American International University- Bangladesh
Department of Computer Science
Faculty of Science and Technology

Semester: Fall 2021-2022   **Section:** C

Course	INTRODUCTION TO DATABASE

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Title:

RESTAURANT MANAGEMENT SYSTEM

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CONTENTS

- **<u>Introduction:</u>** A database management system (DBMS) is a system software for creating and managing databases. The DBMS provides users and programmers with a systematic way to create, retrieve, update and manage data. A DBMS makes it possible for end users to create, read, update and delete data in a database. In this project, we tried to create a database system of a restaurant management using the concept of DBMS.

- **<u>Scenario:</u>** A restaurant management system is to automate day to day activity of a restaurant. A restaurant is a kind of business that serves people all over the world with readymade food. In the restaurant management system, restaurant will be uniquely identified by trade_license, city, and name. The restaurant has several branches throughout the country. Restaurants are controlled by a manager who will be uniquely identified by m_id, name, salary and hiredate. A cashier is supervised by a manager who will be identified by name, salary, unique ch_id, acc_no, and city. A cashier can permit many waiters. Waiters have name, salary, hiredate, and a unique w_id. Waiters serve different types of customers in restaurant. Customers are identified by name, address, a unique c_id, and a voucher. Customers are shipped their order by delivery boy. Delivery boy has unique tracking_no, phone, name, and unique d_id. A delivery boy picks up items from menu to deliver to the customer. Menu has menu_no and it will also store price and name of different food items of menu. These different items from menu are purchased by customers by using online service. In online service, there are many app identified by app name and unique app_id by which customer can simply order their preferred food from home.

  The details of the restaurant are stored into the respective tables with all columns. Each entity contains primary key. There is one to many,

many to one and many to many relationships available. All the entities are normalized. The queries are written in oracle SQL.

ER DIAGRAM

(Update: Participation and Aggregation added)

Normalization

(Primary Key, Foreign Key)

Restaurant<has>Online service

HAS –

(trade_license, city, name, app_id, app_name)

1NF: no multivalued attribute

2NF: trade_license, city, name
   app_id, app_name

3NF: No transitive dependency
   trade_license, city, name
   app_id, app_name

> Final list for Restaurant:
> 1. trade_license, city, name
>
> 2. app_id, app_name, trade_license

Online service<purchase>Menu

Purchase –

(app_id, app_name, menu_no, name, price)

1NF: no multivalued attribute

2NF: App_id, app-name
   Menu_no, name, price

3NF: No transitive dependency

App_id, app_name
Menu_no, name, price

- ➢ Final list for purchase:
    3. App_id, app_name
    4. Menu_no, name, price
    5. App_id, menu_no

Menu<pick up>Delivery boy

Pick up –

(menu_no, name, price, d_id, name, phone, tracking_no)

1NF: phone is a multivalued attribute

2NF: menu_no, name, price
   d_id, name, phone, tracking_no

3NF: No transitive dependency
   menu_no, name, price
   d_id, name, phone, tracking_no

- ➢ Final list for pick up:
    6. menu_no, name, price, d_id
    7. d_id, name, tracking_no
    8. d_id, phone- Composite pk

Delivery boy<Ship>Customer

Ship-

(d_id, name, phone, tracking_no, c_id, name, voucher, c_phone, address)

1NF: phone, c_phone are multivalued attributes

2NF: d_id, name, phone, tracking_no
      c_id, name, voucher, c_phone, address

3NF: No transitive dependency
      d_id, name, phone, tracking_no
      c_id, name, voucher, c_phone, address

> Final list for shipped:
>   9. d_id, name, phone, tracking_no
>   10. c_id, name, voucher, c_phone, address, d_id
>   11. d_id, phone- Composite pk
>   12. c_id, c_phone- Composite pk

Customer<serve>Waiter

Serve-
(c_id, name, voucher, c_phone, address, w_id, name, w_salary, w_hiredate)

1NF: c_phone is a multivalued attribute

2NF: c_id, name, voucher, c_phone, address
      w_id, name, w_salary, w_hiredate

3NF: No transitive dependency
      c_id, name, voucher, c_phone, address
      w_id, name, w_salary, w_hiredate

> Final list for serve:
>   13. c_id, name, voucher, c_phone, address
>   14. w_id, name, w_salary, w_hiredate
>   15. c_id, c_phone, w_id- Composite pk

Waiter<permit>Cashier

Permit-
(w_id, name, w_salary, w_hiredate, ch_id, name, acc_no, salary, city)

1NF: no multivalued attribute

2NF: w_id, name, w_salary, w_hiredate
    ch_id, name, acc_no, salary, city

3NF: w_id, name, w_salary, w_hiredate
    ch_id, name, acc_no, salary
    cc_id, city, m_id

> - Final list for serve:
>   16. w_id, name, w_salary, w_hiredate, ch_id
>   17. ch_id, name, acc_no, salary, cc_id
>   18. cc_id, city, m_id

Cashier<supervise>Manager

Supervise-
(ch_id, name, acc_no, salary, city, m_id, name, salary, hiredate)

1NF: no multivalued attribute

2NF: ch_id, name, acc_no, salary, city
    m_id, name, salary, hiredate

3NF: ch_id, name, acc_no, salary
    cc_id, city
    m_id, name, salary, hiredate

➢ Final list for supervise:
19.ch_id, name, acc_no, salary, cc_id
20.cc_id, city, m_id
21.m_id, name, salary, hiredate

Manager<control>Restaurant

Control-
(m_id, name, salary, hiredate, trade_license, city, name)

1NF: no multivalued attribute

2NF: m_id, name, salary, hiredate
trade_license, city, name

3NF: No transitive dependency
m_id, name, salary, hiredate
trade_license, city, name

