

# AMERICAN INTERNATIONAL UNIVERSITY-BANGLADESH



**Project Name** : *Food Delivery Management System*

**Course Name** : *Introduction To Database*

**Course Teacher** : *Juena Ahmed Noshin*

**Section** : *“L”*

No	Name	Id
1.	RAHMAN,MD.AKIB UR	19-40279-1
2.	DEB,KABYO	19-40242-1
3.	ZIDAN,MD.MUSHFIQUR RAHMAN	19-39869-1
4.	ALINCON STARLIN HALDER	20-42542-1
5.	NUSRAT TABASSUM	20-43094-1

# Contents

Topic Name	Page Number
Introduction	1
Scenario Description	2
ER Diagram	3
Normalization	5-14
Schema Diagram	15
User Create	16
Table Create	17-27
Data Insertion	28-38
Query Writing	39-41
Relational Algebra	42
Conclusion	43

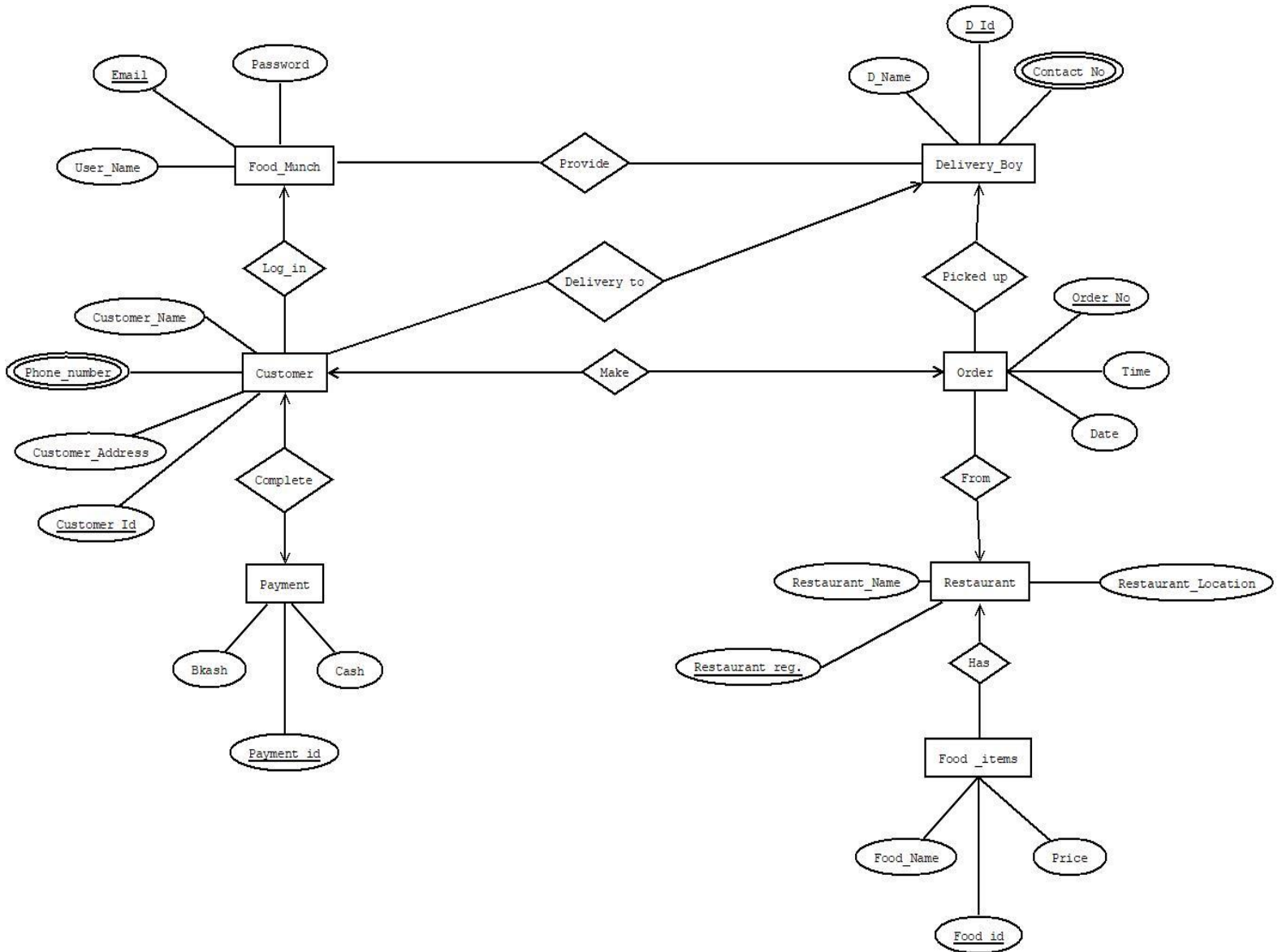
## Introduction

Food delivery management system is a system that allows customers to order food from anywhere and can receive their food at their door steps. An online food delivery system generally has two components a app that allows customers to view the menu and place an order, and an admin interface that enables the restaurant to receive and fulfil customer orders. For our project, we have designed an app which name is FoodMunch. By using this app the food delivery system will be presented. Firstly, customers will log in into the app. After log in they can select foods from their favourite restaurants. When customers confirm their order, delivery boy receives the order and delivers it to the customer.

## Scenario Description

In a food delivery management system a customer can order food by logging into the FoodMunch app. While logging into the app a customer needs to use his or her username and password. A customer is identified by their name, id, phone number and address. The app can be logged in by many customers but a customer can use only one account. After logged into the app customers can order food from restaurants. A customer can make one order at a time. And a order can be made by one customer at a time. There will be order number for each individual order. There are many restaurants available with different names and locations and registration number. One order can be done from one restaurant only. But restaurants can receive many orders. A Restaurant has many food items. Different food items has different name ,food id and price. From these items customers can select their necessary items and order that items. When a customer confirms a order he can show the order no , order time and date. After confirming a order customers need to select their payment system. They can make payment through bKash or cash on delivery system. A customer will pay one time payment. Our FoodMunch app provides a delivery boy . Each delivery boys has their name, id and contact numbers. When customers confirmed their orders, delivery boys picked up their orders and delivers it to the customers. A order can be picked up by only one delivery boy but a delivery boy can picked up many orders . A delivery boy can be deliver food to many customers but a customer can receive the delivery by only one delivery boy.

## ER Diagram



# Normalization :

## **Log in:**

### UNF

Log\_in(Email, User\_name Password ,Customer\_id , Customer\_address, Customer\_name , Phone\_number)

### 1NF

Phone Number is a multi valued attribute.

1.Email, User\_name ,Password ,Customer\_id , Customer\_address, Customer\_name , Phone\_number.

### 2NF

1.Email, User\_name ,Password

2. Customer\_id , Customer\_address, Customer\_name , Phone number

### 3NF

There is no transitive dependency. Relation already in 3NF.

