PROJECT SUBMISSION

PROJECT NAME**: "ORDERING FOOD ONLINE"**

COURSE NAME**: INTRODUCTION TO DATABASE**

COURSE TEACHER**: RIFAT TASNIM ANANNYA**

SUBMISSION DATE**: 11.12.19**

SECTION: **I**

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CO1: Solve problems of Relational Algebra to interpret complex engineering problems

Category	Inadequate (1)	Satisfactory(2)	Good(3-4)	Excellent(5)
Syntax				
Correctness				
Standard				

CO2: Design ER Diagram to solve complex engineering problems

Category	Inadequate (1)	Satisfactory(2)	Good(3-4)	Excellent(5)
Syntax				
Correctness				
Standard				

CO3: Demonstrate DDL, DML and SQL using Oracle

Category	Inadequate (1)	Satisfactory(2)	Good(3-4)	Excellent(5)
Syntax				
Correctness				
Standard				

3

Name: MOHAMMED MOFIZUR RAHMAN	ID: 19-40120-1	Sec: I

CO1: Solve problems of Relational Algebra to interpret complex engineering problems

Category	Inadequate (1)	Satisfactory(2)	Good(3-4)	Excellent(5)
Syntax				
Correctness				
Standard				

CO2: Design ER Diagram to solve complex engineering problems

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CO3: Demonstrate DDL, DML and SQL using Oracle

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CO1: Solve problems of Relational Algebra to interpret complex engineering problems

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Standard				

4

Name: TANHA REJA	ID: 19-40151-1	Sec: I

CO1: Solve problems of Relational Algebra to interpret complex engineering problems

Category	Inadequate (1)	Satisfactory(2)	Good(3-4)	Excellent(5)
Syntax				
Correctness				
Standard				

CO2: Design ER Diagram to solve complex engineering problems

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Syntax				
Correctness				
Standard				

CO3: Demonstrate DDL, DML and SQL using Oracle

Category	Inadequate (1)	Satisfactory(2)	Good(3-4)	Excellent(5)
Syntax				
Correctness				
Standard				

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Name: RISALAT MOLLA	ID: 19-39939-1	Sec: I

CO1: Solve problems of Relational Algebra to interpret complex engineering problems

Category	Inadequate (1)	Satisfactory(2)	Good(3-4)	Excellent(5)
Syntax				
Correctness				
Standard				

CO2: Design ER Diagram to solve complex engineering problems

Category	Inadequate (1)	Satisfactory(2)	Good(3-4)	Excellent(5)
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CO3: Demonstrate DDL, DML and SQL using Oracle

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Correctness				
Standard				

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Introduction

Database Management System (DBMS) is a collection of programs for managing data and simultaneously it support different type of users to create, manage, retrieve, update and store information. The vital functions of the database are that it not only manages database engine which is used to access the data but also the database schema which is used to access the data but also the database schema which is used to define the logical structure of a database.

We used the concept of DBMS in our project-

“Ordering Food Online System”

SCENARIO

“Ordering Food Online System”

1.Every Product has a unique Product id,a Product name and a Price.

2.Every order has a unique Order id,a Order date,a Total price,a Quantity,Price.Each order contains one or more than one products and also each product can have one or more than one order.

3.Every customer has a unique customer id,a customer name,an address.Here,each customer can place one or more than one order and each order can be placed by only one customer.

4.Every payment has a unique pay id and pay status.Here,each customer pays only one payment and each payment can be paid by only one customer.