➢ Final list for control:
22.m_id, name, salary, hiredate, trade_license
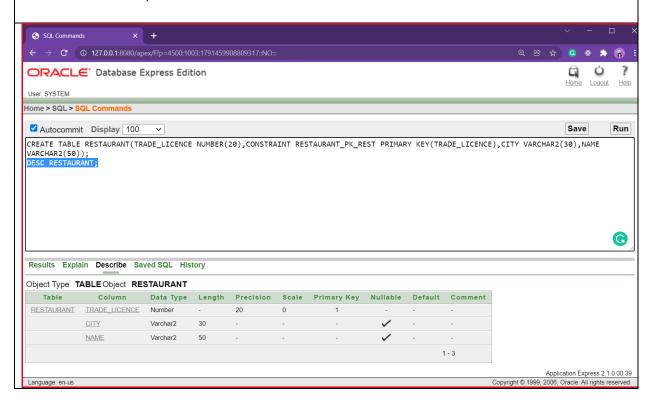23.trade_license, city, name

Final list from normalization

1. trade_license, city, name -> RESTAURANT

2. app_id, app_name, trade_license -> ONLINE SERVICE

3. app_id, menu_no -> ONLINE INFO

4. menu_no, name, price, d_id -> MENU

5. d_id, phone- Composite pk -> DELIVERY BOY INFO

6. d_id, name, phone, tracking_no -> DELIVERY BOY

7. c_id, name, voucher, c_phone, address, d_id -> CUSTOMER

8. c_id, c_phone, w_id - Composite pk -> CUSTOMER INFO

9. w_id, name, w_salary, w_hiredate, ch_id -> WAITER

10. cc_id, city, m_id -> CASHIER INFO

11. ch_id, name, acc_no, salary, cc_id -> CASHIER

12. m_id, name, salary, hiredate, trade_license -> MANAGER

Table Creation

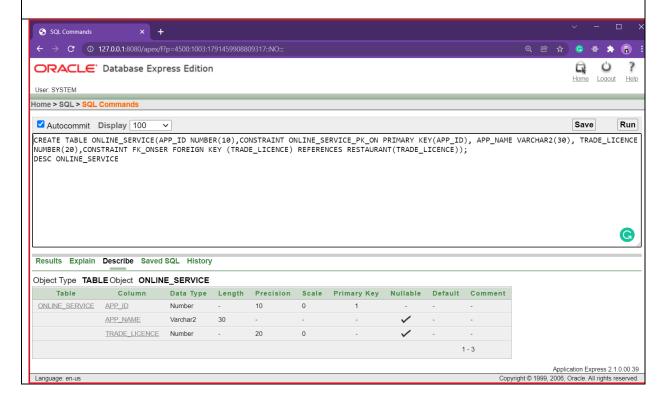| Description RESTAURANT Table |
| --- |
| CREATE TABLE RESTAURANT(TRADE_LICENCE NUMBER(20),CONSTRAINT RESTAURANT_PK_REST PRIMARY KEY(TRADE_LICENCE),CITY VARCHAR2(30),NAME VARCHAR2(50));

DESC RESTAURANT; |

Description Online_Service Table

CREATE TABLE ONLINE_SERVICE(APP_ID NUMBER(10),CONSTRAINT ONLINE_SERVICE_PK_ON PRIMARY KEY(APP_ID), APP_NAME VARCHAR2(30), TRADE_LICENCE NUMBER(20),CONSTRAINT FK_ONSER FOREIGN KEY (TRADE_LICENCE) REFERENCES RESTAURANT(TRADE_LICENCE));
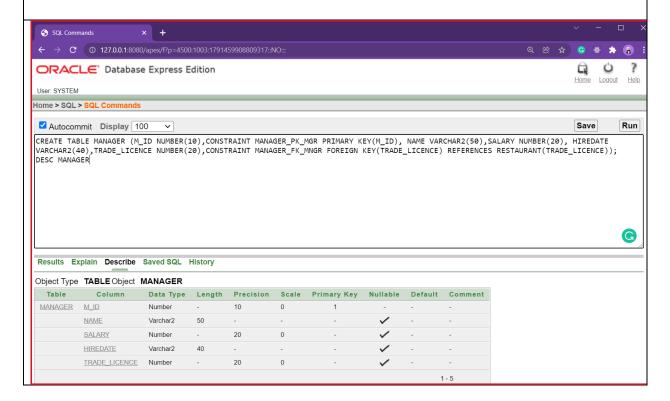
DESC ONLINE_SERVICE

Description MANAGER Table

CREATE TABLE MANAGER (M_ID NUMBER(10),CONSTRAINT MANAGER_PK_MGR PRIMARY KEY(M_ID), NAME VARCHAR2(50),SALARY NUMBER(20), HIREDATE VARCHAR2(40),TRADE_LICENCE NUMBER(20),CONSTRAINT MANAGER_FK_MNGR FOREIGN KEY(TRADE_LICENCE) REFERENCES RESTAURANT(TRADE_LICENCE));
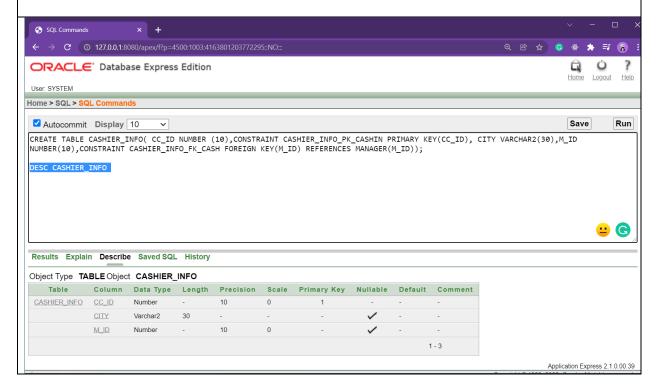
DESC MANAGER

