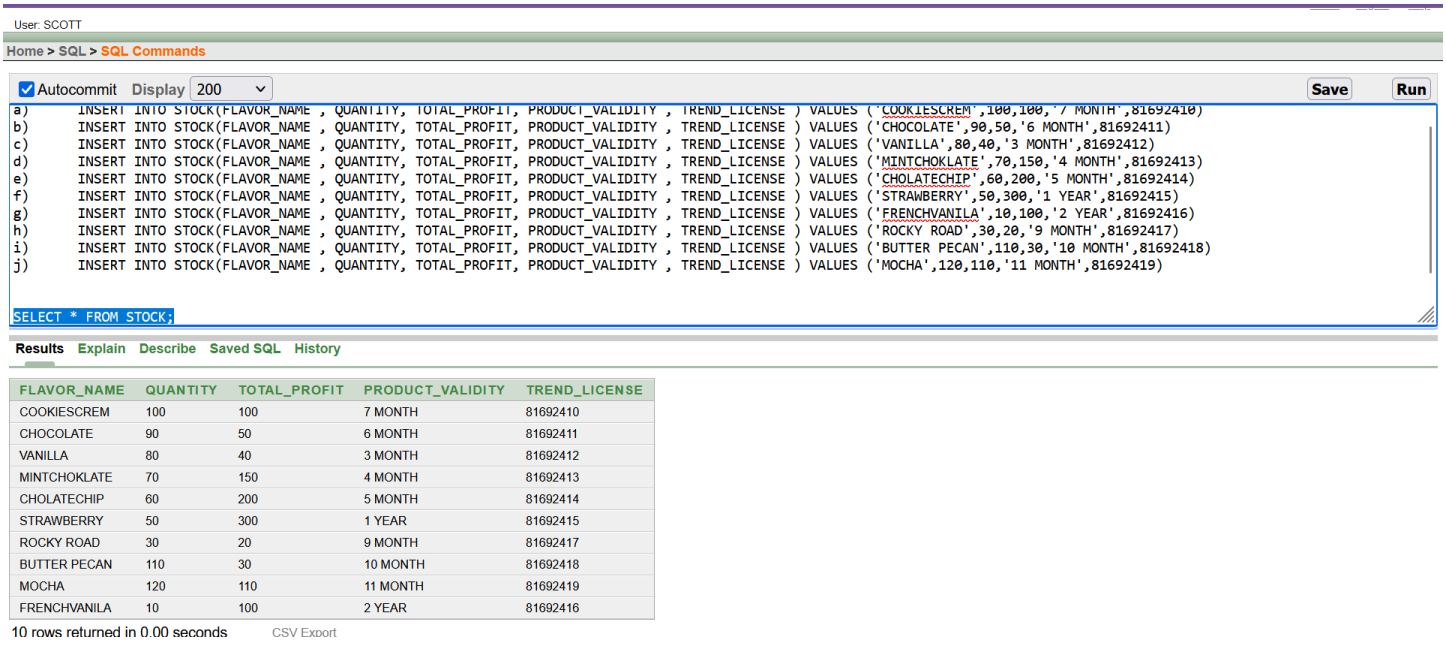
a) INSERT INTO VALIDITY(PRODUCT_VALIDITY , EXPIRE_DATE ,PRODUCTION_DATE) VALUES ('7 MONTH','30-JULY-21','1-JAN-21')
b) INSERT INTO VALIDITY(PRODUCT_VALIDITY , EXPIRE_DATE ,PRODUCTION_DATE) VALUES ('6 MONTH','30-JUN-22','1-JAN-22')
c) INSERT INTO VALIDITY(PRODUCT_VALIDITY , EXPIRE_DATE ,PRODUCTION_DATE) VALUES ('3 MONTH','30-MARCH-22','1-JAN-22')
d) INSERT INTO VALIDITY(PRODUCT_VALIDITY , EXPIRE_DATE ,PRODUCTION_DATE) VALUES ('4 MONTH','30-APRIL-22','1-JAN-22')
e) INSERT INTO VALIDITY(PRODUCT_VALIDITY , EXPIRE_DATE ,PRODUCTION_DATE) VALUES ('5 MONTH','30-MAY-22','1-JAN-22')
f) INSERT INTO VALIDITY(PRODUCT_VALIDITY , EXPIRE_DATE ,PRODUCTION_DATE) VALUES ('1 YEAR','31-DEC-22','1-JAN-22')
g) INSERT INTO VALIDITY(PRODUCT_VALIDITY , EXPIRE_DATE ,PRODUCTION_DATE) VALUES ('2 YEAR','31-DEC-23','1-JAN-22')
h) INSERT INTO VALIDITY(PRODUCT_VALIDITY , EXPIRE_DATE ,PRODUCTION_DATE) VALUES ('9 MONTH','30-AUG-22','1-JAN-22')
i) INSERT INTO VALIDITY(PRODUCT_VALIDITY , EXPIRE_DATE ,PRODUCTION_DATE) VALUES ('10 MONTH','30-OCT-22','1-JAN-22')
j) INSERT INTO VALIDITY(PRODUCT_VALIDITY , EXPIRE_DATE ,PRODUCTION_DATE) VALUES ('11 MONTH','30-NOV-22','1-JAN-22')



6. Stock :

a) INSERT INTO STOCK(FLAVOR_NAME , QUANTITY, TOTAL_PROFIT, PRODUCT_VALIDITY , TREND_LICENSE) VALUES ('COOKIESCREM',100,100,'7 MONTH',81692410)
b) INSERT INTO STOCK(FLAVOR_NAME , QUANTITY, TOTAL_PROFIT, PRODUCT_VALIDITY , TREND_LICENSE) VALUES ('CHOCOLATE',90,50,'6 MONTH',81692411)

c) INSERT INTO STOCK(FLAVOR_NAME , QUANTITY, TOTAL_PROFIT, PRODUCT_VALIDITY , TREND_LICENSE) VALUES ('VANILLA',80,40,'3 MONTH',81692412)
d) INSERT INTO STOCK(FLAVOR_NAME , QUANTITY, TOTAL_PROFIT, PRODUCT_VALIDITY , TREND_LICENSE) VALUES ('MINTCHOKLATE',70,150,'4 MONTH',81692413)
e) INSERT INTO STOCK(FLAVOR_NAME , QUANTITY, TOTAL_PROFIT, PRODUCT_VALIDITY , TREND_LICENSE) VALUES ('CHOLATECHIP',60,200,'5 MONTH',81692414)
f) INSERT INTO STOCK(FLAVOR_NAME , QUANTITY, TOTAL_PROFIT, PRODUCT_VALIDITY , TREND_LICENSE) VALUES ('STRAWBERRY',50,300,'1 YEAR',81692415)
g) INSERT INTO STOCK(FLAVOR_NAME , QUANTITY, TOTAL_PROFIT, PRODUCT_VALIDITY , TREND_LICENSE) VALUES ('FRENCHVANILA',10,100,'2 YEAR',81692416)
h) INSERT INTO STOCK(FLAVOR_NAME , QUANTITY, TOTAL_PROFIT, PRODUCT_VALIDITY , TREND_LICENSE) VALUES ('ROCKY ROAD',30,20,'9 MONTH',81692417)
i) INSERT INTO STOCK(FLAVOR_NAME , QUANTITY, TOTAL_PROFIT, PRODUCT_VALIDITY , TREND_LICENSE) VALUES ('BUTTER PECAN',110,30,'10 MONTH',81692418)
j) INSERT INTO STOCK(FLAVOR_NAME , QUANTITY, TOTAL_PROFIT, PRODUCT_VALIDITY , TREND_LICENSE) VALUES ('MOCHA',120,110,'11 MONTH',81692419)