1.Email, User\_name ,Password

2. Customer\_id , Customer\_address, Name , Phone number

### Table Creation

1.Email, User\_name ,Password

2. Customer\_id , Customer\_address, Customer\_name , Phone number, Email

## **MAKE :**

### **UNF**

Make(Customer\_ID, Customer\_Name, Phone\_number, Customer\_address, Order\_no, Time, Date)

### **1NF**

Phone\_number is a multivalued attribute

1. Customer\_ID, Customer\_Name, Phone\_number, Customer\_address, Order\_no, Time, Date.

### **2NF**

1. Customer\_Id, Customer\_Name, Phone\_number, Customer\_address.

2. Order\_no, Time, Date.

### **3NF**

There is no transitive dependency. Relation is already in 3NF.

1. Customer\_Id, Customer\_Name, Phone\_number, Customer\_address.

2. Order\_no, Time, Date.

### **Table creation:**

1. Customer\_Id, Customer\_Name, Phone\_number, Customer\_address,
2. Order\_no, Time, Date, Customer\_Id

## **From :**

### **UNF**

From(Order\_no ,Time,Date, Restaurant\_reg., Restaurant\_Name , Location )

### **1NF**

There is no multi valued attribute. Relation already in 1NF.

1. Order\_no , Time ,Date , Restaurant\_reg., Restaurant\_Name , Location

### **2NF**

1. Order\_no , Time ,Date
2. Restaurant\_reg., Restaurant\_Name , Location

### **3NF**

There is no transitive dependency. Relation already in 3NF.

1. Order\_no , Time ,Date
2. Restaurant\_reg., Restaurant\_Name , Location

### **Table Creation**

1. Order\_no , Time ,Date, Restaurant\_reg
2. Restaurant\_reg., Restaurant\_Name , Location



## **Has :**

### **UNF**

Has(Restaurant\_reg. , Restaurant\_name, Location, Food\_name, Price ,Food\_id)

### **1NF**

There is no multi valued attribute. Relation already in 1NF.

1. Restaurant\_reg., Restaurant\_name, Location, Food\_Name, Price ,Food\_id

### **2NF**

1. Restaurant\_reg. , Restaurant\_name, Location
2. Food\_id , Food\_Name, Price

### **3NF**

There is no transitive dependency. Relation already in 3NF.

1. Restaurant\_Reg. , Restaurant\_name, Location
2. Food\_id , Food\_Name, Price

### **Table Creation**

1. Restaurant\_Reg. , Restaurant\_Name, Location
2. Food\_id , Food\_Name, Price, Restaurant\_Reg

## **Provide :**

### **UNF**

Provide (Email, User\_name, Password , D\_Id, D\_Name, Contract\_No.)

### **1NF**

There is no multi valued attribute. Relation already in 1NF.

1. Email, User\_name Password ,Customer\_id , Address, Name , Phone number

### **2NF**

1. Email, User\_name, Password
2. D\_Id, D\_Name, Contract\_No

### **3NF**

There is no transitive dependency. Relation already in 3NF.

1. Email, User\_name, Password
2. D\_Id, D\_Name, Contract\_No

### **Table Creation**

1. Email, User\_name ,Password
2. D\_Id, D\_Name, Contract No
3. Email, D\_Id

## **PICKED UP:**

### **UNF:**

Picked up(Order\_no,Time,Date, D\_id,D\_Name,Contact\_no)

### **1NF:**

Contact\_no is a multivalued attribute .

1. Order\_no,Time,Date,D\_id,D\_Name,Contact\_no.

### **2NF:**

1. Order\_no,Time,Date.
2. D\_id,D\_Name,Contact\_no.

### **3NF:**

There is no transitive dependency.Relation is already in 3NF.

1. Order\_no,Time,Date.
2. D\_id,D\_Name,Contact\_no.

### **Table creation:**

1. Order\_no,Time,Date,D\_id.
3. D\_id,D\_Name,Contact\_no.

## **DELIVERY TO:**

### **UNF:**

Delivery to(Customer\_ID, Customer\_Name,Phone\_number, Customer\_address,  
D\_id,D\_Name,Contact\_no)

### **1NF:**

Contact\_no is a multivalued attribute .

1. Customer\_ID, Customer\_Name,Phone\_number, Customer\_address,  
D\_id, D\_Name, Contact\_no.

### **2NF:**

1. Customer\_ID, Customer\_Name,Phone\_number, Customer\_address.
2. D\_id,D\_Name,Contact\_no.

### **3NF:**

There is no transitive dependency.Relation is already in 3NF.

- 1.Customer\_ID, Customer\_Name,Phone\_number, Customer\_address.
2. D\_id,D\_Name,Contact\_no.

### **Table creation:**

- 1.Customer\_ID,Name,Phone\_number, Customer\_address, D\_id.
2. D\_id,D\_Name,Contact\_no.

## **Complete :**

### **UNF**

Complete(Customer\_id,Customer\_name,Phone\_number,Address,Payment\_id,  
Bkash, Cash )

### **1NF**

Phone\_number is a multivalued attribute.

1. Customer\_id,Customer\_name,Phone\_number,Address,Payment\_id, Bkash, Cash

### **2NF**

1. Customer\_id,Customer\_name,Phone\_number,Address
2. Payment\_id, Bkash, Cash

### **3NF**

There is no transitive dependency. Relation already in 3NF.