Description CASHIER_INFO Table

CREATE TABLE CASHIER_INFO(CC_ID NUMBER (10),CONSTRAINT CASHIER_INFO_PK_CASHIN PRIMARY KEY(CC_ID), CITY VARCHAR2(30),M_ID NUMBER(10),CONSTRAINT CASHIER_INFO_FK_CASH FOREIGN KEY(M_ID) REFERENCES MANAGER(M_ID));
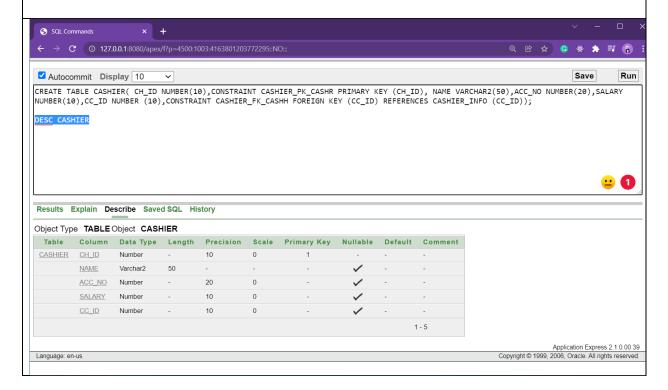
DESC CASHIER_INFO

Description CASHIER Table

CREATE TABLE CASHIER(CH_ID NUMBER(10),CONSTRAINT CASHIER_PK_CASHR PRIMARY KEY (CH_ID), NAME VARCHAR2(50),ACC_NO NUMBER(20),SALARY NUMBER(10),CC_ID NUMBER (10),CONSTRAINT CASHIER_FK_CASHH FOREIGN KEY (CC_ID) REFERENCES CASHIER_INFO (CC_ID));

DESC CASHIER

SQL Commands

`127.0.0.1:8080/apex/f?p=4500:1003:4163801203772295::NO:::`

☑ Autocommit Display `10`   Save   Run

```
CREATE TABLE CASHIER( CH_ID NUMBER(10),CONSTRAINT CASHIER_PK_CASHR PRIMARY KEY (CH_ID), NAME VARCHAR2(50),ACC_NO NUMBER(20),SALARY
NUMBER(10),CC_ID NUMBER (10),CONSTRAINT CASHIER_FK_CASHH FOREIGN KEY (CC_ID) REFERENCES CASHIER_INFO (CC_ID));
DESC CASHIER
```
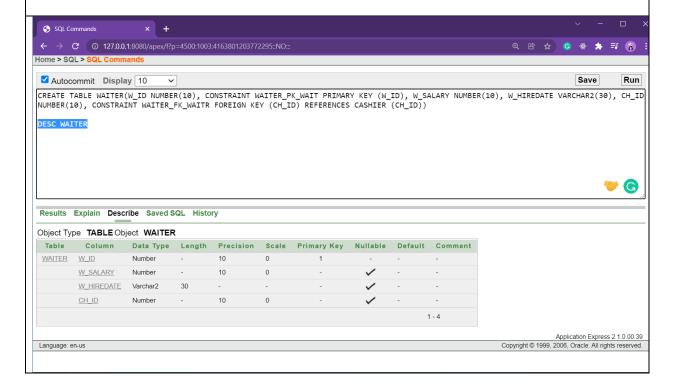
😐 ①

Results Explain Describe Saved SQL History

Object Type **TABLE** Object **CASHIER**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CASHIER	CH_ID	Number	-	10	0	1	-	-	-
	NAME	Varchar2	50	-	-	-	✔	-	-
	ACC_NO	Number	-	20	0	-	✔	-	-
	SALARY	Number	-	10	0	-	✔	-	-
	CC_ID	Number	-	10	0	-	✔	-	-
									1 - 5

Description WAITER Table

CREATE TABLE WAITER(W_ID NUMBER(10), CONSTRAINT WAITER_PK_WAIT PRIMARY KEY (W_ID), W_SALARY NUMBER(10), W_HIREDATE VARCHAR2(30), CH_ID NUMBER(10), CONSTRAINT WAITER_FK_WAITR FOREIGN KEY (CH_ID) REFERENCES CASHIER (CH_ID))
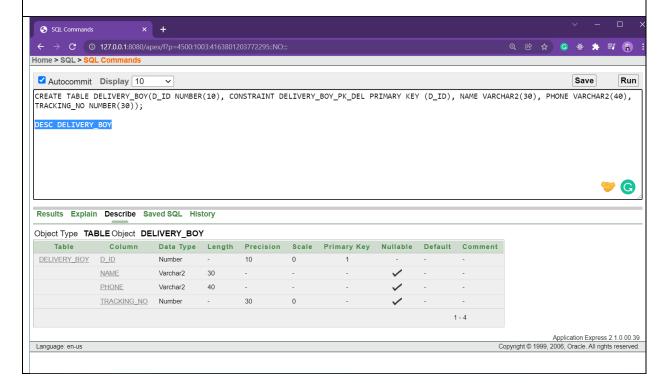
DESC WAITER