7. Orders :

a) INSERT INTO ORDERS(OE_ID ,OWNER_ID , EMPLOYEE_ID) VALUES (101,1000,'10-45801-1')
b) INSERT INTO ORDERS(OE_ID ,OWNER_ID , EMPLOYEE_ID) VALUES (102,1001,'11-45804-4')
c) INSERT INTO ORDERS(OE_ID ,OWNER_ID , EMPLOYEE_ID) VALUES (103,1002,'12-45807-7')
d) INSERT INTO ORDERS(OE_ID ,OWNER_ID , EMPLOYEE_ID) VALUES (104,1003,'13-5810-10')
e) INSERT INTO ORDERS(OE_ID ,OWNER_ID , EMPLOYEE_ID) VALUES (105,1004,'14-45813-1')
f) INSERT INTO ORDERS(OE_ID ,OWNER_ID , EMPLOYEE_ID) VALUES (106,1005,'15-45816-4')
g) INSERT INTO ORDERS(OE_ID ,OWNER_ID , EMPLOYEE_ID) VALUES (107,1006,'11-45806-6')
h) INSERT INTO ORDERS(OE_ID ,OWNER_ID , EMPLOYEE_ID) VALUES (108,1007,'12-45809-9')
i) INSERT INTO ORDERS(OE_ID ,OWNER_ID , EMPLOYEE_ID) VALUES (109,1008,'10-45802-2')
j) INSERT INTO ORDERS(OE_ID ,OWNER_ID , EMPLOYEE_ID) VALUES (110,1009,'10-45803-3')

```
select * from orders
```

Results Explain Describe Saved SQL History

OE_ID	OWNER_ID	EMPLOYEE_ID
101	1001	10-45801-1
102	1002	10-45802-2
103	1003	10-45803-3
104	1003	10-45803-3
105	1004	11-45805-5
106	1005	11-45806-6
107	1007	12-45807-7
108	1008	12-25808-8
109	1009	12-45809-9
110	1009	13-5810-10

10 rows returned in 0.00 seconds CSV Export

8. EmpCheck :

a) INSERT INTO EMPCHECK(ES_ID,EMPLOYEE_ID ,FLAVOR_NAME) VALUES (20,'10-45801-1','COOKIESCREM')
b) INSERT INTO EMPCHECK(ES_ID,EMPLOYEE_ID ,FLAVOR_NAME) VALUES (21,'11-45804-4','CHOCOLATE')
c) INSERT INTO EMPCHECK(ES_ID,EMPLOYEE_ID ,FLAVOR_NAME) VALUES (22,'12-45807-7','VANILLA')
d) INSERT INTO EMPCHECK(ES_ID,EMPLOYEE_ID ,FLAVOR_NAME) VALUES (23,'13-5810-10','MINTCHOKLATE')
e) INSERT INTO EMPCHECK(ES_ID,EMPLOYEE_ID ,FLAVOR_NAME) VALUES (24,'14-45813-1','CHOLATECHIP')
f) INSERT INTO EMPCHECK(ES_ID,EMPLOYEE_ID ,FLAVOR_NAME) VALUES (25,'15-45816-4','STRAWBERRY')
g) INSERT INTO EMPCHECK(ES_ID,EMPLOYEE_ID ,FLAVOR_NAME) VALUES (26,'11-45806-6','FRENCHVANILA')
h) INSERT INTO EMPCHECK(ES_ID,EMPLOYEE_ID ,FLAVOR_NAME) VALUES (27,'12-45809-9','ROCKY ROAD')
i) INSERT INTO EMPCHECK(ES_ID,EMPLOYEE_ID ,FLAVOR_NAME) VALUES (28,'10-45802-2','BUTTER PECAN')
j) INSERT INTO EMPCHECK(ES_ID,EMPLOYEE_ID ,FLAVOR_NAME) VALUES (29,'10-45803-3','MOCHA')

```
select * from EmpCheck
```

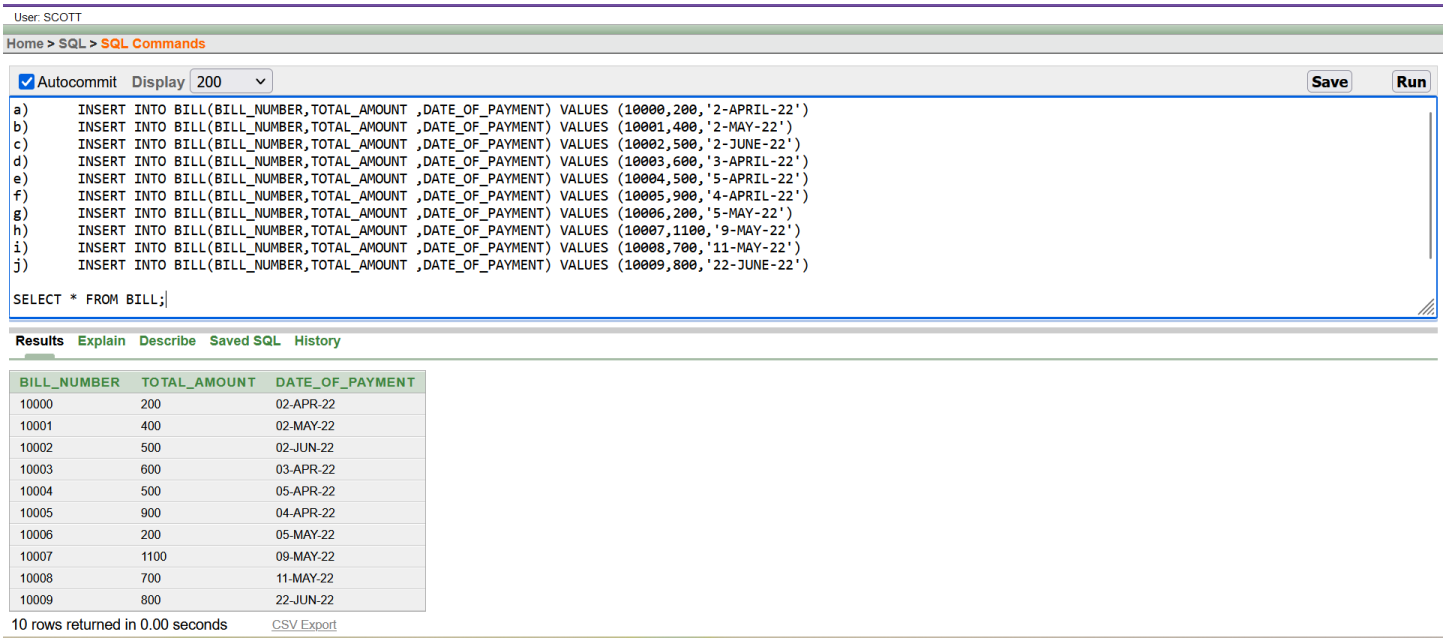
Results Explain Describe Saved SQL History

ES_ID	EMPLOYEE_ID	FLAVOR_NAME
20	10-45801-1	Cookiescrem
21	11-45804-4	Chocolate
22	12-45807-7	Vanilla
23	13-5810-10	MintChoklate
24	14-45813-1	CholateChip
25	15-45816-4	Strawberry
26	11-45806-6	FrenchVanila
27	12-45809-9	Rocky Road
28	10-45802-2	Butter Pecan
29	10-45803-3	Mocha

10 rows returned in 0.00 seconds CSV Export

9. Bill :

a) INSERT INTO BILL(BILL_NUMBER,TOTAL_AMOUNT ,DATE_OF_PAYMENT) VALUES (10000,200,'2-APRIL-22')
b) INSERT INTO BILL(BILL_NUMBER,TOTAL_AMOUNT ,DATE_OF_PAYMENT) VALUES (10001,400,'2-MAY-22')
c) INSERT INTO BILL(BILL_NUMBER,TOTAL_AMOUNT ,DATE_OF_PAYMENT) VALUES (10002,500,'2-JUNE-22')
d) INSERT INTO BILL(BILL_NUMBER,TOTAL_AMOUNT ,DATE_OF_PAYMENT) VALUES (10003,600,'3-APRIL-22')
e) INSERT INTO BILL(BILL_NUMBER,TOTAL_AMOUNT ,DATE_OF_PAYMENT) VALUES (10004,500,'5-APRIL-22')
f) INSERT INTO BILL(BILL_NUMBER,TOTAL_AMOUNT ,DATE_OF_PAYMENT) VALUES (10005,900,'4-APRIL-22')
g) INSERT INTO BILL(BILL_NUMBER,TOTAL_AMOUNT ,DATE_OF_PAYMENT) VALUES (10006,200,'5-MAY-22')
h) INSERT INTO BILL(BILL_NUMBER,TOTAL_AMOUNT ,DATE_OF_PAYMENT) VALUES (10007,1100,'9-MAY-22')
i) INSERT INTO BILL(BILL_NUMBER,TOTAL_AMOUNT ,DATE_OF_PAYMENT) VALUES (10008,700,'11-MAY-22')
j) INSERT INTO BILL(BILL_NUMBER,TOTAL_AMOUNT ,DATE_OF_PAYMENT) VALUES (10009,800,'22-JUNE-22')