1. Customer\_id,Customer\_name,Phone\_number,Address
2. Payment\_id, Bkash, Cash

### **Table Creation**

1. Customer\_id,Customer\_name,Phone\_number,Address
2. Payment\_id, Bkash, Cash, Customer\_id

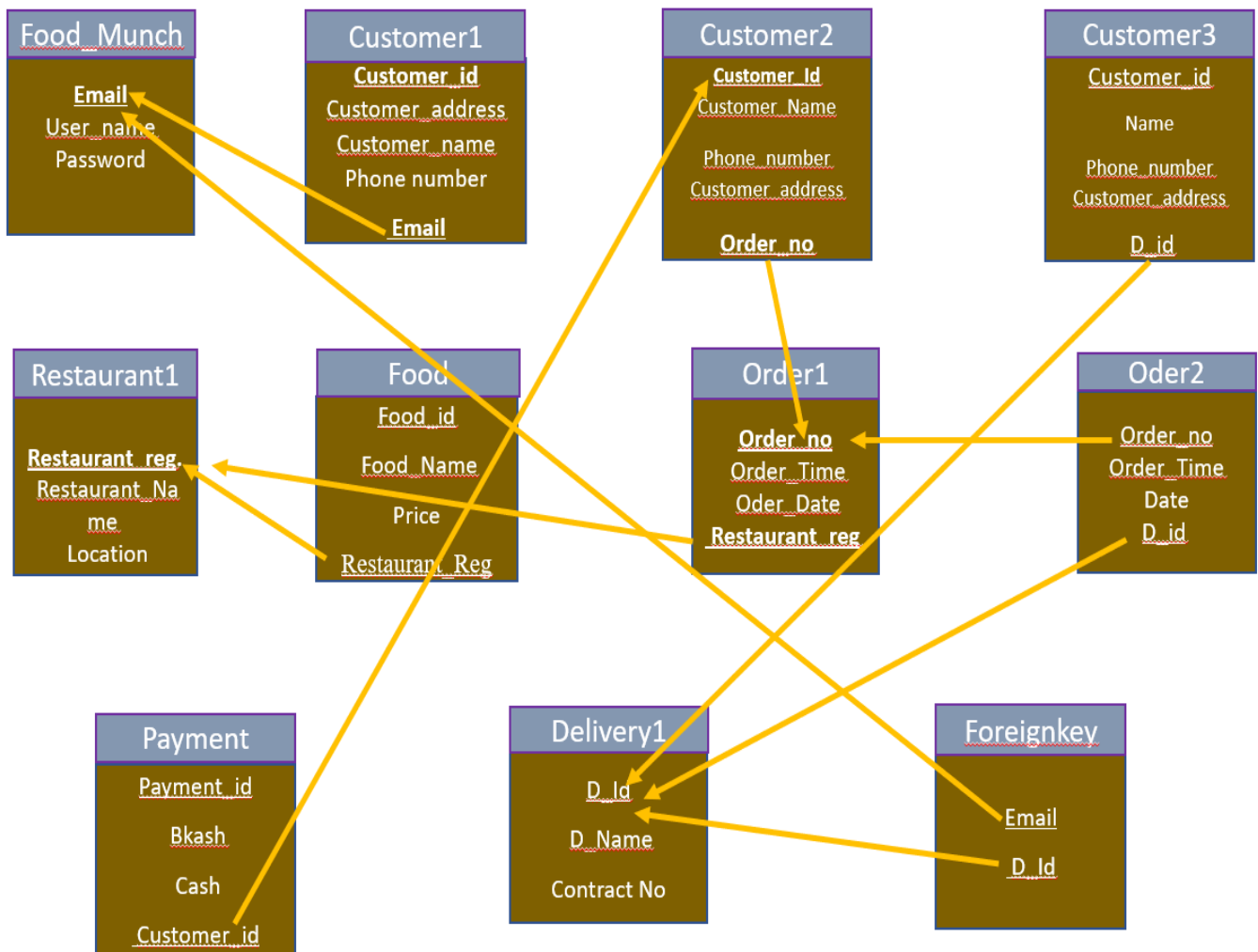
## Temporary Tables :

1. Email, User\_name ,Password
2. Customer\_id , Customer\_address, Customer\_name , Phone number, Email
3. Customer Id, Customer\_Name,Phone\_number, Customer\_address,Order no.
4. ~~Order\_no,Time,Date.~~
5. Order no , Time ,Date, Restaurant reg
6. Restaurant reg., Restaurant\_Name , Location
7. ~~Restaurant\_Reg. , Restaurant\_Name, Location~~
8. Food id , Food\_Name, Price, Restaurant\_Reg.
9. ~~Email, User\_name ,Password~~
10. D\_Id, D\_Name, Contract No
11. Email, D\_Id
12. Order no, Time, Date, D\_id.
13. ~~D\_id, D\_Name, Contact\_no.~~
14. Customer ID, Customer\_name, Phone\_number, Customer\_address, D\_id.
15. ~~D\_id, D\_Name, Contact\_no.~~
16. Customer\_id, Customer\_name, Phone\_number, Address
17. Payment\_id, Bkash, Cash, Customer id

## **Final Tables :**

1. Email, User\_name ,Password
2. Customer\_id , Customer\_address, Customer\_name , Phone number, Email
3. Customer\_Id, Customer\_Name,Phone\_number, Customer\_address,Order\_no.
4. Order\_Name , Time ,Date, Restaurant\_reg
5. Restaurant\_reg., Restaurant\_Name , Location
6. Food\_id , Food\_Name, Price , Restaurant\_Reg
7. D\_Id, D\_Name, Contract No
8. Email, D\_Id
9. Order\_no,Time,Date,D\_id.
- 10.Customer\_ID, Customer\_name,Phone\_number, Customer\_address, D\_id.
- 11.Payment\_id, Bkash, Cash, Customer\_id

# Schema Diagram





# Create user

**ORACLE** Database Express Edition

Home Logout ?

User: SYSTEM

Home > SQL > **SQL Commands**

☒ Autocommit   Display 10   **Save**   **Run**

Create user FoodMunch identified by abcd;  
Grant connect, create view, resource, unlimited tablespace to FoodMunch;  
  
ALTER USER FoodMunch DEFAULT TABLESPACE USERS;  
  
ALTER USER FoodMunch TEMPORARY TABLESPACE TEMP;

**Results** Explain Describe Saved SQL History

Statement processed.

0.02 seconds

# Table Creation

1. Create table Food\_Munch (Email varchar (10)primary key , User\_name char (12) , password varchar (10)) ;

ORACLE Database Express Edition

User: FOODMUNCH

Home > SQL > SQL Commands

☒ Autocommit Display 10 Save Run

DESC Food\_Munch;

Results Explain Describe Saved SQL History

Object Type TABLE Object FOOD\_MUNCH

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
FOOD_MUNCH	EMAIL	Varchar2	10	-	-	1	-	-	-
	USER_NAME	Char	12	-	-	-	✓	-	-
	PASSWORD	Varchar2	10	-	-	-	✓	-	-
1 - 3									

Language: en-us

Activate Windows  
Go to Settings to activate Windows.

Application Express 2.1.0.00.39  
Copyright © 1999, 2008, Oracle. All rights reserved.

2. Create table Customer1 (Customer\_id varchar (6)primary key , Customer\_address varchar (12) , Customer\_name char (10) , Phone\_number number (10), Email varchar (10)) ;  
Alter table Customer1 add constraint ff1 foreign key (Email) references Food\_Munch (Email);

ORACLE Database Express Edition

User: FOODMUNCH

Home > SQL > [SQL Commands](#)

☒ Autocommit Display 10 Save Run

DESC Customer1;

Results Explain **Describe** Saved SQL History

Object Type TABLE Object CUSTOMER1

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMER1	CUSTOMER_ID	Varchar2	6	-	-	1	-	-	-
	CUSTOMER_ADDRESS	Varchar2	12	-	-	-	✓	-	-
	CUSTOMER_NAME	Char	10	-	-	-	✓	-	-
	PHONE_NUMBER	Number	-	10	0	-	✓	-	-
	EMAIL	Varchar2	10	-	-	-	✓	-	-

1 - 5

Language: en-us

Activate Windows  
Go to Settings to activate Windows.  
Application Express 2.1.0.00.39  
Copyright © 1999, 2006, Oracle. All rights reserved.

3. Create table resturant1(Resturant\_reg number(10)primary key,Resturant\_name varchar2(20),Location varchar2(20));

ORACLE Database Express Edition

User: FOODMUNCH

Home > SQL > SQL Commands

☒ Autocommit Display 10 Save Run

```
DESC resturant1;
```

Results Explain Describe Saved SQL History

Object Type TABLE Object RESTURANT1

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
RESTURANT1	RESTURANT_REG	Number	-	10	0	1	-	-	-
	RESTURANT_NAME	Varchar2	20	-	-	-	✓	-	-
	LOCATION	Varchar2	20	-	-	-	✓	-	-
1 - 3									

Language: en-us

Activate Windows Application Express 2.1.0.00.39  
Go to Settings to activate Windows.

