

Database Systems Lab - 14CS2012

REGISTER NO: UR14CS228

DATE: 11-08-16

EXPERIMENT NO-1

Video URL: https://youtu.be/1hfrKDK9kCs?list=PLRS_VYrnFL6lj53kJl8EaWDEsoE-8Epkj

AIM:

Create tables using DDL and DCL commands.

DESCRIPTION:

Data Definition Language (DDL) - These SQL commands are used for creating, modifying, and dropping the structure of database objects. The commands are CREATE, ALTER, DROP, RENAME, and TRUNCATE.

Data Control Language (DCL) - These SQL commands are used for providing security to database objects. These commands are GRANT and REVOKE.

- 1.Create the above tables, with primary key constraints.
- 2.Add foreign key reference to the customer_id attribute.

```
CREATE TABLE customer(customer_id NUMBER(10),customer_name
VARCHAR(25),customer_address VARCHAR(50),city VARCHAR(10),state
VARCHAR(20),pstal_code VARCHAR(6),CONSTRAINT pk_customerid PRIMARY KEY
(customer_id));
DESC customer;
CREATE TABLE orders(order_id NUMBER(10),order_date DATE,customer_id
NUMBER(10),CONSTRAINT pk_orderid PRIMARY KEY (order_id),CONSTRAINT
fk_orderid FOREIGN KEY (customer_id) REFERENCES customer(customer_id));
DESC orders;
CREATE TABLE product(product_id NUMBER(10),product_description
VARCHAR(50),product_finish VARCHAR(10),product_line_id
NUMBER(10),CONSTRAINT pk_productid PRIMARY KEY (product_id));
DESC product;
CREATE TABLE orderline(order_id NUMBER(10),product_id
NUMBER(10),ordered_quantity
NUMBER(10),CONSTRAINT pk_orderid1 PRIMARY KEY (order_id),FOREIGN KEY
(product_id) REFERENCES product(product_id));
```

```
DESC orderline;
CREATE TABLE supplier(s_id NUMBER(10),s_name VARCHAR(25),gender
VARCHAR(8),s_date DATE,p_id NUMBER(10),CONSTRAINT pk_sid
PRIMARYKEY(s_id));
```

DESC supplier;

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```
CREATE TABLE customer(customer_id NUMBER(10),customer_name VARCHAR(25),customer_address VARCHAR(50),city VARCHAR(10),state VARCHAR(20),postal_code VARCHAR(6),CONSTRAINT pk_customerid PRIMARY KEY (customer_id));
DESC customer;
CREATE TABLE orderl(order_id NUMBER(10),order_date DATE,customer_id NUMBER(10),CONSTRAINT pk_orderid PRIMARY KEY (order_id),CONSTRAINT fk_orderid FOREIGN KEY (customer_id) REFERENCES customer(customer_id));
DESC orderl;
CREATE TABLE product(product_id NUMBER(10),product_description VARCHAR(50),product_finish VARCHAR(10),product_line_id NUMBER(10),CONSTRAINT pk_productid PRIMARY KEY (product_id));
DESC product;
CREATE TABLE orderline(order_id NUMBER(10),product_id NUMBER(10),ordered_quantity NUMBER(10),CONSTRAINT pk_orderid PRIMARY KEY (order_id),FOREIGN KEY (product_id) REFERENCES product(product_id));
DESC orderline;
CREATE TABLE supplier(s_id NUMBER(10),s_name VARCHAR(25),gender VARCHAR(8),s_date DATE,p_id NUMBER(10),CONSTRAINT pk_sid PRIMARY KEY(s_id));
DESC supplier;
```

Results Explain Describe Saved SQL History

Object Type TABLE Object CUSTOMER

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMER	CUSTOMER_ID	Number	-	10	0	1	-	-	-
	CUSTOMER_NAME	Varchar2	25	-	-	-	✓	-	-
	CUSTOMER_ADDRESS	Varchar2	50	-	-	-	✓	-	-
	CITY	Varchar2	10	-	-	-	✓	-	-
	STATE	Varchar2	20	-	-	-	✓	-	-
	POSTAL_CODE	Varchar2	6	-	-	-	✓	-	-

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```
CREATE TABLE customer(customer_id NUMBER(10),customer_name VARCHAR(25),customer_address VARCHAR(50),city VARCHAR(10),state VARCHAR(20),postal_code VARCHAR(6),CONSTRAINT pk_customerid PRIMARY KEY (customer_id));
DESC customer;
CREATE TABLE orderl(order_id NUMBER(10),order_date DATE,customer_id NUMBER(10),CONSTRAINT pk_orderid PRIMARY KEY (order_id),CONSTRAINT fk_orderid FOREIGN KEY (customer_id) REFERENCES customer(customer_id));
DESC orderl;
CREATE TABLE product(product_id NUMBER(10),product_description VARCHAR(50),product_finish VARCHAR(10),product_line_id NUMBER(10),CONSTRAINT pk_productid PRIMARY KEY (product_id));
DESC product;
CREATE TABLE orderline(order_id NUMBER(10),product_id NUMBER(10),ordered_quantity NUMBER(10),CONSTRAINT pk_orderid PRIMARY KEY (order_id),FOREIGN KEY (product_id) REFERENCES product(product_id));
DESC orderline;
CREATE TABLE supplier(s_id NUMBER(10),s_name VARCHAR(25),gender VARCHAR(8),s_date DATE,p_id NUMBER(10),CONSTRAINT pk_sid PRIMARY KEY(s_id));
DESC supplier;
```