10 . Member :

a) INSERT INTO MEMBER(MEMBER_ID,CUSTOMER_NAME,CUSTOMER_NUMBER,BILL_NUMBER,PAYED_BY,DOB) VALUES (101,'NURA ALAM',01790336868,10000,101, 23-JAN-99)

b) INSERT INTO MEMBER(MEMBER_ID,CUSTOMER_NAME,CUSTOMER_NUMBER,BILL_NUMBER,PAYED_BY, DOB) VALUES (102,'AIFF HOSSAIN',01790336868,10008,106, 03-JUL-01)

c) INSERT INTO MEMBER(MEMBER_ID,CUSTOMER_NAME,CUSTOMER_NUMBER,BILL_NUMBER,PAYED_BY, DOB) VALUES (103,'MAHENDRA BAHUBALI',01790336868,10009,105, 12-FEB-02)

d) INSERT INTO MEMBER(MEMBER_ID,CUSTOMER_NAME,CUSTOMER_NUMBER,BILL_NUMBER,PAYED_BY, DOB) VALUES (104,'KATTAPA CHOWDHURY',01790336868,10001,109, 01-DEC-71)

e) INSERT INTO MEMBER(MEMBER_ID,CUSTOMER_NAME,CUSTOMER_NUMBER,BILL_NUMBER,PAYED_BY) VALUES (105,'TAMIM IQBAL',01790336868,10002,101)

f) INSERT INTO MEMBER(MEMBER_ID,CUSTOMER_NAME,CUSTOMER_NUMBER,BILL_NUMBER,PAYED_BY, DOB) VALUES (106,'SHAKIB AL HASAN',01790336868,10003,100, 25-SEP-89)

g) INSERT INTO MEMBER(MEMBER_ID,CUSTOMER_NAME,CUSTOMER_NUMBER,BILL_NUMBER,PAYED_BY, DOB) VALUES (107,'ANAMUL HAQUE BIJOY',01790336868,10004,104, 13-NOV-61)

h) INSERT INTO MEMBER(MEMBER_ID,CUSTOMER_NAME,CUSTOMER_NUMBER,BILL_NUMBER,PAYED_BY, DOB) VALUES (108,'NASUM AHAMD',01790336868,10005,108, 07-OCT-09)

i) INSERT INTO MEMBER(MEMBER_ID,CUSTOMER_NAME,CUSTOMER_NUMBER,BILL_NUMBER,PAYED_BY) VALUES (109,'LITON DAS',01790336868,10006,109)

j) INSERT INTO MEMBER(MEMBER_ID,CUSTOMER_NAME,CUSTOMER_NUMBER,BILL_NUMBER,PAYED_BY, DOB) VALUES (100,'LORD SHANTO',01790336868,10007,101, 09-JAN-99)

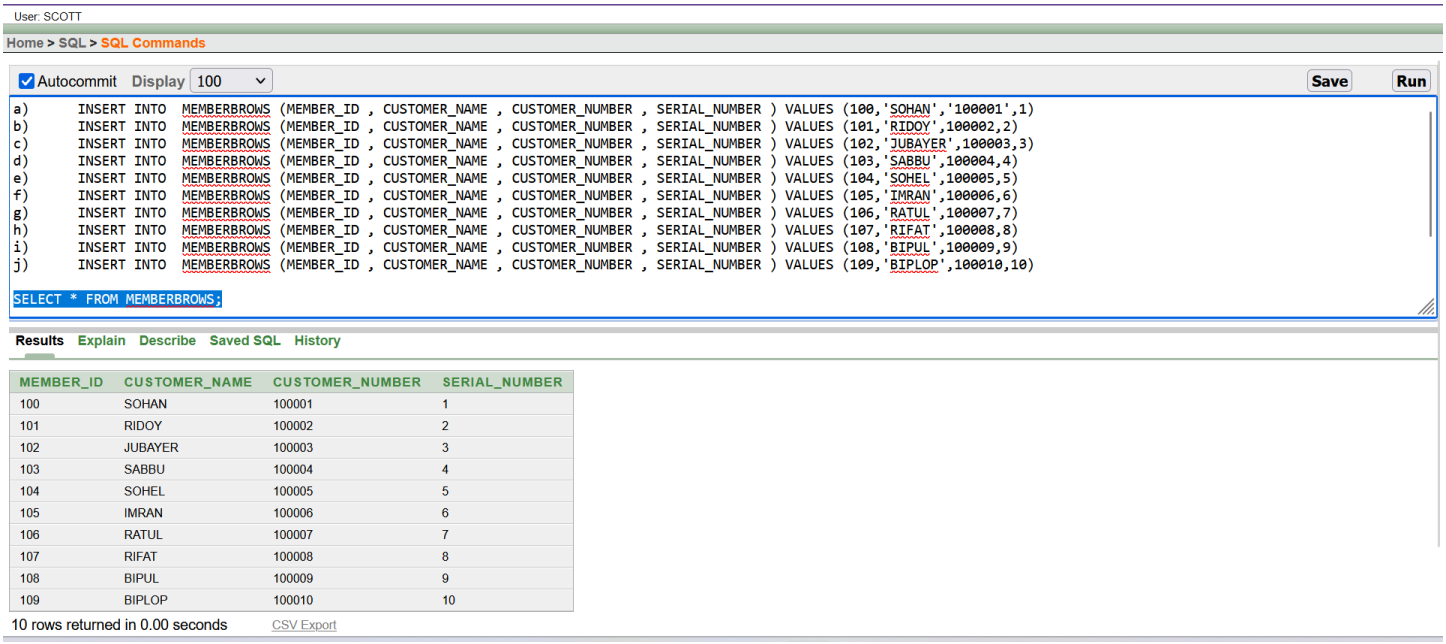
```
select * from member
```

Results Explain Describe Saved SQL History

MEMBER_ID	CUSTOMER_NAME	CUSTOMER_NUMBER	BILL_NUMBER	PAYED_BY	DOB
100	Lord Shanto	1790336868	10007	101	23-JAN-99
101	Nura Alam	1790336868	10000	101	03-JUL-01
102	Aiff Hossain	1790336868	10008	106	12-FEB-02
103	Mahendra Bahubali	1790336868	10009	105	01-DEC-71
104	Kattapa Chowdhury	1790336868	10001	109	-
105	Tamim Iqbal	1790336868	10002	101	25-SEP-89
106	Shakib Al Hasan	1790336868	10003	100	13-NOV-61
107	Anamul Haque Bijoy	1790336868	10004	104	07-OCT-09
108	Nasum Ahamd	1790336868	10005	108	-
109	Liton Das	1790336868	10006	109	09-JAN-99