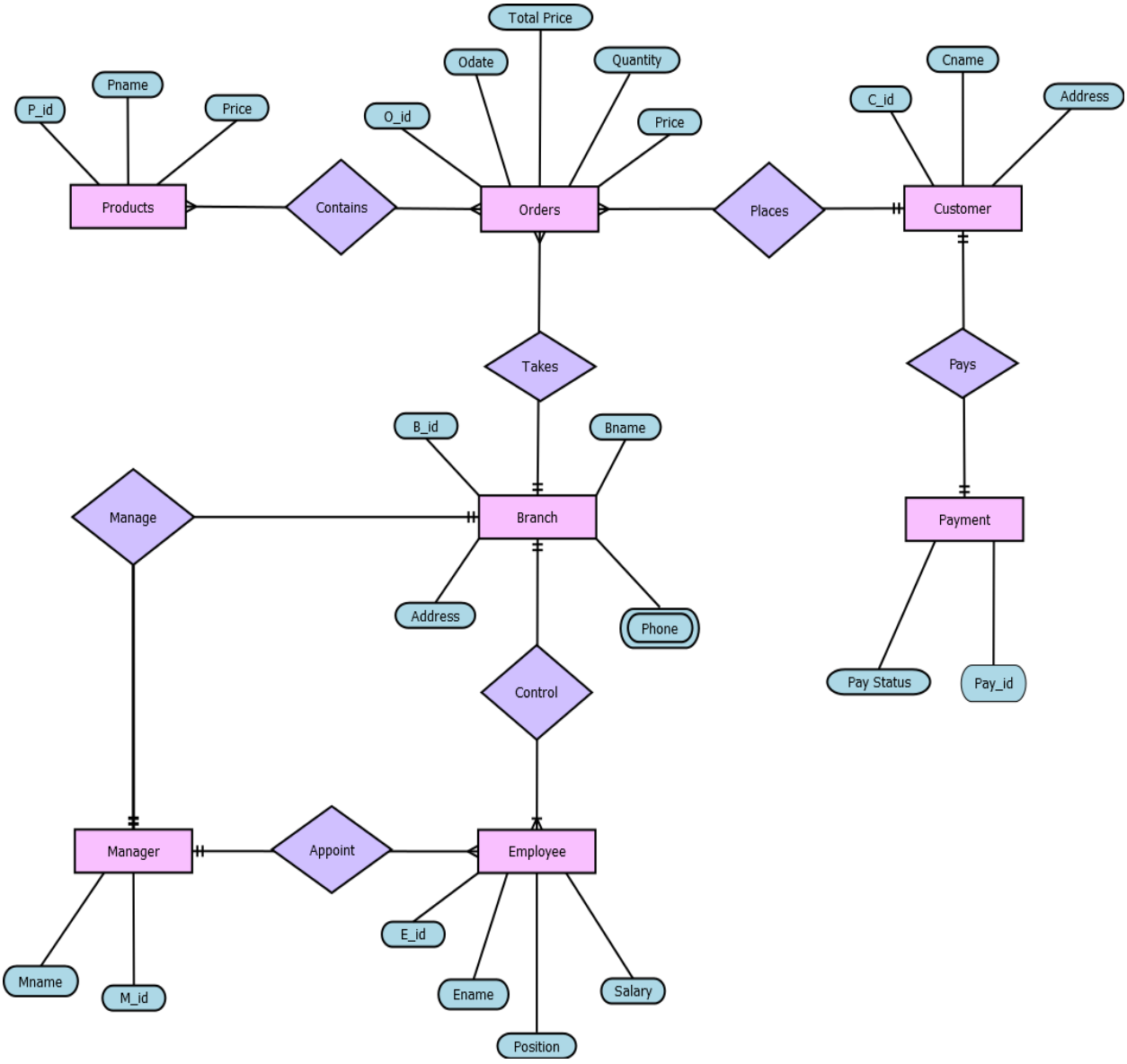
5.Every branch has a unique branch id,a branch name,multiple phones and an address.Each branch can take many orders and also for each order,there is only one branch.

6.Every manager has a unique manager id,a manager name.Here,each manager manages only

7.Every employee has a unique employee id,a employee name,a position and salary.Here,each branch can control one or more than one employee but each employee is controlled by only one branch.

8.Here,each manager can appoint many employee and also each employee can be appointed by only one manager.