4. Create table Order1(Order\_no number(12)primary key, Order\_time varchar2(20),Order\_Date varchar2(10),Resturant\_reg number(10));  
alter table Order1 add constraint f3 foreign key (Resturant\_reg) references  
resturant1 (Resturant\_reg);

ORACLE Database Express Edition

User: FOODMUNCH

Home > SQL > SQL Commands

☒ Autocommit Display 10

Save Run

DESC Order1;

Results Explain Describe Saved SQL History

Object Type TABLE Object ORDER1

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORDER1	ORDER_NO	Number	-	12	0	1	-	-	-
	ORDER_TIME	Varchar2	20	-	-	-	✓	-	-
	ORDER_DATE	Varchar2	10	-	-	-	✓	-	-
	RESTURANT_REG	Number	-	10	0	-	✓	-	-

1 - 4

Language: en-us

Activate Windows Application Express 2.1.0.00.39  
Go to Settings to activate Windows.

5. Create table Customer2 (Customer\_id varchar (6)primary key , Customer\_address varchar (12) , Customer\_name char (10) , Phone\_number number (10), Order\_no number(12));  
Alter table Customer2 add constraint f4 foreign key (Order\_no) references Order1 (Order\_no);

ORACLE Database Express Edition

User: FOODMUNCH

Home > SQL > SQL Commands

☒ Autocommit Display 10 Save Run

DESC Customer2;

Results Explain Describe Saved SQL History

Object Type: TABLE Object: CUSTOMER2

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMER2	CUSTOMER_ID	Varchar2	6	-	-	1	-	-	-
	CUSTOMER_ADDRESS	Varchar2	12	-	-	-	✓	-	-
	CUSTOMER_NAME	Char	10	-	-	-	✓	-	-
	PHONE_NUMBER	Number	-	10	0	-	✓	-	-
	ORDER_NO	Number	-	12	0	-	✓	-	-
1 - 5									

Language: en-us

Activate Windows Application Express 2.1.0.00.39  
Go to Settings to activate Windows.

6. Create table Delivery1(D\_id varchar (10)primary key, D\_Name varchar2(20),Contract\_no number(11));

ORACLE Database Express Edition

User: FOODMUNCH

Home > SQL > SQL Commands

☒ Autocommit Display 10 Save Run

DESC Delivery1;

Results Explain Describe Saved SQL History

Object Type TABLE Object PAYMENT

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PAYMENT	PAYMENT_ID	Varchar2	15	-	-	1	-	-	-
	BKASH	Varchar2	10	-	-	-	✓	-	-
	CASH	Varchar2	10	-	-	-	✓	-	-
	CUSTOMER_ID	Varchar2	10	-	-	-	✓	-	-
1 - 4									

Language: en-us

Activate Windows  
Go to Settings to activate Windows.  
Application Express 2.1.0.00.39  
Copyright © 1999, 2008, Oracle. All rights reserved.

7.Create table Customer3 (Customer\_id varchar (6)primary key ,  
Customer\_address varchar (12) , Customer\_name char (10) , Phone number (10),  
D\_id varchar2 (10)) ;

alter table Customer3 add constraint f1 foreign key (D\_id) references Delivery1  
(D\_id);

ORACLE Database Express Edition

User: FOODMUNCH

Home > SQL > SQL Commands

☒ Autocommit Display 10 Save Run

DESC Customer3;

Results Explain Describe Saved SQL History

Object Type TABLE Object CUSTOMER3

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMER3	CUSTOMER_ID	Varchar2	6	-	-	1	-	-	-
	CUSTOMER_ADDRESS	Varchar2	12	-	-	-	✓	-	-
	CUSTOMER_NAME	Char	10	-	-	-	✓	-	-
	PHONE	Number	-	10	0	-	✓	-	-
	D_ID	Varchar2	10	-	-	-	✓	-	-

1 - 5

Language: en-us

Activate Windows  
Go to Settings to activate Windows.  
Application Express 2.1.0.00.39  
Copyright © 1999, 2008, Oracle. All rights reserved.



8.Create table food(food\_id number(10)primary key ,food\_name  
varchar2(20),price number(7),Resturant\_reg number(10));

alter table food add constraint f2 foreign key (Resturant\_reg) references  
resturant1 (Resturant\_reg);

ORACLE Database Express Edition

User: FOODMUNCH

Home > SQL > SQL Commands

☒ Autocommit Display 10 Save Run

DESC Food;

Results Explain Describe Saved SQL History

Object Type TABLE Object FOOD

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
FOOD	FOOD_ID	Number	-	10	0	1	-	-	-
	FOOD_NAME	Varchar2	20	-	-	-	✓	-	-
	PRICE	Number	-	7	0	-	✓	-	-
	RESTURANT_REG	Number	-	10	0	-	✓	-	-

1 - 4

Language: en-us

Activate Windows Application Express 2.1.0.00.39  
Go to Settings to activate Windows.

9.Create table Order2(Order\_no number(12)primary key, Order\_time  
varchar2(20),Order\_Date varchar2(10),D\_id varchar(10));

alter table Order2 add constraint f5 foreign key (Order\_no) references Order1  
(Order\_no);

alter table Order2 add constraint f6 foreign key (D\_id) references Delivery1  
(D\_id);

ORACLE Database Express Edition

User: FOODMUNCH

Home > SQL > SQL Commands

☒ Autocommit Display 10 Save Run

DESC Order2;

Results Explain Describe Saved SQL History

Object Type TABLE Object ORDER2

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORDER2	ORDER_NO	Number	-	12	0	1	-	-	-
	ORDER_TIME	Varchar2	20	-	-	-	✓	-	-
	ORDER_DATE	Varchar2	10	-	-	-	✓	-	-
	D_ID	Varchar2	10	-	-	-	✓	-	-

1 - 4

Language: en-us

Activate Windows  
Go to Settings to activate Windows.

Application Express 2.1.0.00.39  
Copyright © 1999, 2006, Oracle. All rights reserved.

10.Create table Payment(Payment\_id varchar2(15)primary key , Bkash  
varchar2(10),Cash varchar2(10), Customer\_id varchar2(10));

alter table Payment add constraint ffg foreign key (Customer\_id) references  
Customer1(Customer\_id);

ORACLE Database Express Edition

User: FOODMUNCH

Home > SQL > SQL Commands

☒ Autocommit Display 10 Save Run

DESC Payment;

Results Explain Describe Saved SQL History

Object Type TABLE Object PAYMENT

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PAYMENT	PAYMENT_ID	Varchar2	15	-	-	1	-	-	-
	BKASH	Varchar2	10	-	-	-	✓	-	-
	CASH	Varchar2	10	-	-	-	✓	-	-
	CUSTOMER_ID	Varchar2	10	-	-	-	✓	-	-
1 - 4									

Language: en-us

Activate Windows Application Express 2.1.0.00.39  
Go to Settings to activate Windows.