11. MemberBrows :

a) INSERT INTO MEMBERBROWS (MEMBER_ID , CUSTOMER_NAME , CUSTOMER_NUMBER , SERIAL_NUMBER) VALUES (100,'SOHAN','100001',1)
b) INSERT INTO MEMBERBROWS (MEMBER_ID , CUSTOMER_NAME , CUSTOMER_NUMBER , SERIAL_NUMBER) VALUES (101,'RIDOY',100002,2)
c) INSERT INTO MEMBERBROWS (MEMBER_ID , CUSTOMER_NAME , CUSTOMER_NUMBER , SERIAL_NUMBER) VALUES (102,'JUBAYER',100003,3)
d) INSERT INTO MEMBERBROWS (MEMBER_ID , CUSTOMER_NAME , CUSTOMER_NUMBER , SERIAL_NUMBER) VALUES (103,'SABBU',100004,4)
e) INSERT INTO MEMBERBROWS (MEMBER_ID , CUSTOMER_NAME , CUSTOMER_NUMBER , SERIAL_NUMBER) VALUES (104,'SOHEL',100005,5)
f) INSERT INTO MEMBERBROWS (MEMBER_ID , CUSTOMER_NAME , CUSTOMER_NUMBER , SERIAL_NUMBER) VALUES (105,'IMRAN',100006,6)
g) INSERT INTO MEMBERBROWS (MEMBER_ID , CUSTOMER_NAME , CUSTOMER_NUMBER , SERIAL_NUMBER) VALUES (106,'RATUL',100007,7)
h) INSERT INTO MEMBERBROWS (MEMBER_ID , CUSTOMER_NAME , CUSTOMER_NUMBER , SERIAL_NUMBER) VALUES (107,'RIFAT',100008,8)
i) INSERT INTO MEMBERBROWS (MEMBER_ID , CUSTOMER_NAME , CUSTOMER_NUMBER , SERIAL_NUMBER) VALUES (108,'BIPUL',100009,9)
j) INSERT INTO MEMBERBROWS (MEMBER_ID , CUSTOMER_NAME , CUSTOMER_NUMBER , SERIAL_NUMBER) VALUES (109,'BIPLOP',100010,10)



12. Service :

a) INSERT INTO SERVICE(EM_ID , EMPLOYEE_ID , MEMBER_ID) VALUES (30,'10-45801-1',100)
b) INSERT INTO SERVICE(EM_ID , EMPLOYEE_ID , MEMBER_ID) VALUES (31,'11-45804-4',101)
c) INSERT INTO SERVICE(EM_ID , EMPLOYEE_ID , MEMBER_ID) VALUES (32,'12-45807-7',102)
d) INSERT INTO SERVICE(EM_ID , EMPLOYEE_ID , MEMBER_ID) VALUES (33,'13-5810-10',103)
e) INSERT INTO SERVICE(EM_ID , EMPLOYEE_ID , MEMBER_ID) VALUES (34,'14-45813-1',104)
f) INSERT INTO SERVICE(EM_ID , EMPLOYEE_ID , MEMBER_ID) VALUES (35,'15-45816-4',105)
g) INSERT INTO SERVICE(EM_ID , EMPLOYEE_ID , MEMBER_ID) VALUES (36,'11-45806-6',106)
h) INSERT INTO SERVICE(EM_ID , EMPLOYEE_ID , MEMBER_ID) VALUES (37,'12-45809-9',107)
i) INSERT INTO SERVICE(EM_ID , EMPLOYEE_ID , MEMBER_ID) VALUES (38,'10-45802-2',108)
j) INSERT INTO SERVICE(EM_ID , EMPLOYEE_ID , MEMBER_ID) VALUES (39,'10-45803-3',109)

```
select * from Service
```

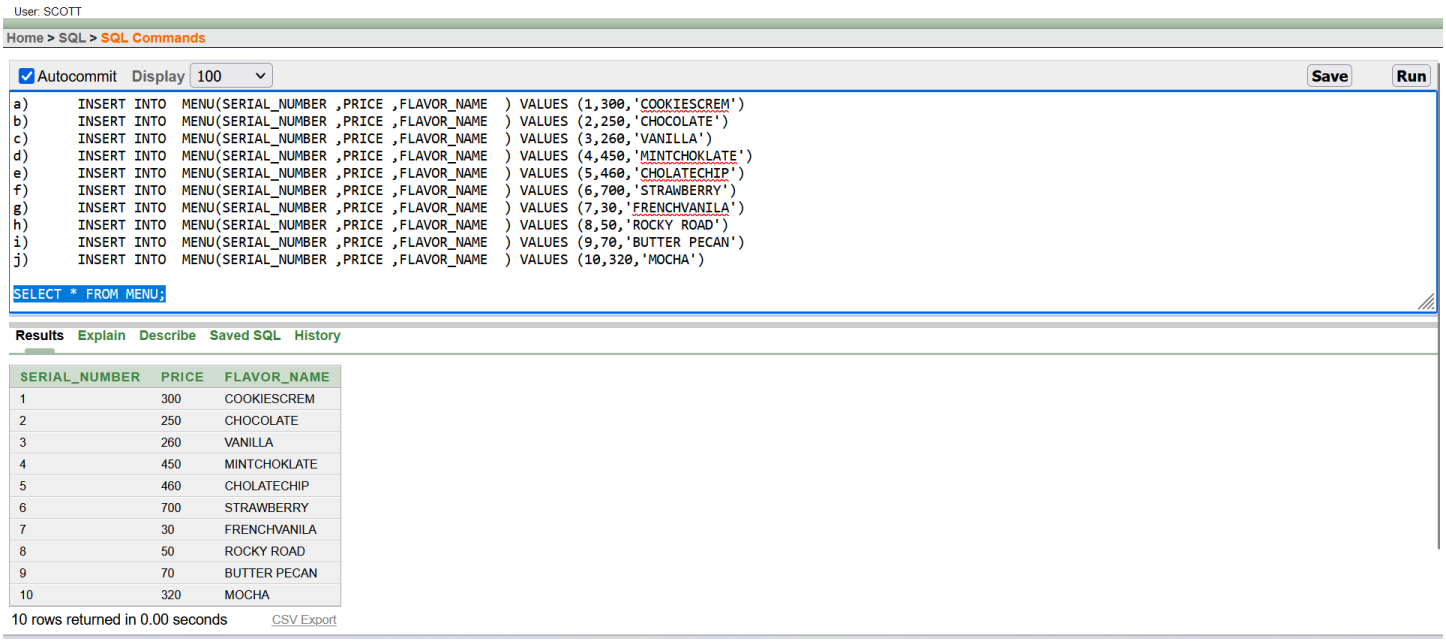
Results Explain Describe Saved SQL History

EM_ID	EMPLOYEE_ID	MEMBER_ID
30	10-45801-1	100
31	11-45804-4	101
32	12-45807-7	102
33	13-5810-10	103
34	14-45813-1	104
35	15-45816-4	105
36	11-45806-6	106
37	12-45809-9	107
38	10-45802-2	108
39	10-45803-3	109

10 rows returned in 0.00 seconds CSV Export

13. Menu :

a) INSERT INTO MENU(SERIAL_NUMBER ,PRICE ,FLAVOR_NAME) VALUES (1,300,'COOKIESCREM')
b) INSERT INTO MENU(SERIAL_NUMBER ,PRICE ,FLAVOR_NAME) VALUES (2,250,'CHOCOLATE')
c) INSERT INTO MENU(SERIAL_NUMBER ,PRICE ,FLAVOR_NAME) VALUES (3,260,'VANILLA')
d) INSERT INTO MENU(SERIAL_NUMBER ,PRICE ,FLAVOR_NAME) VALUES (4,450,'MINTCHOKLATE')
e) INSERT INTO MENU(SERIAL_NUMBER ,PRICE ,FLAVOR_NAME) VALUES (5,460,'CHOLATECHIP')
f) INSERT INTO MENU(SERIAL_NUMBER ,PRICE ,FLAVOR_NAME) VALUES (6,700,'STRAWBERRY')
g) INSERT INTO MENU(SERIAL_NUMBER ,PRICE ,FLAVOR_NAME) VALUES (7,30,'FRENCHVANILA')
h) INSERT INTO MENU(SERIAL_NUMBER ,PRICE ,FLAVOR_NAME) VALUES (8,50,'ROCKY ROAD')
i) INSERT INTO MENU(SERIAL_NUMBER ,PRICE ,FLAVOR_NAME) VALUES (9,70,'BUTTER PECAN')
j) INSERT INTO MENU(SERIAL_NUMBER ,PRICE ,FLAVOR_NAME) VALUES (10,320,'MOCHA')