ER Diagram


Total Price
Odate
Quantity
Cname
Pname
P_id
Price
O_id
Price
C_id
Address
Products
Contains
Orders
Places
Customer
Takes
Pays
B_id
Bname
Manage
Branch
Payment
Address
Phone
Control
Pay Status
Pay_id
Manager
Appoint
Employee
E_id
Mname
M_id
Ename
Salary
Position

NORMALIZATION

❖ Final Table List

1. P-id , Pname , Price
2. O-id , Odate , Price , Q-id , B-id , C-id
3. Q-id , Quantity , Total_price
4. N-id , O-id , P-id
5. C-id , Cname , Address , Pay-id
6. Pay-id , Pay_status
7. B-id ,Bname , Address , M-id
8. B-id , Phone
9. E-id , Ename , Sal-id , B-id , M-id
10. Sal-id , Salary , Position
11. M-id , Mname

Table Name	**Column Name**
Products	P-id , Pname , Price
Orders	O-id , Odate , Price , Q-id , B-id , C-id
Quantity	Q-id , Quantity , Total_price
New Table	N-id , O-id , P-id
Customer	C-id , Cname , Address , Pay-id
Payment	Pay-id , Pay_status
Branch	B-id ,Bname , Address , M-id
Composite	B-id , Phone
Employee	E-id , Ename , Sal-id , B-id , M-id
Salary	Sal-id , Salary , Position
Manager	M-id , Mname

TABLE CREATION-DESCRIPTION TABLE

Products

Autocommit Display 100000

```
DESC PRODUCTS
```

Results Explain Describe Saved SQL History

Object Type TABLE Object PRODUCTS

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PRODUCTS	P_ID	Number	-	10	0	1	-	-	-
	PNAME	Varchar2	20	-	-	-	-	-	-
	PRICE	Number	-	10	0	-	-	-	-

1 - 3

Orders

Autocommit Display 100000

```
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	O_ID	Number	-	10	0	1	-	-	-
	ODATE	Date	7	-	-	-	-	-	-
	Q_ID	Number	-	10	0	-	✓	-	-
	B_ID	Number	-	10	0	-	✓	-	-
	C_ID	Number	-	10	0	-	✓	-	-
	PRICE	Number	-	10	0	-	✓	-	-

1 - 6

Quantity

Autocommit Display 100000

```
DESC QUANTITY
```

Results Explain Describe Saved SQL History

Object Type TABLE Object QUANTITY

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
QUANTITY	Q_ID	Number	-	10	0	1	-	-	-
	QUANTITY	Number	-	8	0	-	-	-	-
	TOTAL_PRICE	Number	-	8	0	-	-	-	-

1 - 3

New_Table

Autocommit Display 100000

```
DESC NEW_TABLE
```

Results Explain Describe Saved SQL History

Object Type TABLE Object NEW_TABLE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
NEW_TABLE	N_ID	Number	-	10	0	1	-	-	-
	P_ID	Number	-	10	0	-	✓	-	-
	O_ID	Number	-	10	0	-	✓	-	-

1 - 3

Customer

Autocommit Display 100000

```
DESC CUSTOMER
```

Results Explain Describe Saved SQL History

Object Type TABLE Object CUSTOMER

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMER	C_ID	Number	-	10	0	1	-	-	-
	CNAME	Varchar2	20	-	-	-	-	-	-
	ADDRESS	Varchar2	30	-	-	-	✓	'Dhaka'	-
	PAY_ID	Number	-	10	0	-	✓	-	-

1 - 4

Payment

Autocommit Display 100000

```
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	PAY_ID	Number	-	10	0	1	-	-	-
	PAY_STATUS	Varchar2	10	-	-	-	-	-	-

1 - 2

Branch

Autocommit Display 100000

```
DESC BRANCH
```

Results Explain Describe Saved SQL History

Object Type TABLE Object BRANCH

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
BRANCH	B_ID	Number	-	10	0	1	-	-	-
	BNAME	Varchar2	20	-	-	-	-	-	-
	ADDRESS	Varchar2	30	-	-	-	✓	'Dhaka'	-
	M_ID	Number	-	10	0	-	✓	-	-