Results Explain Describe Saved SQL History

Object Type TABLE Object PRODUCT

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PRODUCT	PRODUCT_ID	Number	-	10	0	1	-	-	-
	PRODUCT_DESCRIPTION	Varchar2	50	-	-	-	✓	-	-
	PRODUCT_FINISH	Varchar2	10	-	-	-	✓	-	-
	PRODUCT_LINE_ID	Number	-	10	0	-	✓	-	-

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```
CREATE TABLE customer(customer_id NUMBER(10),customer_name VARCHAR(25),customer_address VARCHAR(50),city VARCHAR(10),state VARCHAR(20),postal_code VARCHAR(6),CONSTRAINT pk_customerid PRIMARY KEY (customer_id));
DESC customer;
CREATE TABLE order1(order_id NUMBER(10),order_date DATE,customer_id NUMBER(10),CONSTRAINT pk_orderid PRIMARY KEY (order_id),CONSTRAINT fk_orderid FOREIGN KEY (customer_id) REFERENCES customer(customer_id));
DESC order1;
CREATE TABLE product(product_id NUMBER(10),product_description VARCHAR(50),product_finish VARCHAR(10),product_line_id NUMBER(10),CONSTRAINT pk_productid PRIMARY KEY (product_id));
DESC product;
CREATE TABLE orderline(order_id NUMBER(10),product_id NUMBER(10),ordered_quantity NUMBER(10),CONSTRAINT pk_orderid1 PRIMARY KEY (order_id),FOREIGN KEY (product_id) REFERENCES product(product_id));
DESC orderline;
CREATE TABLE supplier(s_id NUMBER(10),s_name VARCHAR(25),gender VARCHAR(8),s_date DATE,p_id NUMBER(10),CONSTRAINT pk_sid PRIMARY KEY(s_id));
DESC supplier;
```

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_ID	Number	-	10	0	1	-	-	-
	ORDER_DATE	Date	7	-	-	-	✓	-	-
	CUSTOMER_ID	Number	-	10	0	-	✓	-	-
1-3									

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```
CREATE TABLE customer(customer_id NUMBER(10),customer_name VARCHAR(25),customer_address VARCHAR(50),city VARCHAR(10),state VARCHAR(20),postal_code VARCHAR(6),CONSTRAINT pk_customerid PRIMARY KEY (customer_id));
DESC customer;
CREATE TABLE order1(order_id NUMBER(10),order_date DATE,customer_id NUMBER(10),CONSTRAINT pk_orderid PRIMARY KEY (order_id),CONSTRAINT fk_orderid FOREIGN KEY (customer_id) REFERENCES customer(customer_id));
DESC order1;
CREATE TABLE product(product_id NUMBER(10),product_description VARCHAR(50),product_finish VARCHAR(10),product_line_id NUMBER(10),CONSTRAINT pk_productid PRIMARY KEY (product_id));
DESC product;
CREATE TABLE orderline(order_id NUMBER(10),product_id NUMBER(10),ordered_quantity NUMBER(10),CONSTRAINT pk_orderid1 PRIMARY KEY (order_id),FOREIGN KEY (product_id) REFERENCES product(product_id));
DESC orderline;
CREATE TABLE supplier(s_id NUMBER(10),s_name VARCHAR(25),gender VARCHAR(8),s_date DATE,p_id NUMBER(10),CONSTRAINT pk_sid PRIMARY KEY(s_id));
DESC supplier;
```