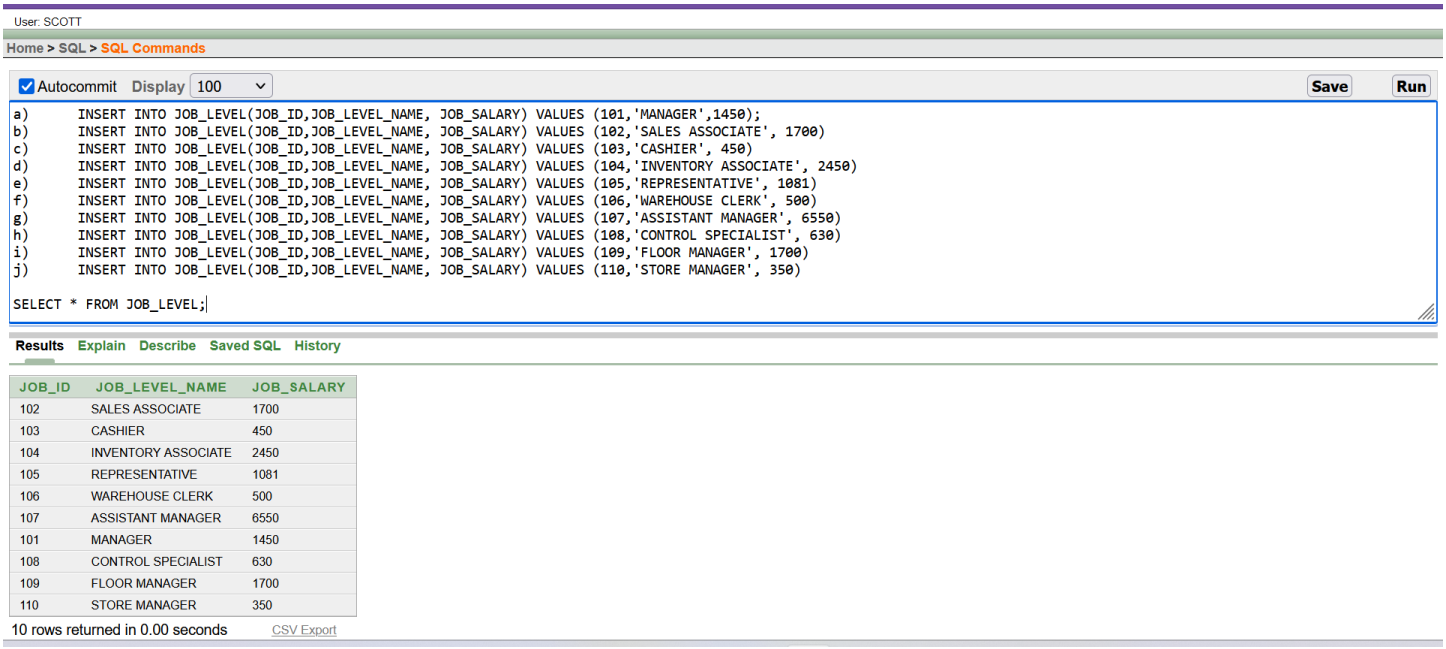
14. Job_level

a) INSERT INTO JOB_LEVEL(JOB_ID,JOB_LEVEL_NAME, JOB_SALARY) VALUES (101,'MANAGER',1450)
b) INSERT INTO JOB_LEVEL(JOB_ID,JOB_LEVEL_NAME, JOB_SALARY) VALUES (102,'SALES ASSOCIATE', 1700)
c) INSERT INTO JOB_LEVEL(JOB_ID,JOB_LEVEL_NAME, JOB_SALARY) VALUES (103,'CASHIER', 450)
d) INSERT INTO JOB_LEVEL(JOB_ID,JOB_LEVEL_NAME, JOB_SALARY) VALUES (104,'INVENTORY ASSOCIATE', 2450)
e) INSERT INTO JOB_LEVEL(JOB_ID,JOB_LEVEL_NAME, JOB_SALARY) VALUES (105,'REPRESENTATIVE', 1081)
f) INSERT INTO JOB_LEVEL(JOB_ID,JOB_LEVEL_NAME, JOB_SALARY) VALUES (106,'WAREHOUSE CLERK', 500)
g) INSERT INTO JOB_LEVEL(JOB_ID,JOB_LEVEL_NAME, JOB_SALARY) VALUES (107,'ASSISTANT MANAGER', 6550)

h) INSERT INTO JOB_LEVEL(JOB_ID,JOB_LEVEL_NAME, JOB_SALARY) VALUES (108,'CONTROL SPECIALIST', 630)

i) INSERT INTO JOB_LEVEL(JOB_ID,JOB_LEVEL_NAME, JOB_SALARY) VALUES (109,'FLOOR MANAGER', 1700)

j) INSERT INTO JOB_LEVEL(JOB_ID,JOB_LEVEL_NAME, JOB_SALARY) VALUES (110,'STORE MANAGER', 350)



QUERY WRITING :

1. JONNING

i) EQUIJOIN:

(1) Display employee_id, employee_name, salary , trend_licenseand and shop name for employee

Ans :

SELECT E.EMPLOYEE_ID, E.EMPLOYEE_NAME, E.EMPLOYEE_SALARY,S.SHOP_NAME,S.TREND_LICENSE FROM EMPLOYEE E,SHOP S WHERE E.TREND_LICENSE=S.TREND_LICENSE

```
select e.employee_id, e.employee_name, e.employee_salary,s.shop_name,s.trend_license from
employee e,shop s where e.trend_license=s.trend_license
```

Results Explain Describe Saved SQL History

EMPLOYEE_ID	EMPLOYEE_NAME	EMPLOYEE_SALARY	SHOP_NAME	TREND_LICENSE
13-5810-10	Shogh	480	Icy Vanilla Moon	81692413
13-5811-11	Afsana Onu	1640	Icy Vanilla Moon	81692413
13-5812-12	Rezwanul Kabir	600	Icy Vanilla Moon	81692413
14-45813-1	Mehedi Hasan Mamun	700	Fantasy Scoop	81692414
14-45814-2	Ashikul Islam Faisal	2467	Fantasy Scoop	81692414
14-45815-3	Yeasin Newaz	1358	Fantasy Scoop	81692414
15-45816-4	Musfikur Rahman Muin	4577	Frosty Dream	81692415
15-55817-5	Saimuzzaman Sakib	453	Frosty Dream	81692415
15-45818-6	Nafiun Ovi	350	Frosty Dream	81692415
10-45803-3	Mst. Sanjida Rahman	800	The Sweet Course	81692410

More than 10 rows available. Increase rows selector to view more rows.

(2) Display shop_name, member_name and employee_name who serve customer.
Ans :
SELECT S.SHOP_NAME,M.CUSTOMER_NAME,E.EMPLOYEE_NAME FROM SHOP S,MEMBER M,EMPLOYEE E,SERVICE S WHERE E.TREND_LICENSE=S.TREND_LICENSE AND E.EMPLOYEE_ID=S.EMPLOYEE_ID AND S.MEMBER_ID=M.MEMBER_ID

```
select s.shop_name,m.customer_name,e.employee_name from shop s,member m,employee e,service s where
e.trend_license=s.trend_license and e.employee_id=s.employee_id and s.member_id=m.member_id
```

Results Explain Describe Saved SQL History

SHOP_NAME	CUSTOMER_NAME	EMPLOYEE_NAME
The Sweet Course	Lord Shanto	MD.Jewel Rana
Scoops Of Delight	Nura Alam	MD.Roni Ahamed
Sugar Rush Cones	Aiff Hossain	Tomal Chowdhury
Icy Vanilla Moon	Mahendra Bahubali	Shogh
Fantasy Scoop	Kattapa Chowdhury	Mehedi Hasan Mamun
Frosty Dream	Tamim Iqbal	Musfikur Rahman Muin
Scoops Of Delight	Shakib Al Hasan	Nur Tomal
Sugar Rush Cones	Anamul Haque Bijoy	Ebrahim Omi
The Sweet Course	Nasum Ahamd	MD.Bijoy Hossen
The Sweet Course	Liton Das	Mst. Sanjida Rahman

ii) OUTERJOIN

1. Display the employee_name, employee_id and job_level_name for all job_level.
Ans:
select e.employee_id, e.employee_name, e.employee_salary,j.job_level_name from employee e,job_level j where e.job_id(+)=j.job_id

```
select e.employee_id, e.employee_name, e.employee_salary,j.job_level_name from employee e,job_level j
where e.job_id(+)=j.job_id
```