11.Create table Foreignkeytable(Email varchar (10) , D\_id varchar (10));

alter table Foreignkeytable add constraint f8 foreign key (Email) references Food\_Munch (Email);

ORACLE Database Express Edition

User: FOODMUNCH

Home > SQL > SQL Commands

☒ Autocommit Display 10 Save Run

DESC Foreignkeytable;

Results Explain Describe Saved SQL History

Object Type TABLE Object FOREIGNKEYTABLE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
FOREIGNKEYTABLE	EMAIL	Varchar2	10	-	-	-	✓	-	-
	D_ID	Varchar2	10	-	-	-	✓	-	-
									1-2

Language: en-us

Activate Windows Application Express 2.1.0.00.39  
Go to Settings to activate Windows.

# Data Insertion

## For table 1:

insert into Food\_Munch values('K@gmail','Akib','re457');

insert into Food\_Munch values('R@gmail','kabyo','re458');

insert into Food\_Munch values('N@gmail','Nusrat','re459');

insert into Food\_Munch values('A@gmail','Alincon','re460');

insert into Food\_Munch values('M@gmail','Musfiq','re461');

The screenshot displays the Oracle Database Express Edition web interface. The top navigation bar includes 'Home', 'Logout', and 'Help' links. The main content area is titled 'SQL Commands' and contains a text editor with the following SQL script:

```
Create table Food_Munch (Email varchar (10)primary key , User_name char (12) , password varchar (10)) ;

insert into Food_Munch values('K@gmail','Akib','re457');
insert into Food_Munch values('R@gmail','kabyo','re458');
insert into Food_Munch values('N@gmail','Nusrat','re459');
insert into Food_Munch values('A@gmail','Alincon','re460');
insert into Food_Munch values('M@gmail','Musfiq','re461');

select * From Food_Munch ;
```

Below the editor, the 'Results' tab is active, showing a table with 5 rows of data:

EMAIL	USER_NAME	PASSWORD
K@gmail	Akib	re457
R@gmail	kabyo	re458
N@gmail	Nusrat	re459
A@gmail	Alincon	re460
M@gmail	Musfiq	re461

At the bottom of the results section, it states '5 rows returned in 0.90 seconds' and provides a 'CSV Export' link. The footer of the interface includes 'Language: en-us' and a watermark for 'Activate Windows'.

## For table 2:

Create sequence Customer1\_seqe increment by 2 start with 1 maxvalue 10 nocycle nocache;

insert into Customer1 values(Customer1\_seqe.nextval,'Mirpur','Akib','458856','K@gmail');

insert into Customer1

values(Customer1\_seqe.nextval,'Dhanmondi','kabyo','458857','R@gmail');

insert into Customer1 values(Customer1\_seqe.nextval,'Badda','Nusrat','458858','N@gmail');

insert into Customer1 values(Customer1\_seqe.nextval,'Uttara','Alincon','458859','A@gmail');

insert into Customer1 values(Customer1\_seqe.nextval,'Uttara','Musfiq','458860','M@gmail');

The screenshot displays the Oracle Database Express Edition web interface. At the top, it says "ORACLE Database Express Edition" and "User: FOODMUNCH". The main area is titled "Home > SQL > SQL Commands". Below this, there's a text area for SQL commands with a "Save" button and a "Run" button. The commands entered are:

```
Create table Customer1 (Customer_id varchar (6)primary key , Customer_address varchar (12) , Customer_name char (10) , Phone_number number (10), Email varchar (10)) ;
Alter table Customer1 add constraint fb foreign key (Email) references Food_Munch (Email);
Create sequence Customer1_seqe increment by 2 start with 1 maxvalue 10 nocycle nocache;
insert into Customer1 values(Customer1_seqe.nextval,'Mirpur','Akib','458856','K@gmail');
insert into Customer1 values(Customer1_seqe.nextval,'Dhanmondi','kabyo','458857','R@gmail');
insert into Customer1 values(Customer1_seqe.nextval,'Badda','Nusrat','458858','N@gmail');
insert into Customer1 values(Customer1_seqe.nextval,'Uttara','Alincon','458859','A@gmail');
insert into Customer1 values(Customer1_seqe.nextval,'Uttara','Musfiq','458860','M@gmail');
select * From Customer1;
```

Below the SQL editor, there's a "Results" tab selected, showing a table with 5 rows. The table has columns: CUSTOMER\_ID, CUSTOMER\_ADDRESS, CUSTOMER\_NAME, PHONE\_NUMBER, and EMAIL. The data is as follows:

CUSTOMER_ID	CUSTOMER_ADDRESS	CUSTOMER_NAME	PHONE_NUMBER	EMAIL
1	Mirpur	Akib	458856	K@gmail
3	Dhanmondi	kabyo	458857	R@gmail
5	Badda	Nusrat	458858	N@gmail
7	Uttara	Alincon	458859	A@gmail
9	Uttara	Musfiq	458860	M@gmail

Below the table, it says "5 rows returned in 0.09 seconds" and "CSV Export". At the bottom right, there's a watermark "Activate Windows" and "Application Express 2.1.0.00.39".

### For table 3:

Create sequence resturant1\_seq increment by 2 start with 10 maxvalue 20  
nocycle nocache;

insert into resturant1 values(resturant1\_seq.nextval,'Khanas','Bashundhara');

insert into resturant1 values(resturant1\_seq.nextval,'Jafran','Bashundhara');

insert into resturant1 values(resturant1\_seq.nextval,'KacchiBahi','Bashundhara');

insert into resturant1 values(resturant1\_seq.nextval,'Dhakafood','Bashundhara');

insert into resturant1 values(resturant1\_seq.nextval,'Mouchak','Bashundhara');

The screenshot shows the Oracle Database Express Edition web interface. The top bar indicates the user is 'FOODMUNCH'. The main area is titled 'SQL Commands' and contains a text editor with the following SQL script:

```
create table resturant1(Resturant_reg number(10)primary key,Resturant_name varchar2(20),Location varchar2(20));
Create sequence resturant1_seq increment by 2 start with 10 maxvalue 20 nocycle nocache;
insert into resturant1 values(resturant1_seq.nextval,'Khanas','Bashundhara');
insert into resturant1 values(resturant1_seq.nextval,'Jafran','Bashundhara');
insert into resturant1 values(resturant1_seq.nextval,'KacchiBahi','Bashundhara');
insert into resturant1 values(resturant1_seq.nextval,'Dhakafood','Bashundhara');
insert into resturant1 values(resturant1_seq.nextval,'Mouchak','Bashundhara');
select * from resturant1;
```

Below the editor, the 'Results' tab is active, displaying a table with 5 rows of data:

RESTURANT_REG	RESTURANT_NAME	LOCATION
10	Khanas	Bashundhara
12	Jafran	Bashundhara
14	KacchiBahi	Bashundhara
16	Dhakafood	Bashundhara
18	Mouchak	Bashundhara

At the bottom of the results section, it states '5 rows returned in 0.03 seconds' and provides a 'CSV Export' link. The footer of the interface includes 'Language: en-us' and 'Application Express 2.1.0.00.39 Copyright © 1999, 2008, Oracle. All rights reserved.'