Results Explain Describe Saved SQL History

Object Type TABLE Object ORDERLINE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORDERLINE	ORDER_ID	Number	-	10	0	1	-	-	-
	PRODUCT_ID	Number	-	10	0	-	✓	-	-
	ORDERED QUANTITY	Number	-	10	0	-	✓	-	-
1-3									

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```
CREATE TABLE customer(customer_id NUMBER(10),customer_name VARCHAR(25),customer_address VARCHAR(50),city VARCHAR(10),state VARCHAR(20),postal_code VARCHAR(6),CONSTRAINT pk_customerid PRIMARY KEY (customer_id));
DESC customer;
CREATE TABLE order1(order_id NUMBER(10),order_date DATE,customer_id NUMBER(10),CONSTRAINT pk_orderid PRIMARY KEY (order_id),CONSTRAINT fk_orderid FOREIGN KEY (customer_id) REFERENCES customer(customer_id));
DESC order1;
CREATE TABLE product(product_id NUMBER(10),product_description VARCHAR(50),product_finish VARCHAR(10),product_line_id NUMBER(10),CONSTRAINT pk_productid PRIMARY KEY (product_id));
DESC product;
CREATE TABLE orderline(order_id NUMBER(10),product_id NUMBER(10),ordered_quantity NUMBER(10),CONSTRAINT pk_orderid1 PRIMARY KEY (order_id),FOREIGN KEY (product_id) REFERENCES product(product_id));
DESC orderline;
CREATE TABLE supplier(s_id NUMBER(10),s_name VARCHAR(25),gender VARCHAR(8),s_date DATE,p_id NUMBER(10),CONSTRAINT pk_sid PRIMARY KEY(s_id));
DESC supplier;
```

Results Explain Describe Saved SQL History

Object Type TABLE Object SUPPLIER

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
SUPPLIER	S_ID	Number	-	10	0	1	-	-	-
	S_NAME	Varchar2	25	-	-	-	✓	-	-
	GENDER	Varchar2	8	-	-	-	✓	-	-
	S_DATE	Date	7	-	-	-	✓	-	-
	P_ID	Number	-	10	0	-	✓	-	-
1-5									

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3.Modify the attribute product_finish in the product table to product_material.

ALTER TABLE product RENAME COLUMN product_finish TO product_material;
DESC product;

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```
ALTER TABLE product RENAME COLUMN product_finish TO product_material;  
DESC product;
```

Results Explain Describe Saved SQL History

Object Type TABLE Object PRODUCT

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PRODUCT	PRODUCT_ID	Number	-	10	0	1	-	-	-
	PRODUCT_DESCRIPTION	Varchar2	50	-	-	-	✓	-	-
	PRODUCT_MATERIAL	Varchar2	10	-	-	-	✓	-	-
	PRODUCT_LINE_ID	Number	-	10	0	-	✓	-	-