1 - 4

Composite

Autocommit Display 100000

```
DESC COMPOSITE
```

Results Explain Describe Saved SQL History

Object Type TABLE Object COMPOSITE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
COMPOSITE	B_ID	Number	-	10	0	1	-	-	-
	PHONE	Number	-	20	0	2	-	-	-

1 - 2

Employee

Autocommit Display 100000

```
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	E_ID	Number	-	10	0	1	-	-	-
	ENAME	Varchar2	20	-	-	-	-	-	-
	SAL_ID	Number	-	10	0	-	✓	-	-
	B_ID	Number	-	10	0	-	✓	-	-
	M_ID	Number	-	10	0	-	✓	-	-

1 - 5

Salary

Autocommit Display 100000

```
DESC SALARY
```

Results Explain Describe Saved SQL History

Object Type TABLE Object SALARY

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
SALARY	SAL_ID	Number	-	10	0	1	-	-	-
	POSITION	Varchar2	15	-	-	-	-	-	-
	SALARY	Number	-	8	0	-	✓	-	-

1 - 3

Manager

Autocommit Display 100000

```
DESC MANAGER
```

Results Explain Describe Saved SQL History

Object Type TABLE Object MANAGER

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
MANAGER	M_ID	Number	-	10	0	1	-	-	-
	MNAME	Varchar2	20	-	-	-	-	-	-

1 - 2

TABLE – SELECT *

PRODUCTS

Autocommit Display 100000

```
SELECT *
FROM PRODUCTS
```

Results Explain Describe Saved SQL History

P_ID	PNAME	PRICE
101	PIZZA	200
102	BURGER	150
103	SHWARMA	120
104	PASTA	250
105	WINGS	220

5 rows returned in 0.03 seconds CSV Export

ORDERS

Autocommit Display 100000

```
SELECT *
FROM ORDERS
```

Results Explain Describe Saved SQL History

O_ID	ODATE	Q_ID	B_ID	C_ID	PRICE
203	10-NOV-19	303	803	503	120
201	05-DEC-19	305	801	501	200
202	10-DEC-19	304	802	502	150
204	18-NOV-19	302	804	504	250
205	20-NOV-19	301	805	505	220

5 rows returned in 0.03 seconds CSV Export

QUANTITY

Autocommit Display 100000

```
SELECT *
FROM QUANTITY
```

Results Explain Describe Saved SQL History

Q_ID	QUANTITY	TOTAL_PRICE
301	2	440
302	3	750
303	4	480
304	1	150
305	5	1000

5 rows returned in 0.18 seconds CSV Export

NEW_TABLE

Autocommit Display 100000

```
SELECT* FROM NEW_TABLE
```

Results Explain Describe Saved SQL History

N_ID	P_ID	O_ID
401	101	205
402	102	204
403	103	203
404	104	202
405	105	201

5 rows returned in 0.03 seconds CSV Export

CUSTOMER

Autocommit Display 100000

```
SELECT *
FROM CUSTOMER
```

Results Explain Describe Saved SQL History

C_ID	CNAME	ADDRESS	PAY_ID
501	RAFSAN	08,BLOCK-C,ROAD-5,BASHUNDHARA	702
502	RAFIN	08,SECTOR-06,ROAD-12,UTTARA	704
503	MAHIA	14,ROAD-03,DHANMONDI	703
504	SAMIA	123,ROAD-8A,DHANMONDI	701
505	NAZIA	12,ROAD-12,BASHUNDHARA	705

5 rows returned in 0.36 seconds CSV Export

PAYMENT

Autocommit Display 100000

```
SELECT *
FROM PAYMENT
```

Results Explain Describe Saved SQL History

PAY_ID	PAY_STATUS
701	YES
702	YES
703	NO
704	YES
705	NO

5 rows returned in 0.11 seconds CSV Export

BRANCH

Autocommit Display 100000