Results Explain Describe Saved SQL History

EMPLOYEE_ID	EMPLOYEE_NAME	EMPLOYEE_SALARY	JOB_LEVEL_NAME
13-5810-10	Shogh	480	Manager
12-45809-9	Ebrahim Omi	500	Manager
11-45805-5	MD.Mehadi	1600	Manager
14-45814-2	Ashikul Islam Faisal	2467	Manager
15-45816-4	Musfikur Rahman Muin	4577	Manager
10-45801-1	MD.Jewel Rana	500	Manager
15-45818-6	Nafiun Ovi	350	Sales associate
11-45804-4	MD.Roni Ahamed	550	Sales associate
14-45813-1	Mehedi Hasan Mamun	700	Sales associate
10-45802-2	MD.Bijoy Hossen	1500	Cashier
12-25808-8	Shanto Bishaws	2500	Inventory associate
13-5812-12	Rezwanul Kabir	600	Representative
12-45807-7	Tomal Chowdhury	400	Representative
-	-	-	Warehouse clerk
14-45815-3	Yeasin Newaz	1358	Assistant manager
10-45803-3	Mst. Sanjida Rahman	800	Assistant manager
-	-	-	Control specialist
13-5811-11	Afsana Onu	1640	Floor manager
15-55817-5	Saimuzzaman Sakib	453	Store Manager
11-45806-6	Nur Tomal	800	Store Manager

2. Display employee_name, owner_id for whose employee who get order from owners for all employees.
   Answer :
   select e.employee_name,r.owner_id from employee e,owner o,orders r where e.employee_id=r.employee_id(+)

```
select distinct(e.employee_name),r.owner_id from employee e,owner o,orders r where
e.employee_id=r.employee_id(+)
```

Results Explain Describe Saved SQL History

EMPLOYEE_NAME	OWNER_ID
Tomal Chowdhury	1002
Musfikur Rahman Muin	1005
Mst. Sanjida Rahman	1009
Ashikul Islam Faisal	-
MD.Mehadi	-
MD.Bijoy Hossen	1008
Mithila	-
Shogh Ahamad	1003
Rezwanul Kabir	-
Yeasin Newaz	-
Shanto Bishaws	-
MD.Roni Ahamed	1001
Nur Tomal	1006
Nafiun Ovi	-
Afsana Onu	-
Ebrahim Omi	1007
MD.Jewel Rana	1010
Mehedi Hasan Mamun	1004
Tahsan Khan	-

iii) Self Join :

1) Display employee_name and there manager name .
   select e.employee_name || ' Manager is '|| m.employee_name from employee e,employee m where e.employee_id=m.manager_id

```
select m.customer_name|| ' Bill is paid by '||p.customer_name from member m,member p where m.member_id=p.paYed_by
```

Results Explain Describe Saved SQL History

M.CUSTOMER_NAME||'BILLISPAIDBY'||P.CUSTOMER_NAME
Nura Alam Bill is paid by Lord Shanto
Nura Alam Bill is paid by Nura Alam
Shakib Al Hasan Bill is paid by Aiff Hossain
Tamim Iqbal Bill is paid by Mahendra Bahubali
Liton Das Bill is paid by Kattapa Chowdhury
Nura Alam Bill is paid by Tamim Iqbal
Lord Shanto Bill is paid by Shakib Al Hasan
Kattapa Chowdhury Bill is paid by Anamul Haque Bijoy
Nasum Ahamd Bill is paid by Nasum Ahamd
Liton Das Bill is paid by Liton Das

10 rows returned in 0.02 seconds CSV Export

2) Display customer name and Whose name how pay there bill.
   Ans :
   select m.customer_name|| ' Bill is paid by '||p.customer_name from member m,member p where m.member_id=p.paYed_by

```
select e.employee_name || ' Manager is '|| m.employee_name from employee e,employee m where e.employee_id=m.manager_id
```

Results Explain Describe Saved SQL History

E.EMPLOYEE_NAME||'MANAGERIS'||M.EMPLOYEE_NAME
MD.Jewel Rana Manager is Mst. Sanjida Rahman
MD.Mehadi Manager is MD.Roni Ahamed
MD.Mehadi Manager is Nur Tomal
Ebrahim Omi Manager is Tomal Chowdhury
Ebrahim Omi Manager is Shanto Bishaws
Shogh Manager is Afsana Onu
MD.Jewel Rana Manager is MD.Bijoy Hossen
Shogh Manager is Rezwanul Kabir
Ashikul Islam Faisal Manager is Mehedi Hasan Mamun
Ashikul Islam Faisal Manager is Yeasin Newaz
Musfikur Rahman Muin Manager is Saimuzzaman Sakib
Musfikur Rahman Muin Manager is Nafiun Ovi

12 rows returned in 0.00 seconds CSV Export

iv) NON EQUIJOIN:

i) Display Customer_name and shop name for those custom whose date of birth in greater then the shop established and customer age greater then 24 year.

Ans :

select m.customer_name,s.shop_name from member m,shop s where m.dob>s.est_date AND (SYSDATE - dob) > 8760

```
select m.customer_name,s.shop_name from member m,shop s where m.dob>s.est_date AND (SYSDATE - dob) > 8760
```

Results Explain Describe Saved SQL History

CUSTOMER_NAME	SHOP_NAME
Mahendra Bahubali	Chilled Bites
Tamim Iqbal	Chilled Bites
Shakib Al Hasan	Chilled Bites

3 rows returned in 0.00 seconds CSV Export

ii) Display employee_name and there department number who get salary more then average salary from job_salary and less then maximum salary.

Ans :

select e.employee_name,j.job_level_name from employee e,job_level j where e.employee_salary between (select avg(job_salary) from job_level) and (select max(job_salary) from job_level) and e.job_id=j.job_id

```
select e.employee_name,j.job_level_name from employee e,job_level j where e.employee_salary between (select avg(job_salary) from job_level)  and (select max(job_salary) from job_level) and e.job_id=j.job_id
```

Results Explain Describe Saved SQL History

EMPLOYEE_NAME	JOB_LEVEL_NAME
Shanto Bishaws	Inventory associate
Ashikul Islam Faisal	Manager
Musfikur Rahman Muin	Manager

3 rows returned in 0.00 seconds CSV Export

2. Sub Query :

i) Display employee name, salary who work in Manager level

Ans :

select employee_name,employee_salary from employee where job_id=(select job_id from job_level where job_level_name='Manager')

```
select employee_name,employee_salary from employee where job_id=(select job_id from job_level where job_level_name='Manager')
```

Results Explain Describe Saved SQL History

EMPLOYEE_NAME	EMPLOYEE_SALARY
MD.Mehadi	1600
Ebrahim Omi	500
Shogh	480
MD.Jewel Rana	500
Ashikul Islam Faisal	2467
Musfikur Rahman Muin	4577

6 rows returned in 0.00 seconds CSV Export

ii) Display Member_id, member_name, bill_number who payed 500 .

Ans :

select member_id,customer_name ,bill_number from member where bill_number in(select bill_number from Bill where Total_amount =500)

```
select member_id,customer_name ,bill_number from member where bill_number in(select bill_number from Bill
```

Results Explain Describe Saved SQL History

MEMBER_ID	CUSTOMER_NAME	BILL_NUMBER
105	Tamim Iqbal	10002
107	Anamul Haque Bijoy	10004

2 rows returned in 0.00 seconds CSV Export

iii) Display Member_id, member_name, bill_number who payed more then 400.

Ans:

select member_id,customer_name ,bill_number from member where bill_number >(select bill_number from Bill where Total_amount =400)

```
select member_id,customer_name ,bill_number from member where bill_number >(select bill_number from Bill
where Total_amount =400)
```

Results Explain Describe Saved SQL History

MEMBER_ID	CUSTOMER_NAME	BILL_NUMBER
100	Lord Shanto	10007
102	Aiff Hossain	10008
103	Mahendra Bahubali	10009
105	Tamim Iqbal	10002
106	Shakib Al Hasan	10003
107	Anamul Haque Bijoy	10004
108	Nasum Ahamd	10005
109	Liton Das	10006

8 rows returned in 0.00 seconds CSV Export

iv) Display employee_name,employee_salary and join_date for shop which is located in Bananni.