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4.Add an attribute called price in the Orderline table

ALTER TABLE orderline ADD price NUMBER(10);
Desc orderline;

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```
ALTER TABLE orderline ADD price NUMBER(10);  
DESC orderline;
```

Results Explain Describe Saved SQL History

Object Type TABLE Object ORDERLINE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORDERLINE	ORDER_ID	Number	-	10	0	1	-	-	-
	PRODUCT_ID	Number	-	10	0	-	✓	-	-
	ORDERED QUANTITY	Number	-	10	0	-	✓	-	-
	PRICE	Number	-	10	0	-	✓	-	-

1 - 4

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5.Rename orderline to orderquantity

```
ALTER TABLE orderline RENAME TO orderquantity;  
DESC orderquantity;
```

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```
ALTER TABLE orderline RENAME TO orderquantity;  
DESC orderquantity;
```

Results Explain Describe Saved SQL History

Object Type TABLE Object ORDERQUANTITY

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORDERQUANTITY	ORDER_ID	Number	-	10	0	1	-	-	-
	PRODUCT_ID	Number	-	10	0	-	✓	-	-
	ORDERED_QUANTITY	Number	-	10	0	-	✓	-	-
	PRICE	Number	-	10	0	-	✓	-	-

1 - 4

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6.Add a check constraint to ordered_quantity column and check that quantity is above 10

```
ALTER TABLE orderquantity ADD CONSTRAINT chk_orderedquantity  
CHECK(ordered_quantity>10);  
DESC orderquantity;
```

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```
ALTER TABLE orderquantity ADD CONSTRAINT chk_orderedquantity CHECK(ordered_quantity>10);  
DESC orderquantity;
```

Results Explain Describe Saved SQL History

Object Type TABLE Object ORDERQUANTITY

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ORDERQUANTITY	ORDER_ID	Number	-	10	0	1	-	-	-
	PRODUCT_ID	Number	-	10	0	-	✓	-	-
	ORDERED_QUANTITY	Number	-	10	0	-	✓	-	-
	PRICE	Number	-	10	0	-	✓	-	-

1 - 4

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7. Add a not null constraint to customer_name attribute.

ALTER TABLE customer MODIFY customer_name NOT NULL; DESC customer;

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```
ALTER TABLE customer MODIFY customer_name NOT NULL;
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	CUSTOMER_ID	Number	-	10	0	1	-	-	-
	CUSTOMER_NAME	Varchar2	25	-	-	-	-	-	-
	CUSTOMER_ADDRESS	Varchar2	50	-	-	-	✓	-	-
	CITY	Varchar2	10	-	-	-	✓	-	-
	STATE	Varchar2	20	-	-	-	✓	-	-
	POSTAL_CODE	Varchar2	6	-	-	-	✓	-	-
1 - 6									

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8. the structure of the customer and order table

DESC customer;

DESC orders;

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```
DESC customer;
DESC orders;
```

Results Explain Describe Saved SQL History

Object Type TABLE Object CUSTOMER

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CUSTOMER	CUSTOMER_ID	Number	-	10	0	1	-	-	-
	CUSTOMER_NAME	Varchar2	25	-	-	-	-	-	-
	CUSTOMER_ADDRESS	Varchar2	50	-	-	-	✓	-	-
	CITY	Varchar2	10	-	-	-	✓	-	-
	STATE	Varchar2	20	-	-	-	✓	-	-
	POSTAL_CODE	Varchar2	6	-	-	-	✓	-	-
1 - 6									

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```
DESC customer;
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_ID	Number	-	10	0	1	-	-	-
	ORDER_DATE	Date	7	-	-	-	✓	-	-
	CUSTOMER_ID	Number	-	10	0	-	✓	-	-