Description DELIVERY_BOY Table

CREATE TABLE DELIVERY_BOY(D_ID NUMBER(10), CONSTRAINT DELIVERY_BOY_PK_DEL PRIMARY KEY (D_ID), NAME VARCHAR2(30), PHONE VARCHAR2(40), TRACKING_NO NUMBER(30));
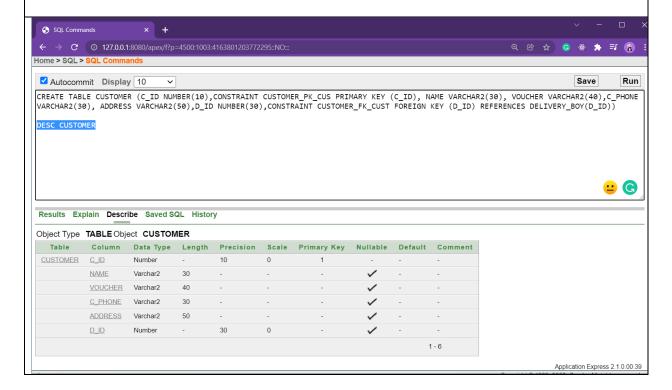
DESC DELIVERY_BOY

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **DELIVERY_BOY**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DELIVERY_BOY	D_ID	Number	-	10	0	1	-	-	-
	NAME	Varchar2	30	-	-	-	✔	-	-
	PHONE	Varchar2	40	-	-	-	✔	-	-
	TRACKING_NO	Number	-	30	0	-	✔	-	-
								1 - 4	

Description CUSTOMER Table

CREATE TABLE CUSTOMER (C_ID NUMBER(10),CONSTRAINT CUSTOMER_PK_CUS PRIMARY KEY (C_ID), NAME VARCHAR2(30), VOUCHER VARCHAR2(40),C_PHONE VARCHAR2(30), ADDRESS VARCHAR2(50),D_ID NUMBER(30),CONSTRAINT CUSTOMER_FK_CUST FOREIGN KEY (D_ID) REFERENCES DELIVERY_BOY(D_ID));
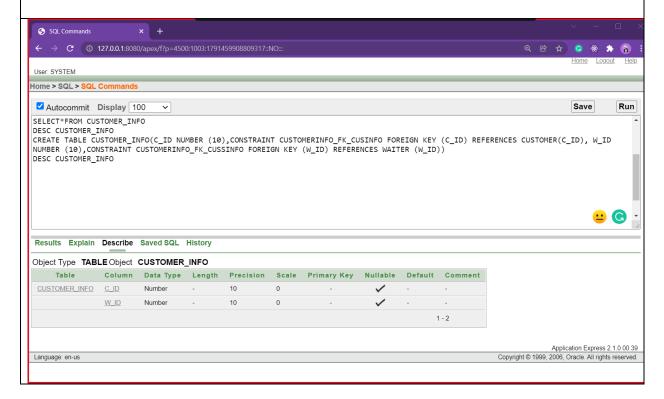
DESC CUSTOMER

Object Type **TABLE** Object **CUSTOMER**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMER	C_ID	Number	-	10	0	1	-	-	-
	NAME	Varchar2	30	-	-	-	✔	-	-
	VOUCHER	Varchar2	40	-	-	-	✔	-	-
	C_PHONE	Varchar2	30	-	-	-	✔	-	-
	ADDRESS	Varchar2	50	-	-	-	✔	-	-
	D_ID	Number	-	30	0	-	✔	-	-
									1 - 6

Application Express 2.1.0.00.39

Description CUSTOMER_INFO Table

CREATE TABLE CUSTOMER_INFO(C_ID NUMBER (10),CONSTRAINT CUSTOMERINFO_FK_CUSINFO FOREIGN KEY (C_ID) REFERENCES CUSTOMER(C_ID), W_ID NUMBER (10),CONSTRAINT CUSTOMERINFO_FK_CUSSINFO FOREIGN KEY (W_ID) REFERENCES WAITER (W_ID));

DESC CUSTOMER_INFO

Description DELIVERY_BOY_INFO Table

CREATE TABLE DELIVERY_BOY_INFO (D_ID NUMBER(10),CONSTRAINT DELIVERY_BOY_INFO_FK_DINFO FOREIGN KEY(D_ID) REFERENCES DELIVERY_BOY(D_ID),PHONE VARCHAR2(30));
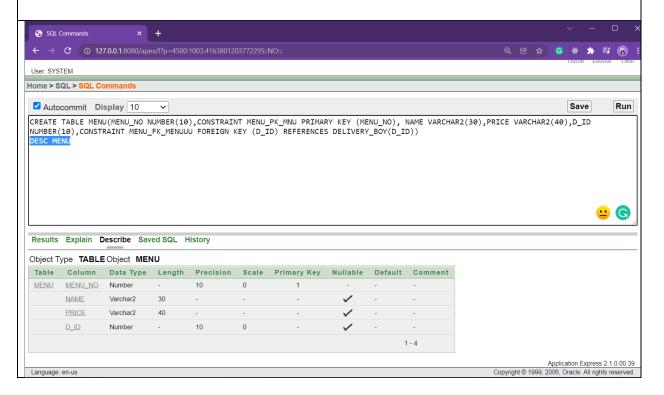
DESC DELIVERY_BOY_INFO

Description MENU Table

CREATE TABLE MENU(MENU_NO NUMBER(10),CONSTRAINT MENU_PK_MNU PRIMARY KEY (MENU_NO), NAME VARCHAR2(30),PRICE VARCHAR2(40),D_ID NUMBER(10),CONSTRAINT MENU_FK_MENUUU FOREIGN KEY (D_ID) REFERENCES DELIVERY_BOY(D_ID));

DESC MENU

User: SYSTEM

Home > SQL > **SQL Commands**

☑ Autocommit **Display** 10 ▾   Save   Run

```
CREATE TABLE MENU(MENU_NO NUMBER(10),CONSTRAINT MENU_PK_MNU PRIMARY KEY (MENU_NO), NAME VARCHAR2(30),PRICE VARCHAR2(40),D_ID
NUMBER(10),CONSTRAINT MENU_FK_MENUUU FOREIGN KEY (D_ID) REFERENCES DELIVERY_BOY(D_ID))
DESC MENU
```

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **MENU**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
MENU	MENU_NO	Number	-	10	0	1	-	-	-
	NAME	Varchar2	30	-	-	-	✔	-	-
	PRICE	Varchar2	40	-	-	-	✔	-	-
	D_ID	Number	-	10	0	-	✔	-	-
									1 - 4

Application Express 2.1.0.00.39

Language: en-us   Copyright © 1999, 2006, Oracle. All rights reserved.