Ans :

select employee_name,employee_salary , join_date from employee where trend_license=(select trend_license from shop where location ='Bonanni')

```
select employee_name,employee_salary , join_date from employee where  trend_license=(select trend_license
from shop where location ='Bonanni')
```

Results Explain Describe Saved SQL History

EMPLOYEE_NAME	EMPLOYEE_SALARY	JOIN_DATE
Mst. Sanjida Rahman	800	10-MAR-10
MD.Jewel Rana	500	10-JAN-10
MD.Bijoy Hossen	1500	09-FEB-10

3 rows returned in 0.00 seconds CSV Export

v) Display employee_name, join_date, employee_salary who check Vanilla flavor on stock.

Ans :

select employee_name, join_date, employee_salary from employee where employee_id = (select employee_id from empCheck where flavor_name='Vanilla')

```
select employee_name, join_date, employee_salary from employee where  employee_id = (select employee_id
from empCheck where flavor_name='Vanilla')
```

Results Explain Describe Saved SQL History

EMPLOYEE_NAME	JOIN_DATE	EMPLOYEE_SALARY
Tomal Chowdhury	01-JUL-12	400

1 rows returned in 0.00 seconds CSV Export

3.SINGLE ROW FUNCTION :

1. Create a query to display the employee_name,empolyee id concat employee name and salary whose id=10-45801-1

Ans :

select employee_name,employee_id, concat(employee_name,employee_salary) as EmpNaSa from employee where employee_id='10-45801-1'

```
select employee_name,employee_id, concat(employee_name,employee_salary) as EmpNaSa from employee where employee_id='10-45801-1'
```

Results Explain Describe Saved SQL History

EMPLOYEE_NAME	EMPLOYEE_ID	EMPNASA
MD.Jewel Rana	10-45801-1	MD.Jewel Rana500

1 rows returned in 0.00 seconds CSV Export

2. Display the employee id, name, and join date for employee Mst. Sanjida Rahman
   Ans :
   select employee_name,employee_id from employee where Lower(employee_name)='mst. sanjida rahman'

```
select employee_name,employee_id from employee where Lower(employee_name)='mst. sanjida rahman'
```

Results Explain Describe Saved SQL History

EMPLOYEE_NAME	EMPLOYEE_ID
Mst. Sanjida Rahman	10-45803-3

1 rows returned in 0.00 seconds CSV Export

3. Calculate the remainder of the ratio of salary to working for all employees whose treand licence is 81692412
   Ans :
   select employee_name,employee_salary,working_period, MOD(employee_salary, working_period) from employee where trend_license ='81692412'

```
select employee_name,employee_salary,working_period, MOD(employee_salary, working_period) from employee where trend_license ='81692412'
```

Results Explain Describe Saved SQL History

EMPLOYEE_NAME	EMPLOYEE_SALARY	WORKING_PERIOD	MOD(EMPLOYEE_SALARY,WORKING_PERIOD)
Tomal Chowdhury	400	8	0
Shanto Bishaws	2500	9	7
Ebrahim Omi	500	8	4

3 rows returned in 0.00 seconds CSV Export

4. display emplyee employee name,salary,working period,Lincense using Character Manipulation Functions
   Ans :
   select employee_name,employee_salary,working_period,concat (employee_name, trend_license),LENGTH(employee_name),INSTR(employee_name, 'a'),SUBSTR(employee_name,1,2) from employee

```
select employee_name,employee_salary,working_period,concat (employee_name,
trend_license),LENGTH(employee_name),INSTR(employee_name, 'a'),SUBSTR(employee_name,1,2)  from employee
```

Results Explain Describe Saved SQL History

EMPLOYEE_NAME	EMPLOYEE_SALARY	WORKING_PERIOD	CONCAT(EMPLOYEE_NAME,TREND_LICENSE)	LENGTH(EMPLOYEE_NAME)
Mst. Sanjida Rahman	800	7	Mst. Sanjida Rahman81692410	19
MD.Roni Ahamed	550	8	MD.Roni Ahamed81692411	14
MD.Mehadi	1600	8	MD.Mehadi 81692411	10
Nur Tomal	800	8	Nur Tomal81692411	9
Tomal Chowdhury	400	8	Tomal Chowdhury81692412	15
Shanto Bishaws	2500	9	Shanto Bishaws81692412	14
Ebrahim Omi	500	8	Ebrahim Omi81692412	11
Shogh Ahamad	480	8	Shogh Ahamad81692413	12
Afsana Onu	1640	6	Afsana Onu81692413	10
MD.Jewel Rana	500	8	MD.Jewel Rana81692410	13
More than 10 rows available. Increase rows selector to view more rows.				

10 rows returned in 0.00 seconds CSV Export

5. Display employee name and convert join date to Caracter.
   Ans:
   select employee_name, to_char(join_date, 'fmDD Month YYYY') join_date from employee

```
select  employee_name, to_char(join_date, 'fmDD Month YYYY') join_date from employee
```

Results Explain Describe Saved SQL History

EMPLOYEE_NAME	JOIN_DATE
Mst. Sanjida Rahman	10 March 2010
MD.Roni Ahamed	12 April 2011
MD.Mehadi	16 May 2011
Nur Tomal	24 June 2011
Tomal Chowdhury	1 July 2012
Shanto Bishaws	10 August 2012
Ebrahim Omi	10 September 2012
Shogh Ahamad	20 October 2013
Afsana Onu	16 November 2013
MD.Jewel Rana	10 January 2010
More than 10 rows available. Increase rows selector to view more rows.	

10 rows returned in 0.00 seconds CSV Export

4.GROUP FUNCTION :

1. Display the max, min profit,and average profit from Stock

   Ans :

```
select  max(total_profit),min(total_profit),avg(total_profit) from Stock
```

Results Explain Describe Saved SQL History

MAX(TOTAL_PROFIT)	MIN(TOTAL_PROFIT)	AVG(TOTAL_PROFIT)
300	20	110

1 rows returned in 0.02 seconds CSV Export

2. Display the employee name, working period, and join date of employee join date between JAN 10, 2010, and NOV 16, 2013. Order the query in ascending order by join date.
   Ans :

select employee_name ,working_period,join_date from employee where join_date between '10-Jan-10' and ' 16-Nov-13' order by join_date asc

```
select employee_name ,working_period,join_date from employee where join_date between '10-Jan-10' and ' 16-Nov-13' order
by join_date asc
```

Results Explain Describe Saved SQL History

EMPLOYEE_NAME	WORKING_PERIOD	JOIN_DATE
MD.Jewel Rana	8	10-JAN-10
MD.Bijoy Hossen	9	09-FEB-10
Mst. Sanjida Rahman	7	10-MAR-10
MD.Roni Ahamed	8	12-APR-11
MD.Mehadi	8	16-MAY-11
Nur Tomal	8	24-JUN-11
Tomal Chowdhury	8	01-JUL-12
Shanto Bishaws	9	10-AUG-12
Ebrahim Omi	8	10-SEP-12
Shogh Ahamad	8	20-OCT-13
More than 10 rows available. Increase rows selector to view more rows.		

10 rows returned in 0.00 seconds CSV Export

3. Display yearly salary from all employee

   Ans :

   select sum(12*employee_salary) from employee

```
select sum(12*employee_salary) from employee
```

Results Explain Describe Saved SQL History

SUM(12*EMPLOYEE_SALARY)
375300

1 rows returned in 0.00 seconds CSV Export

4. dispaly the quary to show the name, salary in descending order who earn lass than maximum salary.

   Ans :

select distinct (employee_name),employee_salary from employee where employee_salary < any (select max(employee_salary) from employee) order by employee_salary desc

```
select distinct (employee_name),employee_salary from employee where employee_salary < any (select max(employee_salary )
from employee ) order by employee_salary desc
```

Results Explain Describe Saved SQL History

EMPLOYEE_NAME	EMPLOYEE_SALARY
Musfikur Rahman Muin	4577
Mithila	2500
Shanto Bishaws	2500
Ashikul Islam Faisal	2467
A.R.Rahman	2000
Afsana Onu	1640
MD.Mehadi	1600
MD.Bijoy Hossen	1500
Yeasin Newaz	1358
Mst. Sanjida Rahman	800
More than 10 rows available. Increase rows selector to view more rows.	