1 - 3

Language: en-us

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9.Insert the above values in to the corresponding table.

```
INSERT INTO customer VALUES (1, 'John Doe', '392 Sunset Blvd.', 'New York',
'NT','10059');
INSERT INTO customer VALUES (2, 'Mary Smith', '6900 Main St.', 'SanFrancis',
'CA','94032');
INSERT INTO customer VALUES (3, 'Richard Newman', '2040 Riverside Rd.', 'San Diego',
'CA','92010');
INSERT INTO customer VALUES (4, 'Cathy Cook', '4010 Speedway', 'Tucson',
'AZ','85719');
INSERT INTO orders VALUES (100,TO_DATE('01-OCT-2014','DD-MONYYYY'),1);
INSERT INTO orders VALUES (101, TO_DATE('01-OCT-2014','DD-MON-YYYY'),
2);
INSERT INTO orders VALUES (102, TO_DATE('02-OCT-2014','DD-MON-YYYY'),
3);
INSERT INTO orders VALUES (103, TO_DATE('03-OCT-2014','DD-MON-YYYY'),
2);
INSERT INTO orders VALUES (104, TO_DATE('10-OCT-2014','DD-MON-YYYY'),
1);
INSERT INTO orders VALUES (105, TO_DATE('10-OCT-2014','DD-MON-YYYY'),
4);
INSERT INTO orders VALUES (106, TO_DATE('10-OCT-2014','DD-MON-YYYY'),
2);
INSERT INTO orders VALUES (107,TO_DATE('10-OCT-2014','DD-MON-YYYY'),
1);
INSERT INTO
product(product_id,product_description,product_material,product_line_id)VALUES
(1000, 'Office Desk', 'Cherry',10);
INSERT INTO
product(product_id,product_description,product_material,product_line_id)VALUES
(1001, 'Manager"s Desk', 'Red Oak',10);
INSERT INTO
product(product_id,product_description,product_material,product_line_id)VALUES
(2000, 'Office Chair', 'Cherry',20);
```



```

INSERT INTO
product(product_id,product_description,product_material,product_line_id)VALUES
(2001, 'Manager"s Desk', 'NaturalOak',20);
INSERT INTO
product(product_id,product_description,product_material,product_line_id)VALUES
(3000, 'Book Shelf', 'NaturalAsh',30);
INSERT INTO
product(product_id,product_description,product_material,product_line_id)VALUES
(3001, 'Duplex Book Shelf', 'White Ash',30);
INSERT INTO
product(product_id,product_description,product_material,product_line_id)VALUES
(4000, 'Table Lamp', 'NaturalAsh',40);
INSERT INTO
product(product_id,product_description,product_material,product_line_id)VALUES
(4001, 'Duplex Table Lamp', 'White Ash',40);
INSERT INTO
product(product_id,product_description,product_material,product_line_id)VALUES
(9999, 'Keyboard', 'Plastic',50);
INSERT INTO orderquantity VALUES (100, 4000, 10, 10000);
INSERT INTO orderquantity VALUES (101, 1000, 20, 15000);
INSERT INTO orderquantity VALUES (101, 2000, 20, 20000);
INSERT INTO orderquantity VALUES (102, 3000, 15, 23500); INSERT INTO
orderquantity VALUES (102, 2000, 12, 34560);
INSERT INTO orderquantity VALUES (103, 4001, 14, 1000);
INSERT INTO orderquantity VALUES (104, 2000, 10, 2000);
INSERT INTO orderquantity VALUES (105, 3001, 20, 30005);
INSERT INTO orderquantity VALUES (106, 3000, 12, 20500);
INSERT INTO orderquantity VALUES (106, 4000, 11, 30000);
INSERT INTO orderquantity VALUES (107, 4001, 5, 40100);
INSERT INTO supplier VALUES (1,'aaa','M',TO_DATE('11-NOV-2014','DD-
MONYYYY'),1000);
INSERT INTO supplier VALUES (2, 'bbb', 'F',TO_DATE('01-NOV-2014','DD-MONYYYY'),
2000);
INSERT INTO supplier VALUES (2, 'bbb', 'F',TO_DATE('01-NOV-2014','DD-MONYYYY'),
2001);
INSERT INTO supplier VALUES (3,'ccc','M',TO_DATE('20-OCT-2014','DD-
MONYYYY'),9999);
INSERT INTO supplier VALUES (4,'ddd','F',TO_DATE('11-NOV-2014','DD-
MONYYYY'),4001);
INSERT INTO supplier VALUES (4, 'ddd', 'F',TO_DATE('05-NOV-2014','DD-MONYYYY'),
4000);
INSERT INTO supplier VALUES (5, 'eee','M',TO_DATE('13-NOV-2014','DD-MONYYYY'),
1001);