```
SELECT *
FROM BRANCH
```

Results Explain Describe Saved SQL History

B_ID	BNAME	ADDRESS	M_ID
801	KHANAS-BASHUNDHARA	30,ROAD-5,BLOCK-A,BASHUNDHARA	352
802	JAFRAN-UTTARA	408,ROAD-5,SECTOR-6,UTTARA	354
803	BURGUR_KING-UTTARA	23,ROAD-7,SECTOR-1,UTTARA	353
804	CHILLOX-DHANMONDI	123,ROAD-8A,DHANMONDI	351
805	KFC-DHANMONDI	22,ROAD-15C,DHANMONDI	355

5 rows returned in 0.26 seconds CSV Export

COMPOSITE

Autocommit Display 100000

```
SELECT *
FROM COMPOSITE
```

Results Explain Describe Saved SQL History

B_ID	PHONE
801	1815098356
802	19150783556
803	17750786556
804	13150886556
805	15750886556

5 rows returned in 0.12 seconds CSV Export

EMPLOYEE

Autocommit Display 100000

```
SELECT *
FROM EMPLOYEE
```

Results Explain Describe Saved SQL History

E_ID	ENAME	SAL_ID	B_ID	M_ID
151	JIHAD	251	801	352
153	FAYSAL	254	805	353
154	REZA	255	803	354
155	ARNOB	252	804	351
152	BAPPY	253	802	355

5 rows returned in 0.29 seconds CSV Export

SALARY

Autocommit Display 100000

```
SELECT *
FROM SALARY
```

Results Explain Describe Saved SQL History

SAL_ID	POSITION	SALARY
251	CASHIER	10000
252	CHEF	15000
253	DELIVERY BOY	8000
254	CLEANER	6000
255	MANAGER	25000

5 rows returned in 0.06 seconds CSV Export

MANAGER

Autocommit Display 100000

```
SELECT *
FROM MANAGER
```

Results Explain Describe Saved SQL History

M_ID	MNAME
351	EIMAN
352	NAZIM
353	NUSRAT
354	JAMIL
355	ANANNYA

5 rows returned in 0.03 seconds CSV Export

CONSTRAINTS CHECK

Autocommit Display 100000

```
SELECT *
FROM USER_CONSTRAINTS
WHERE TABLE_NAME='NEW_TABLE'
```

Results Explain Describe Saved SQL History

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS	DEFERRABLE	DEFERRED	VALIDATED	GENERATED
SYSTEM	SYS_C004223	P	NEW_TABLE	-	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME
SYSTEM	A4	R	NEW_TABLE	-	SYSTEM	SYS_C004181	NO ACTION	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	USER NAME
SYSTEM	A5	R	NEW_TABLE	-	SYSTEM	SYS_C004180	NO ACTION	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	USER NAME

3 rows returned in 0.04 seconds CSV Export

Autocommit Display 100000

```
SELECT *
FROM USER_CONSTRAINTS
WHERE TABLE_NAME='ORDERS'
```

Results Explain Describe Saved SQL History

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS	DEFERRABLE	DEFERRED	VALIDATED	GENERATED
SYSTEM	A2	R	ORDERS	-	SYSTEM	SYS_C004183	NO ACTION	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	USER NAME
SYSTEM	A3	R	ORDERS	-	SYSTEM	SYS_C004182	NO ACTION	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	USER NAME
SYSTEM	A1	R	ORDERS	-	SYSTEM	SYS_C004213	NO ACTION	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	USER NAME
SYSTEM	SYS_C004181	P	ORDERS	-	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME
SYSTEM	SYS_C004188	C	ORDERS	"ODATE" IS NOT NULL	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME

5 rows returned in 0.81 seconds CSV Export

Autocommit Display 100000