10 rows returned in 0.00 seconds CSV Export

4. Display employee id how many row between employee id 10-45801-1 and 12-45809-9.
   Ans :
   select count(employee_id) from employee where employee_id between '10-45801-1' and '12-45809-9 '

```
select  count(employee_id) from employee where employee_id between '10-45801-1' and '12-45809-9 '
```

Results Explain Describe Saved SQL History

COUNT(EMPLOYEE_ID)
9

1 rows returned in 0.00 seconds CSV Export

5. VIEW :

create or replace view empView as select employee_id,employee_name,employee_salary from employee where employee_salary > (select avg(employee_salary) from employee)

```
desc empView
```

Results Explain Describe Saved SQL History

Object Type **VIEW** Object **EMPVIEW**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPVIEW	EMPLOYEE_ID	Varchar2	10	-	-	-	-	-	-
	EMPLOYEE_NAME	Varchar2	30	-	-	-	-	-	-
	EMPLOYEE_SALARY	Number	-	6	0	-	✓	-	-

Display all information of EmpView View.

```
select * from empView
```

Results Explain Describe Saved SQL History

EMPLOYEE_ID	EMPLOYEE_NAME	EMPLOYEE_SALARY
11-45805-5	MD.Mehadi	1600
12-25808-8	Shanto Bishaws	2500
13-5811-11	Afsana Onu	1640
10-45802-2	MD.Bijoy Hossen	1500
14-45814-2	Ashikul Islam Faisal	2467
14-45815-3	Yeasin Newaz	1358
15-45816-4	Musfikur Rahman Muin	4577

7 rows returned in 0.00 seconds CSV Export

Inset value in view

a) insert into empView values ('15-45818-7','A.R.Rahman',2000)
b) insert into empView values ('15-45819-8','Tahsan Khan',5000)
c) insert into empView values ('15-45820-9','Mithila ',2500)

```
select * from empView
```

Results Explain Describe Saved SQL History

EMPLOYEE_ID	EMPLOYEE_NAME	EMPLOYEE_SALARY
11-45805-5	MD.Mehadi	1600
12-25808-8	Shanto Bishaws	2500
13-5811-11	Afsana Onu	1640
10-45802-2	MD.Bijoy Hossen	1500
14-45814-2	Ashikul Islam Faisal	2467
15-45816-4	Musfikur Rahman Muin	4577
15-45820-9	Mithila	2500
15-45818-7	A.R.Rahman	2000
15-45819-8	Tahsan Khan	5000

9 rows returned in 0.00 seconds CSV Export

6. Sequence :

Create Sequence member_sequence

INCREMENT BY 1

START WITH 110

MAXVALUE 1000

NOCACHE

NOCYCLE

```
desc member_sequence
```

Results Explain Describe Saved SQL History

Object Type **SEQUENCE** Object **MEMBER_SEQUENCE**

Data Insert by using Sequence

```
insert into member(member_id,customer_name,customer_number,bill_number,payed_by,dob)
values(member_sequence.NEXTVAL,'NoName',17903368345,10006,104,'22-MAR-06')
```

Results Explain Describe Saved SQL History

```
1 row(s) inserted.
```

7. GENERAL QUERY :

1. Display all information about employee whose name have latest one a and job_level_name is not Manager.

Ans :

select * from employee where employee_name like '%m%' and job_id <> (select job_id from job_level where job_level_name='Manager')

```
select * from employee where employee_name like '%m%' and job_id <> (select job_id from job_level where
job_level_name='Manager')
```

Results Explain Describe Saved SQL History

EMPLOYEE_ID	EMPLOYEE_NAME	EMPLOYEE_SALARY	WORKING_PERIOD	JOIN_DATE	JOB_ID	TREND_LICENSE	MANAGER
10-45803-3	Mst. Sanjida Rahman	800	7	10-MAR-10	107	81692410	10-45801-1
11-45804-4	MD.Roni Ahamed	550	8	12-APR-11	102	81692411	11-45805-5
11-45806-6	Nur Tomal	800	8	24-JUN-11	110	81692411	11-45805-5
12-45807-7	Tomal Chowdhury	400	8	01-JUL-12	105	81692412	12-45809-9
14-45813-1	Mehedi Hasan Mamun	700	8	10-JAN-14	102	81692414	14-45814-2
15-55817-5	Saimuzzaman Sakib	453	9	24-MAY-15	110	81692415	15-45816-4

6 rows returned in 0.00 seconds CSV Export

2. Display customer_name,member_id and total bill who paid more then average bill and less then maximum bill.

Ans :

select distinct(m.member_id), m.customer_name,b.total_Amount from member m,bill b where m.bill_number in(select bill_number from bill where total_Amount > (select avg(total_Amount) from Bill) and total_Amount <(select max(total_Amount) from Bill)) and m.bill_number=b.bill_number.

```
select distinct(m.member_id), m.customer_name,b.total_Amount from member m,bill b where
m.bill_number in(select bill_number from bill where total_Amount > (select avg(total_Amount )
from Bill ) and total_Amount <(select max(total_Amount ) from Bill) ) and
m.bill_number=b.bill_number
```

Results Explain Describe Saved SQL History

MEMBER_ID	CUSTOMER_NAME	TOTAL_AMOUNT
103	Mahendra Bahubali	800
102	Aiff Hossain	700
108	Nasum Ahamd	900
106	Shakib Al Hasan	600

4 rows returned in 0.02 seconds CSV Export

3. Display employee name ,employee id , joining date who work for shop at least 5 year.

Ans : select employee_id,employee_name,join_date from employee where (sysdate-join_date)/365>10

```
select employee_id,employee_name,join_date from employee where (SYSDATE-join_date)/365>10
```

Results Explain Describe Saved SQL History

EMPLOYEE_ID	EMPLOYEE_NAME	JOIN_DATE
10-45803-3	Mst. Sanjida Rahman	10-MAR-10
11-45804-4	MD.Roni Ahamed	12-APR-11
11-45805-5	MD.Mehadi	16-MAY-11
11-45806-6	Nur Tomal	24-JUN-11
12-45807-7	Tomal Chowdhury	01-JUL-12
12-25808-8	Shanto Bishaws	10-AUG-12
12-45809-9	Ebrahim Omi	10-SEP-12
10-45801-1	MD.Jewel Rana	10-JAN-10
10-45802-2	MD.Bijoy Hossen	09-FEB-10

9 rows returned in 0.00 seconds CSV Export

5. Display member_id, customer_name, dob who born after the member whose name start with L.
   Ans :
   select member_id,customer_name,dob from member where dob > any (select dob from member where customer_name like 'L%')

```
select member_id,customer_name,dob from member where dob > any (select dob from member where customer_name like 'L%')
```

Results Explain Describe Saved SQL History

MEMBER_ID	CUSTOMER_NAME	DOB
107	Anamul Haque Bijoy	07-OCT-09
111	NoName	22-MAR-06
102	Aiff Hossain	12-FEB-02
101	Nura Alam	03-JUL-01
100	Lord Shanto	23-JAN-99

5 rows returned in 0.01 seconds CSV Export

6. Display shop_name, owner_name, owner_id of a shop.
   Ans:
   select s.shop_name,o.owner_id,o.owner_name from shop s,owner o where o.trend_License=s.trend_License

```
select s.shop_name,o.owner_id,o.owner_name from shop s,owner o where o.trend_License=s.trend_License
```

Results Explain Describe Saved SQL History

SHOP_NAME	OWNER_ID	OWNER_NAME
The Sweet Course	1001	Sami
Scoops Of Delight	1002	Tauhid
Sugar Rush Cones	1003	Hasan
Icy Vanilla Moon	1004	Maahi
Fantasy Scoop	1005	Jhothir
Frosty Dream	1006	Sarker
Ice Cream Alley	1007	Emon
Chilled Bites Parlor	1008	Nure
Chilled Bites	1009	Alom
Banana Split Town	1010	Jnams

10 rows returned in 0.05 seconds CSV Export