### For table 4:

Create sequence Order1\_seqq increment by 2 start with 20 maxvalue 100 nocycle  
nocache;

insert into Order1 values(Order1\_seqq.nextval,'12.30','11-04-21','10');

insert into Order1 values(Order1\_seqq.nextval,'12.45','11-04-21','12');

insert into Order1 values(Order1\_seqq.nextval,'12.55','11-04-21','14');

insert into Order1 values(Order1\_seqq.nextval,'1.30','12-04-21','16');

The screenshot shows the Oracle Database Express Edition web interface. The top navigation bar includes 'Home', 'Logout', and 'Help' links. The user is logged in as 'FOODMUNCH'. The breadcrumb trail is 'Home > SQL > SQL Commands'. The main area contains a text editor with the following SQL commands:

```
Create table Order1(Order no number(12)primary key, Order time varchar2(20),Order Date varchar2(10),Resturant_reg number(10));
alter table Order1 add constraint f3 foreign key (Resturant_reg) references resturant1 (Resturant_reg);

Create sequence Order1_seqq increment by 2 start with 20 maxvalue 100 nocycle nocache;

insert into Order1 values(Order1_seqq.nextval,'12.30','11-04-21','10');
insert into Order1 values(Order1_seqq.nextval,'12.45','11-04-21','12');
insert into Order1 values(Order1_seqq.nextval,'12.55','11-04-21','14');
insert into Order1 values(Order1_seqq.nextval,'1.30','12-04-21','16');
insert into Order1 values(Order1_seqq.nextval,'12.30','13-04-21','18');

select * From Order1;
```

Below the editor, the 'Results' tab is active, displaying a table with 5 rows of data:

ORDER_NO	ORDER_TIME	ORDER_DATE	RESTURANT_REG
20	12.30	11-04-21	10
28	12.30	13-04-21	18
22	12.45	11-04-21	12
24	12.55	11-04-21	14
26	1.30	12-04-21	16

Below the table, it states '5 rows returned in 0.03 seconds' and provides a 'CSV Export' link. The bottom status bar shows 'Language: en-us' and 'Copyright © 1999, 2006, Oracle. All rights reserved.'



## For table 5:

Create sequence Customer2\_seqq increment by 2 start with 30 maxvalue 200 nocycle nocache;

insert into Customer2 values(Customer2\_seqq.nextval,'Mirpur','Rahat','58794','20');

insert into Customer2 values(Customer2\_seqq.nextval,'Mirpur','Jibon','58795','22');

insert into Customer2 values(Customer2\_seqq.nextval,'Badda','Ridoy','58796','24');

insert into Customer2 values(Customer2\_seqq.nextval,'Motijil','Kamal','587874','26');

insert into Customer2 values(Customer2\_seqq.nextval,'Mirpur','Pranto','587987','28');

The screenshot shows the Oracle Database Express Edition interface. The top bar indicates the user is 'FOODMUNCH'. The main area displays a series of SQL commands executed in the 'SQL Commands' tab. The commands create a table 'Customer2' with columns 'Customer\_id', 'Customer\_address', 'Customer\_name', 'Phone\_number', and 'Order\_no'. It then creates a sequence 'Customer2\_seqq' and inserts five rows of data. The 'Results' tab shows the output of the 'select \* from Customer2;' command as a table with 5 rows. The bottom status bar shows the language is 'en-us' and the application version is '2.1.0.00.39'.

```
Create table Customer2 (Customer_id varchar (6)primary key , Customer_address varchar (12) , Customer_name char (10) , Phone_number number (10), Order_no number(12));
Alter table Customer2 add constraint f4 foreign key (Order_no) references Order1 (Order_no);

Create sequence Customer2_seqq increment by 2 start with 30 maxvalue 200 nocycle nocache;

insert into Customer2 values(Customer2_seqq.nextval,'Mirpur','Rahat','58794','20');
insert into Customer2 values(Customer2_seqq.nextval,'Mirpur','Jibon','58795','22');
insert into Customer2 values(Customer2_seqq.nextval,'Badda','Ridoy','58796','24');
insert into Customer2 values(Customer2_seqq.nextval,'Motijil','Kamal','587874','26');
insert into Customer2 values(Customer2_seqq.nextval,'Mirpur','Pranto','587987','28');

select * From Customer2;
```

CUSTOMER_ID	CUSTOMER_ADDRESS	CUSTOMER_NAME	PHONE_NUMBER	ORDER_NO
30	Mirpur	Rahat	58794	20
32	Mirpur	Jibon	58795	22
34	Badda	Ridoy	58796	24
36	Motijil	Kamal	587874	26
38	Mirpur	Pranto	587987	28

5 rows returned in 0.09 seconds [CSV Export](#)

Language: en-us

127.0.0.1:8080/apex/?p=4500:1000:1093472858161459

## For table 6:

Create sequence Delivery1\_seqq increment by 2 start with 40 maxvalue 200 nocycle nocache;

insert into Delivery1 values(Delivery1\_seqq.nextval,'polash','012545');

insert into Delivery1 values(Delivery1\_seqq.nextval,'pias','012544');

insert into Delivery1 values(Delivery1\_seqq.nextval,'pial','012547');

insert into Delivery1 values(Delivery1\_seqq.nextval,'pijus','013545');

insert into Delivery1 values(Delivery1\_seqq.nextval,'Riyad','012845');

The screenshot displays the Oracle Database Express Edition web interface. At the top, it says "ORACLE Database Express Edition" and "User: FOODMUNCH". The main area shows a SQL command window with the following text:

```
Create table Delivery1(D_id varchar (10)primary key, D_Name varchar2(20),Contract_no number(11));
Create sequence Delivery1_seqq increment by 2 start with 40 maxvalue 200 nocycle nocache;

insert into Delivery1 values(Delivery1_seqq.nextval,'polash','012545');
insert into Delivery1 values(Delivery1_seqq.nextval,'pias','012544');
insert into Delivery1 values(Delivery1_seqq.nextval,'pial','012547');
insert into Delivery1 values(Delivery1_seqq.nextval,'pijus','013545');
insert into Delivery1 values(Delivery1_seqq.nextval,'Riyad','012845');

select * From Delivery1;
```

Below the command window, the "Results" tab is active, showing a table with 5 rows:

D_ID	D_NAME	CONTRACT_NO
40	polash	12545
42	pias	12544
44	pial	12547
46	pijus	13545
48	Riyad	12845

Below the table, it says "5 rows returned in 0.07 seconds" and provides a "CSV Export" link. At the bottom right, there is a watermark for "Activate Windows" and "Application Express 2.1.0.00.39".