Description ONLINE_INFO Table

CREATE TABLE ONLINE_INFO(APP_ID NUMBER(10),CONSTRAINT FK_OLLL FOREIGN KEY (APP_ID) REFERENCES ONLINE_SERVICE(APP_ID),MENU_NO NUMBER (10),CONSTRAINT FK_OONN FOREIGN KEY (MENU_NO) REFERENCES MENU(MENU_NO));

DESC ONLINE_INFO

Value Insertion

RESTAURANT VALUE Insertion

INSERT INTO RESTAURANT VALUES(7757,'DHAKA','DINER')
INSERT INTO RESTAURANT VALUES(7976,'CHITTAGONG','RED ROSE')
INSERT INTO RESTAURANT VALUES(7767,'SYHLHET','CHILL OUT')
INSERT INTO RESTAURANT VALUES(7758,'BARISAL','VOOTER BARI')
INSERT INTO RESTAURANT VALUES(7759,'TANGAIL','ITALIA')

SELECT * FROM RESTAURANT

ONLINE SERVICE VALUE Insertion

INSERT INTO ONLINE_SERVICE VALUES (121, 'FOOD_PANDA',7757)
INSERT INTO ONLINE_SERVICE VALUES (122, 'UBER_EATS', 7976)
INSERT INTO ONLINE_SERVICE VALUES (123, 'HUNGRY_NAKI', 7767)
INSERT INTO ONLINE_SERVICE VALUES (124, 'PATHAO', 7758)
INSERT INTO ONLINE_SERVICE VALUES (125, 'E_FOOD', 7759)

SELECT * FROM ONLINE_SERVICE

MANAGER VALUE Insertion

INSERT INTO MANAGER VALUES (101 , 'ADNAN', 22000,'20-01-2020', 7757)
INSERT INTO MANAGER VALUES (102 , 'JOYDEP',20000,'01-01-2020', 7976)
INSERT INTO MANAGER VALUES (103 , 'NIPUN', 15000,'20-01-2020', 7767)
INSERT INTO MANAGER VALUES (104 , 'SININ', 18000,'12-01-2020', 7758)
INSERT INTO MANAGER VALUES (105 , 'RAKIB', 17000,'20-01-2020', 7759)

SELECT *FROM MANAGER

CASHIER_INFO VALUE Insertion

INSERT INTO CASHIER_INFO VALUES(201,'DHAKA',101)
INSERT INTO CASHIER_INFO VALUES(202,'CHITTAGONG',102)
INSERT INTO CASHIER_INFO VALUES(203,'SYLHET',103)
INSERT INTO CASHIER_INFO VALUES(204,'BARISAL',104)
INSERT INTO CASHIER_INFO VALUES(205,'TANGAIL',105)

SELECT*FROM CASHIER_INFO

CASHIER VALUE Insertion

INSERT INTO CASHIER VALUES(301,'TANVIR',21525387,10000,201)
INSERT INTO CASHIER VALUES(302,'SADMAN',32525455,12000,202)
INSERT INTO CASHIER VALUES(303,'DEEP',76425365,8000,203)
INSERT INTO CASHIER VALUES(304,'SELIM',89525365,9000,204)
INSERT INTO CASHIER VALUES(305,'MUNIM',21565378,7000,205)

SELECT *FROM CASHIER

Inside the browser screenshot:

SQL Commands

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ORACLE Database Express Edition   Home Logout Help

User: SYSTEM

Home > SQL > SQL Commands

Autocommit Display 100   Save   Run

```
INSERT INTO CUSTOMER VALUES (500,' SAJID ','100', '12345678911', 'NARSHINDI', 501)
INSERT INTO CUSTOMER VALUES (200, 'KAMAL' , '50' , '12345678912', 'DHAKA' , 502)
INSERT INTO CUSTOMER VALUES (300, 'ANIK'  , '50','12345678901', 'SYLHET' , 503)
INSERT INTO CUSTOMER VALUES (400, 'SAAD', '100' , '1234578900', 'KHULNA' , 504)
INSERT INTO CUSTOMER VALUES  (100, 'RAMIM',' NULL', '1234578916','BARISHAL' , 505)

SELECT* FROM CUSTOMER
```

Results Explain Describe Saved SQL History

C_ID	NAME	VOUCHER	C_PHONE	ADDRESS	D_ID
200	KAMAL	50	12345678912	DHAKA	502
300	ANIK	50	12345678901	SYLHET	503
400	SAAD	100	1234578900	KHULNA	504
100	RAMIM	NULL	1234578916	BARISHAL	505
500	SAJID	100	12345678911	NARSHINDI	501