```
SELECT *
FROM USER_CONSTRAINTS
WHERE TABLE_NAME='EMPLOYEE'
```

Results Explain Describe Saved SQL History

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS	DEFERRABLE	DEFERRED	VALIDATED	GENERATED
SYSTEM	SYS_C004193	C	EMPLOYEE	"ENAME" IS NOT NULL	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME
SYSTEM	A8	R	EMPLOYEE	-	SYSTEM	SYS_C004226	NO ACTION	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	USER NAME
SYSTEM	A9	R	EMPLOYEE	-	SYSTEM	SYS_C004183	NO ACTION	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	USER NAME
SYSTEM	A10	R	EMPLOYEE	-	SYSTEM	SYS_C004186	NO ACTION	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	USER NAME
SYSTEM	SYS_C004185	P	EMPLOYEE	-	-	-	-	ENABLED	NOT DEFERRABLE	IMMEDIATE	VALIDATED	GENERATED NAME

5 rows returned in 0.04 seconds CSV Export

Autocommit Display 10000

```
select *
from user_constraints
where table_name='CUSTOMER'
```

Results Explain Describe Saved SQL History

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS
SYSTEM	A6	R	CUSTOMER	-	SYSTEM	SYS_C004184	NO ACTION	ENABLED
SYSTEM	SYS_C004182	P	CUSTOMER	-	-	-	-	ENABLED
SYSTEM	SYS_C004189	C	CUSTOMER	"CNAME" IS NOT NULL	-	-	-	ENABLED

3 rows returned in 0.00 seconds CSV Export

Autocommit Display 10000

```
select *
from user_constraints
where table_name='COMPOSITE'
```

Results Explain Describe Saved SQL History

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS
SYSTEM	B1	P	COMPOSITE	-	-	-	-	ENABLED
SYSTEM	A11	R	COMPOSITE	-	SYSTEM	SYS_C004183	NO ACTION	ENABLED

2 rows returned in 0.28 seconds CSV Export

Autocommit Display 10000

```
select *
from user_constraints
where table_name='BRANCH'
```

Results Explain Describe Saved SQL History

OWNER	CONSTRAINT_NAME	CONSTRAINT_TYPE	TABLE_NAME	SEARCH_CONDITION	R_OWNER	R_CONSTRAINT_NAME	DELETE_RULE	STATUS
SYSTEM	A7	R	BRANCH	-	SYSTEM	SYS_C004186	NO ACTION	ENABLED
SYSTEM	SYS_C004183	P	BRANCH	-	-	-	-	ENABLED
SYSTEM	SYS_C004191	C	BRANCH	"BNAME" IS NOT NULL	-	-	-	ENABLED

3 rows returned in 0.02 seconds CSV Export

Query Questions:

1.Create a query to find order id from order table who ordered burger from products table.

2.Create a query to find customer name from customer table who has highest payment id group by their payment status from payment table.

3.Display employee name, position, salary, salary id of tHE employees

4.Display manager name, manager id whose branch id is above 803.

5.Display customer id, customer name, payment id and payment status of the customers, order by customer id in ascending order.

6.Create a sequence named PR1, increment by 1, max value 105, starts with 101, no min value, no cycle, no cache.

7.Create a view called EM_Test based on the employee name, maximum manager id, minimum manager id, manager name from employee and manager table. Label the columns Employee, Max, Min, Manager.

8.Create a view called B1 based on branch id, branch name from branch table where branch id is less than 803.

9.Alter the view B1 and add a constraint to check if the branch id is less than 803 or not.

10.Alter the view B1 and add read only option so that no one can insert values into it.

Relational Algebra:

1. Find out the price for each product which p_id is greater than 103.

$\Pi_{price}\ [\sigma_{p\_id > 103}\ (products)\ ]$

2. Find out the B_id of all the branches which have a address or phone.

$\Pi_{b\_id}\ (branch)\ \ U\ \ \Pi_{b\_id}(composite)$

3. Find out the name of all the employees whose salary is greater than 10000.

$\Pi_{C\_name}[\sigma_{salary>10000\ and\ employee.sal\_id=salary.sal\_id}(employee\ X\ salary)$

4. Find the name of all the customers whose payment status is yes.

$\Pi_{Cname}[\sigma_{Pay\_status=”yes”}(customer\ X\ payment)\ ]$

5. Find the ename of all the employees but exclude jamil.

$\Pi_{Ename}[\sigma_{employee.m\_id\ =\ manager.m\_id}\ (employee\ X\ manager)\ ]$