## For table 7:

Create sequence Customer3\_seqq increment by 2 start with 50 maxvalue 200 nocycle nocache;

insert into Customer3 values(Customer3\_seqq.nextval, 'Gulshan1','jibon','0179180','40');

insert into Customer3 values(Customer3\_seqq.nextval, 'Bashundhara','Rahul','0179170','42');

insert into Customer3 values(Customer3\_seqq.nextval, 'Bashundhara','Uthso','01791878','44');

insert into Customer3 values(Customer3\_seqq.nextval, 'Bashundhara','Turjo','0179174','46');

insert into Customer3 values(Customer3\_seqq.nextval, 'Bashundhara','fahim','0177180','48');

The screenshot shows the Oracle Database Express Edition interface. The user is 'FOODMUNCH'. The SQL Commands window contains the following commands:

```
Create table Customer3 (Customer_id varchar (6)primary key , Customer_address varchar (12) , Customer_name char (10) , Phone number (10), D_id varchar2 (10)) ;
alter table Customer3 add constraint f1 foreign key (D_id) references Delivery1 (D_id);

Create sequence Customer3_seqq increment by 2 start with 50 maxvalue 200 nocycle nocache;

insert into Customer3 values(Customer3_seqq.nextval, 'Gulshan1','jibon','0179180','40');
insert into Customer3 values(Customer3_seqq.nextval, 'Bashundhara','Rahul','0179170','42');
insert into Customer3 values(Customer3_seqq.nextval, 'Bashundhara','Uthso','01791878','44');
insert into Customer3 values(Customer3_seqq.nextval, 'Bashundhara','Turjo','0179174','46');
insert into Customer3 values(Customer3_seqq.nextval, 'Bashundhara','fahim','0177180','48');

select * From Customer3;
```

The Results window shows the output of the select statement:

CUSTOMER_ID	CUSTOMER_ADDRESS	CUSTOMER_NAME	PHONE	D_ID
50	Gulshan1	jibon	179180	40
52	Bashundhara	Rahul	179170	42
54	Bashundhara	Uthso	1791878	44
56	Bashundhara	Turjo	179174	46
58	Bashundhara	fahim	177180	48

5 rows returned in 0.08 seconds. [CSV Export](#)

Language: en-us

Activate Windows. Application Express 2.1.0.00.39. Copyright © 1999, 2008, Oracle. All rights reserved.

## For table 8:

Create sequence food\_seqq increment by 2 start with 60 maxvalue 200 nocycle nocache;

insert into food values(food\_seqq.nextval,'Burger','300','10');

insert into food values(food\_seqq.nextval,'Pizza','800','12');

insert into food values(food\_seqq.nextval,'Kacchi','240','14');

insert into food values(food\_seqq.nextval,'Nachos','100','16');

insert into food values(food\_seqq.nextval,'Biryani','120','18');

The screenshot displays the Oracle Database Express Edition web interface. The top navigation bar includes the Oracle logo, the text 'Database Express Edition', and user information 'User: FOODMUNCH'. A breadcrumb trail shows 'Home > SQL > SQL Commands'. Below this, there are controls for 'Autocommit' (checked) and 'Display' (set to 10), along with 'Save' and 'Run' buttons. The main area contains the following SQL script:

```
create table food(food_id number(10)primary key ,food_name varchar2(20),price number(7),Resturant_reg number(10));

alter table food add constraint f2 foreign key (Resturant_reg) references resturant1 (Resturant_reg);
Create sequence food_seqq increment by 2 start with 60 maxvalue 200 nocycle nocache;

insert into food values(food_seqq.nextval,'Burger','300','10');
insert into food values(food_seqq.nextval,'Pizza','800','12');
insert into food values(food_seqq.nextval,'Kacchi','240','14');
insert into food values(food_seqq.nextval,'Nachos','100','16');
insert into food values(food_seqq.nextval,'Biryani','120','18');

select * From food;
```

Below the script, the 'Results' tab is active, showing a table with 5 rows. The table has columns: FOOD\_ID, FOOD\_NAME, PRICE, and RESTURANT\_REG. The data is as follows:

FOOD_ID	FOOD_NAME	PRICE	RESTURANT_REG
60	Burger	300	10
62	Pizza	800	12
64	Kacchi	240	14
66	Nachos	100	16
68	Biryani	120	18

At the bottom of the results section, it states '5 rows returned in 0.05 seconds' and provides a 'CSV Export' link. The footer of the interface includes 'Language: en-us' and a watermark for 'Activate Windows'.

## For table 9:

insert into Order2 values ('20','12.31','12-04-21','40');

insert into Order2 values ('22','12.32','13-04-21','42');

insert into Order2 values ('24','12.41','14-04-21','44');

insert into Order2 values ('26','12.51','15-04-21','46');

insert into Order2 values ('28','12.58','15-04-21','48');

The screenshot shows the Oracle Database Express Edition web interface. The user is 'FOODMUNCH'. The SQL Commands window contains the following code:

```
Create table Order2(Order_no number(12), Order_time varchar2(20),Order_Date varchar2(10),D_id varchar(10));  
alter table Order2 add constraint f10 foreign key (Order_no) references Order1 (Order_no);  
alter table Order2 add constraint f6 foreign key (D_id) references Delivery1 (D_id);  
  
insert into Order2 values ('20','12.31','12-04-21','40');  
insert into Order2 values ('22','12.32','13-04-21','42');  
insert into Order2 values ('24','12.41','14-04-21','44');  
insert into Order2 values ('26','12.51','15-04-21','46');  
insert into Order2 values ('28','12.58','15-04-21','48');  
  
select * From Order2;
```

The Results tab is selected, showing a table with 5 rows:

ORDER_NO	ORDER_TIME	ORDER_DATE	D_ID
20	12.31	12-04-21	40
22	12.32	13-04-21	42
24	12.41	14-04-21	44
26	12.51	15-04-21	46
28	12.58	15-04-21	48

5 rows returned in 0.11 seconds [CSV Export](#)

## For table 10:

Create sequence Payment\_seqw increment by 2 start with 70 maxvalue 300 nocycle nocache;

insert into Payment values(Payment\_seqw.nextval,'Yes','No','1');

insert into Payment values(Payment\_seq.nextval,'Yes','No','3');

insert into Payment values(Payment\_seq.nextval,'Yes','No','5');

insert into Payment values(Payment\_seq.nextval,'No','Yes','7');

insert into Payment values(Payment\_seq.nextval,'Yes','No','9');

The screenshot shows the Oracle Database Express Edition web interface. The user is 'FOODMUNCH'. The breadcrumb navigation is 'Home > SQL > SQL Commands'. The 'Autocommit' checkbox is checked, and the 'Display' dropdown is set to '10'. The SQL editor contains the following commands:

```
Create table Payment(Payment_id varchar2(15)primary key , Bkash varchar2(10),Cash varchar2(10), Customer_id varchar2(10));
alter table Payment add constraint ffgf foreign key (Customer_id) references Customer1(Customer_id);

Create sequence Payment_seqw increment by 2 start with 70 maxvalue 300 nocycle nocache;
insert into Payment values(Payment_seqw.nextval,'Yes','No','1');
insert into Payment values(Payment_seqw.nextval,'Yes','No','3');
insert into Payment values(Payment_seqw.nextval,'Yes','No','5');
insert into Payment values(Payment_seqw.nextval,'No','Yes','7');
insert into Payment values(Payment_seqw.nextval,'Yes','No','9');

select * From Payment ;|
```

The 'Results' tab is selected, showing a table with 5 rows:

PAYMENT_ID	BKASH	CASH	CUSTOMER_ID
70	Yes	No	1
72	Yes	No	3
74	Yes	No	5
76	No	Yes	7
78	Yes	No	9

Below the table, it says '5 rows returned in 0.03 seconds' and provides a 'CSV Export' link. The footer shows 'Language: en-us' and 'Application Express 2.1.0.00.39 Copyright © 1999, 2008, Oracle. All rights reserved.'