5 rows returned in 0.00 seconds   CSV Export

Application Express 2.1.0.00.39

WAITER VALUE Insertion

INSERT INTO WAITER VALUES (401,6000, '01-01-2021',301)
INSERT INTO WAITER VALUES (402,5000, '17-6-2021',302)
INSERT INTO WAITER VALUES (403,5500, '30-11-2021',303)
INSERT INTO WAITER VALUES (404,6500, '05-12-2021',304)
INSERT INTO WAITER VALUES (405,5000, '02-06-2021',305)

SELECT * FROM WAITER

W_ID	W_SALARY	W_HIREDATE	CH_ID
401	6000	01-01-2021	301
402	5000	17-6-2021	302
403	5500	30-11-2021	303
404	6500	05-12-2021	304
405	5000	02-06-2021	305

5 rows returned in 0.01 seconds   CSV Export

DELIVERY_BOY VALUE Insertion

INSERT INTO DELIVERY_BOY VALUES (501, 'REFAT', '12345678910', 7364)
INSERT INTO DELIVERY_BOY VALUES (502, 'SAGOR', '12345678911', 7366)
INSERT INTO DELIVERY_BOY VALUES (503, 'HASIN','12345678912', 7264)
INSERT INTO DELIVERY_BOY VALUES (504, 'RAHAT', '12345678913', 7304)
INSERT INTO DELIVERY_BOY VALUES (505, 'SAJIB', '12345678915', 7354)

SELECT*FROM DELIVERY_BOY

CUSTOMER VALUE Insertion

INSERT INTO CUSTOMER VALUES (500,' SAJID ','100', '12345678911', 'NARSHINDI', 501)
INSERT INTO CUSTOMER VALUES (200, 'KAMAL' , '50' , '12345678912', 'DHAKA' , 502)
INSERT INTO CUSTOMER VALUES (300, 'ANIK' , '50','12345678901', 'SYLHET' , 503)
INSERT INTO CUSTOMER VALUES (400, 'SAAD', '100' , '1234578900', 'KHULNA' , 504)
INSERT INTO CUSTOMER VALUES (100, 'RAMIM',' NULL', '1234578916','BARISHAL' , 505)

SELECT* FROM CUSTOMER

CUSTOMER_INFO VALUE Insertion

INSERT INTO CUSTOMER_INFO VALUES (200, 401)
INSERT INTO CUSTOMER_INFO VALUES (300, 402)
INSERT INTO CUSTOMER_INFO VALUES (400, 403)
INSERT INTO CUSTOMER_INFO VALUES (100, 404)
INSERT INTO CUSTOMER_INFO VALUES (500, 405)

SELECT*FROM CUSTOMER_INFO

DELIVERYBOY_INFO VALUE Insertion

INSERT INTO DELIVERY_BOY_INFO VALUES (501,'0154243557')
INSERT INTO DELIVERY_BOY_INFO VALUES (502,'0174243557')
INSERT INTO DELIVERY_BOY_INFO VALUES (503,'0187243557')
INSERT INTO DELIVERY_BOY_INFO VALUES (504,'0144243557')
INSERT INTO DELIVERY_BOY_INFO VALUES (505,'019743557')

SELECT *FROM DELIVERY_BOY_INFO

MENU VALUE Insertion

INSERT INTO MENU VALUES(01,'PIZZA','120', 501)
INSERT INTO MENU VALUES(02,'FRIED CHICKEN','120', 502)
INSERT INTO MENU VALUES(03,'FRENCH FRY','80', 503)
INSERT INTO MENU VALUES(04,'PATTIS','70', 504)
INSERT INTO MENU VALUES(05,'BURGER','60', 505)

SELECT *FROM MENU

ONLINE_INFO VALUE Insertion

INSERT INTO ONLINE_INFO VALUES(121,01)
INSERT INTO ONLINE_INFO VALUES(122,02)
INSERT INTO ONLINE_INFO VALUES(123,03)
INSERT INTO ONLINE_INFO VALUES(124,04)
INSERT INTO ONLINE_INFO VALUES(125,05)

SELECT * FROM ONLINE_INFO

DML

INSERT
INSERT INTO MANAGER VALUES (106 , 'SAJID KHAN', 23000,'20-01-2020', 7757) SELECT *FROM MANAGER

DELETE

DELETE FROM MANAGER WHERE M_ID = 106;
SELECT *FROM MANAGER

ALTER

UPDATE MANAGER SET SALARY =18000 WHRE M_ID=105
SELECT *FROM MANAGER

Query

1.1 Display manager name who earns more than 20000?

SELECT *FROM MANAGER WHERE SALARY>20000

1.2 Display the name of the manager whose name start with 'N'?

SELECT *FROM MANAGER WHERE NAME LIKE 'N%'

2. CONVERT LOWER CASE OF ALL MANAGER NAMES?

SELECT LOWER(NAME) FROM MANAGER

3. **Write a query to display the MANAGER WHERE SALARY BETWEEN 20000 AND 25000**
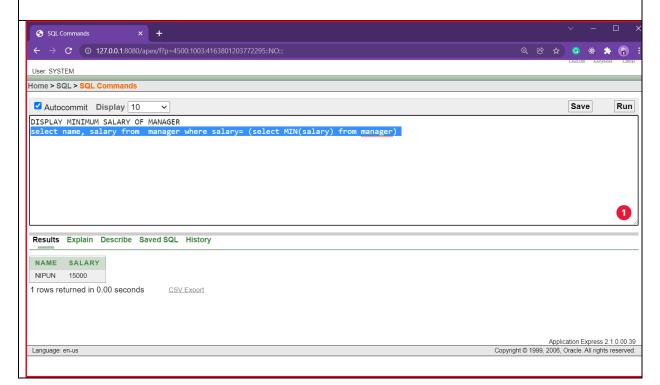
SELECT *FROM MANAGER WHERE SALARY BETWEEN 20000 AND 25000