### For table 11:

insert into Foreignkeytable values('K@gmail','74');

insert into Foreignkeytable values('R@gmail','75');

insert into Foreignkeytable values('N@gmail','76');

insert into Foreignkeytable values('A@gmail','77');

insert into Foreignkeytable values('M@gmail','78');

ORACLE® Database Express Edition

User: FOODMUNCH

Home > SQL > SQL Commands

☒ Autocommit Display 10 Save Run

```
Create table Foreignkeytable (Email varchar (10) , D_id varchar (10));
alter table Foreignkeytable add constraint f25 foreign key (Email) references Food_Munch (Email);

insert into Foreignkeytable values('K@gmail','74');
insert into Foreignkeytable values('R@gmail','75');
insert into Foreignkeytable values('N@gmail','76');
insert into Foreignkeytable values('A@gmail','77');
insert into Foreignkeytable values('M@gmail','78');

select * From Foreignkeytable;
```

Results Explain Describe Saved SQL History

EMAIL	D_ID
K@gmail	74
R@gmail	75
N@gmail	76
A@gmail	77
M@gmail	78

5 rows returned in 0.08 seconds [CSV Export](#)

Language: en-us

Activate Windows  
Go to Settings to activate Windows.

Application Express 2.1.0.00.39  
Copyright © 1999, 2008, Oracle. All rights reserved.

# Query Writing:

## Subquery 1:

ORACLE Database Express Edition

User: FOODMUNCH

Home > SQL > SQL Commands

☒ Autocommit Display 10 Save Run

Which Customer1's Customer\_id is greater than Akib?  
Display that Customer\_names.

```
Select Customer_name from Customer1 where Customer_id > (Select Customer_id from Customer1 where Customer_name='Akib');
```

Results Explain Describe Saved SQL History

CUSTOMER_NAME
kabyo
Nusrat
Alinon
Musfiq

4 rows returned in 1.21 seconds [CSV Export](#)

Language: en-us

Activate Windows Application Express 2.1.0.00.39 Copyright © 1999, 2008, Oracle. All rights reserved.

## Subquery 2:

ORACLE Database Express Edition

User: FOODMUNCH

Home > SQL > SQL Commands

☒ Autocommit Display 10 Save Run

Which resturant1's Resturant\_reg is higher than Jafran?

```
Select Resturant_reg from resturant1 where Resturant_reg > (Select Resturant_reg from resturant1 where Resturant_name='Jafran');
```

Results Explain Describe Saved SQL History

RESTURANT_REG
14
16
18

3 rows returned in 0.43 seconds [CSV Export](#)

Language: en-us

Activate Windows Application Express 2.1.0.00.39 Copyright © 1999, 2008, Oracle. All rights reserved.



## Joining 1:

Home > SQL > SQL Commands

☒ Autocommit Display 10 ▼

Question1:Display the User\_name from Food\_Munch and Phone\_number from Customer1 using joining.

```
Select Food_Munch.User_name,Customer1.Phone_number from Food_Munch,Customer1 where Food_Munch.Email=Customer1.Email;
```

**Results** Explain Describe Saved SQL History

USER_NAME	PHONE_NUMBER
Akib	458856
kabyo	458857
Nusrat	458858
Alincon	458859
Musfiq	458860

5 rows returned in 0.30 seconds

[CSV Export](#)

## Joining 2:

☒ Autocommit Display 10 ▼

Save

Question 2:Display the food name from food and Restaurant name from restaurant1 using joining.

```
Select food.food_name,restaurant1.Resturant_name from food,restaurant1 where restaurant1.Resturant_reg=food.Resturant_reg;
```

**Results** Explain Describe Saved SQL History

FOOD_NAME	RESTURANT_NAME
Burger	Khanas
Pizza	Jafran
Kacchi	KacchiBahi
Nachos	Dhakafood
Biryani	Mouchak

5 rows returned in 0.08 seconds

[CSV Export](#)

## View 1:

Home > SQL > SQL Commands

☒ Autocommit Display 10

Question :Create a view called FoodMunch101view based on the User\_name and Password from the FoodMunch table.

```
create view FoodMunch101view as select User_name ,Password from Food_Munch;
```

Question:Display the contents of the FoodMunch101view view.

```
select * from FoodMunch101view;
```

Results Explain Describe Saved SQL History

USER_NAME	PASSWORD
Akib	re457
kabyo	re458
Nusrat	re459
Alincon	re460
Mustiq	re461

5 rows returned in 0.01 seconds

[CSV Export](#)

Language: en-gb

Copy

## View 2:

☒ Autocommit Display 10

Save

Question: Create a view called customer102view based on the customer\_address and Phone\_number from the customer1 table.

```
create view customer102view as select customer_address,Phone_number from customer1;
```

Question: Display the contents of the customer102view view.

```
select * from customer102view;
```

Results Explain Describe Saved SQL History

CUSTOMER_ADDRESS	PHONE_NUMBER
Mirpur	458856
Dhanmondi	458857
Badda	458858
Uttara	458859
Uttara	458860

5 rows returned in 0.00 seconds

[CSV Export](#)

Application Express 2.1.0

## **Relational Algebra:**

1. Find out his email whose User\_name is Akib

$\Pi_{Email}(\sigma_{User\_name = \text{"Akib"}}(FoodMunch))$

2. Find out his phone\_number whose User\_name is Kabyo

$\Pi_{phone\_number}(\sigma_{User\_name = \text{"kabyo"}}(FoodMunch))$

3. Find out the customer address whose phone\_number is "458856".

$\Pi_{Cutomer\_address}(\sigma_{Phone\_number = \text{"458856"}}(Customer1))$

4. Find out the customer name whose customer\_address is Mirpur.

$\Pi_{Customer\_name}(\sigma_{Customer\_address = \text{"Mirpur"}}(Customer2))$

5. Find out the price of food which name is Burger.

$\Pi_{Price}(\sigma_{food\_name = \text{"Burger"}}(food))$

## **Conclusion:**

Our foodMunch app deliver food in a flash whatever customer's want. It's our mission to bring food customer's want right to their door. Our foodMunch app is crammed with the greatest food experience in Dhaka city. Our moto is always working hard to optimize our app with the latest technologies and best new features. As this is a database based project so we have stored all the needed information of our customers and delivery boys' and others' in the database. In future we will also add grocery and electronics items for our customer in the database. And for the convenience of our customers, all kinds of restaurants in each area will be added to our foodMunch app.