4.1 DISPLAY MAXIMUM SALARY OF MANAGER

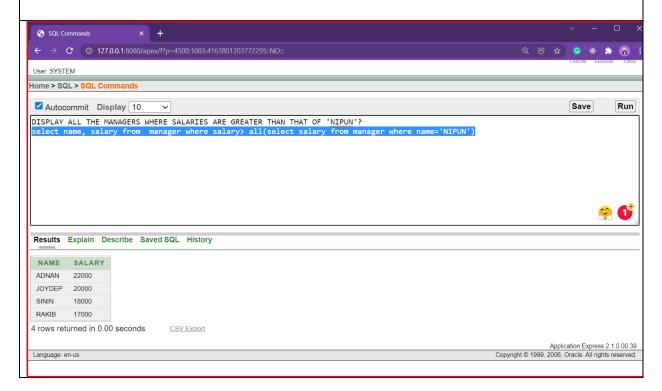select name, salary from manager where salary= (select MAX(salary) from manager)

4.2 DISPLAY MINIMUM SALARY OF MANAGER

select name, salary from manager where salary= (select MIN(salary) from manager)

5. DISPLAY ALL THE MANAGERS WHERE SALARIES ARE GREATER THAN THAT OF 'NIPUN'?

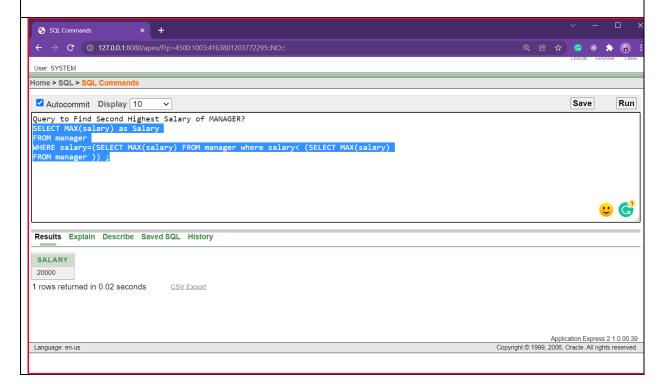select name, salary from manager where salary> all(select salary from manager where name='NIPUN')

6.1 Query to Find Second Highest Salary of MANAGER?

SELECT MAX(salary) as Salary
FROM manager
WHERE salary=(SELECT MAX(salary) FROM manager where salary< (SELECT MAX(salary) FROM manager)) ;
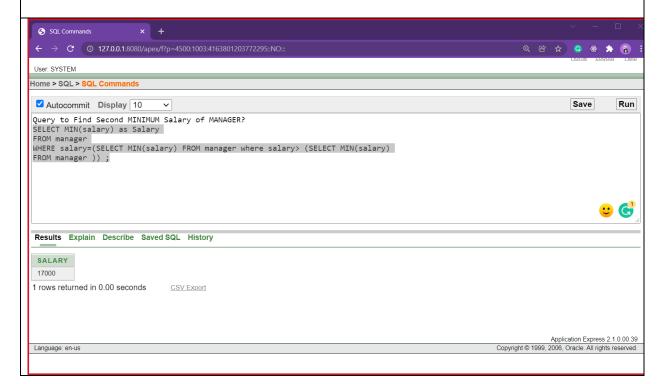
6.2 Query to Find Second MINIMUM Salary of MANAGER?
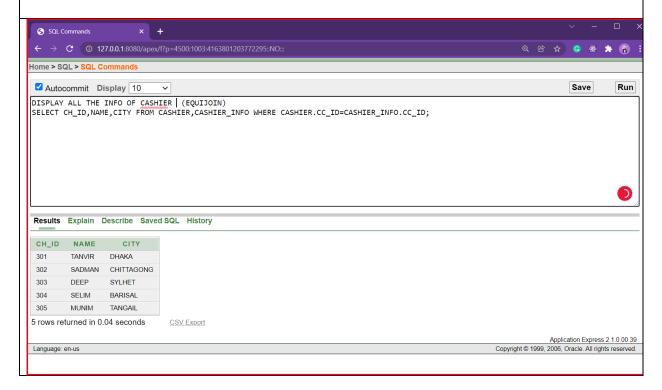
SELECT MIN(salary) as Salary
FROM manager
WHERE salary=(SELECT MIN(salary) FROM manager where salary> (SELECT MIN(salary) FROM manager)) ;
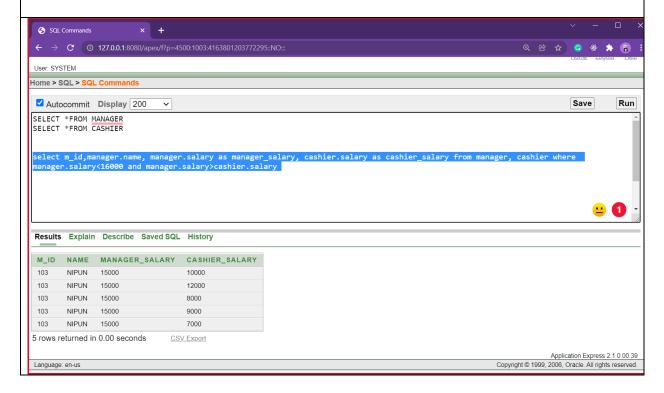
7.1 DISPLAY ALL THE INFO OF CASHIER (EQUI JOIN)

SELECT CH_ID, NAME, CITY FROM CASHIER, CASHIER_INFO WHERE CASHIER.CC_ID=CASHIER_INFO.CC_ID;

7.2 Perform a non-equi join

select m_id, manager.name, manager.salary as manager_salary, cashier.salary as cashier_salary from manager, cashier where manager.salary<16000 and manager.salary>cashier.salary
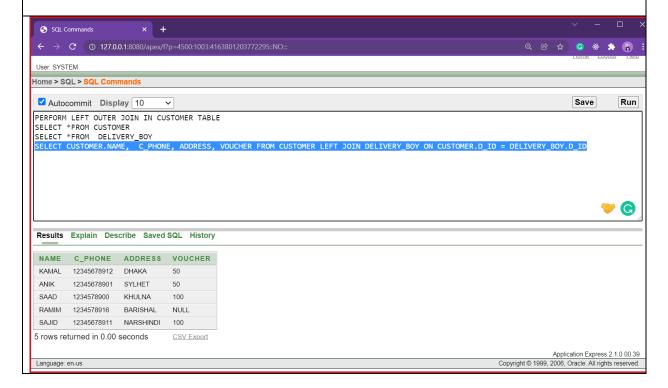
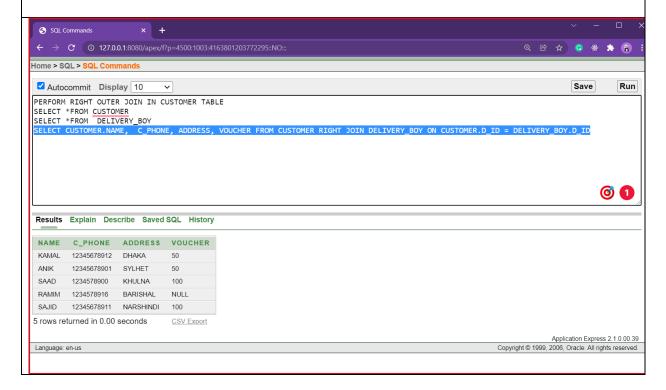# 7.3 PERFORM LEFT OUTER JOIN IN CUSTOMER TABLE

SELECT *FROM CUSTOMER

SELECT *FROM DELIVERY_BOY

SELECT CUSTOMER.NAME, C_PHONE, ADDRESS, VOUCHER FROM CUSTOMER LEFT JOIN DELIVERY_BOY ON CUSTOMER.D_ID = DELIVERY_BOY.D_ID

7.4 PERFORM RIGHT OUTER JOIN IN CUSTOMER TABLE

SELECT CUSTOMER.NAME, C_PHONE, ADDRESS, VOUCHER FROM CUSTOMER RIGHT JOIN DELIVERY_BOY ON CUSTOMER.D_ID = DELIVERY_BOY.D_ID

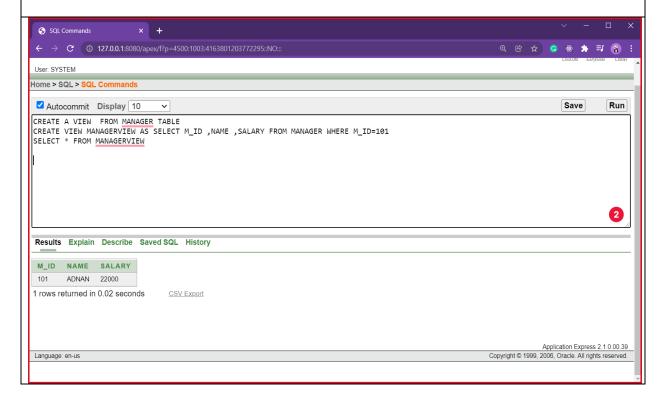## 7.5 PERFORM FULL OUTER JOIN IN CUSTOMER TABLE

SELECT CUSTOMER.NAME, CUSTOMER.D_ID, VOUCHER FROM CUSTOMER FULL OUTER JOIN DELIVERY_BOY ON (CUSTOMER.D_ID=DELIVERY_BOY.D_ID)

8. CREATE A VIEW FROM MANAGER TABLE

CREATE VIEW MANAGERVIEW AS SELECT M_ID, NAME, SALARY FROM MANAGER WHERE M_ID=101
SELECT * FROM MANAGERVIEW

9. CREATE A SEQUENCE FROM MANAGER TABLE

CREATE SEQUENCE MANAGER_SEQ
MINVALUE 10
MAXVALUE 100
START WITH 10
INCREMENT BY 10;

INSERT INTO MANAGER VALUES (MANAGER_SEQ.NEXTVAL,'KABIR',22000,'11-2-2020',7757)
INSERT INTO MANAGER VALUES (106,'SAKIB',25000,'10-1-2020',7757)
SELECT *FROM MANAGER


```
CREATE A SEQUENCE FROM MANAGER TABLE
CREATE SEQUENCE MANAGER_SEQ
MINVALUE 10
MAXVALUE 100
START WITH 10
INCREMENT BY 10;

INSERT INTO MANAGER VALUES (MANAGER_SEQ.NEXTVAL,'KABIR',22000,'11-2-2020',7757)
INSERT INTO MANAGER VALUES (106,'SAKIB',25000,'10-1-2020',7757)
SELECT *FROM MANAGER
```

Results Explain Describe Saved SQL History

M_ID	NAME	SALARY	HIREDATE	TRADE_LICENCE
101	ADNAN	22000	20-01-2020	7757
102	JOYDEP	20000	01-01-2020	7976
103	NIPUN	15000	20-01-2020	7767
104	SININ	18000	12-01-2020	7758
105	RAKIB	17000	20-01-2020	7759
106	SAKIB	25000	10-1-2020	7757
10	KABIR	22000	11-2-2020	7757

7 rows returned in 0.00 seconds   CSV Export

Language: en-us