```


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```
desc Customer;
desc orderquantity;
```

```
Insert into Customer values(1,'John Doe', '392 Sunset Blvd.', 'New York', 'NT',10059);
Insert into Customer values(2, 'Mary Smith', '6900 Main St.', 'San Francisco', 'CA','94032');
Insert into Customer values(3, 'Richard Newman', '2040 Riverside Rd.', 'San Diego', 'CA','92010');
Insert into Customer values(4, 'Cathy Cook', '4010 Speedway', 'Tucson', 'AZ','85719');
```

```
select * from customer;
```

```
Insert into Orderquantity values(100, 4000, 10,1500);
Insert into Orderquantity values(101, 1000, 20,2000);
Insert into Orderquantity values(101, 2000, 20,3466);
```

Results Explain Describe Saved SQL History

CUSTOMER_ID	CUSTOMER_NAME	CUSTOMER_ADDRESS	CITY	STATE	POSTAL_CODE
1	John Doe	392 Sunset Blvd.	New York	NT	10059
2	Mary Smith	6900 Main St.	San Francisco	CA	10032
3	Richard Newman	2040 Riverside Rd.	San Diego	CA	92010
4	Cathy Cook	4010 Speedway	Tucson	AZ	85719

4 rows returned in 0.00 seconds

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```
Insert into Orderquantity values(100, 4000, 10,1500);
Insert into Orderquantity values(101, 1000, 20,2000);
Insert into Orderquantity values(101, 2000, 20,3466);
Insert into Orderquantity values(102, 3000, 15,1999);
Insert into Orderquantity values(102, 2000, 12,1000);
Insert into Orderquantity values(103, 4001, 14,2000);
Insert into Orderquantity values(104, 2000, 10,3477);
Insert into Orderquantity values(105, 3001, 20,3667);
Insert into Orderquantity values(106, 3000, 12,4500);
Insert into Orderquantity values(106, 4000, 11,1000);
Insert into Orderquantity values(107, 4001, 5,5670);
```

```
select * from orderquantity;
```

```
Insert into product values(1000, 'Office Desk', 'Cherry', 95.0);
```

Results Explain Describe Saved SQL History

ORDER_ID	PRODUCT_ID	ORDER_QTY	PRICE
101	1000	20	2000
102	3000	15	1999
103	4001	14	2000
105	3001	20	3667
106	3000	12	4500

5 rows returned in 0.00 seconds

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```
Insert into product values(2001, 'Manager's Desk', 'Natural Oak', 129.0);
Insert into product values(3000, 'Book Shelf', 'Natural Ash', 35.0);
Insert into product values(3001, 'Duplex Book Shelf', 'White Ash', 80.0);
Insert into product values(4000, 'Table Lamp', 'Natural Ash', 15.0);
Insert into product values(4001, 'Duplex Table Lamp', 'White Ash', 40.0);
Insert into product values(9999, 'Keyboard', 'Plastic', 20.0);
```

```
select * from product;
```

```
Insert into Orders values(100, '01-OCT-14', 1 );
Insert into Orders values( 101, '01-OCT-14', 2);
Insert into Orders values( 102, '02-OCT-14', 3);
Insert into Orders values( 103, '03-OCT-14', 2);
Insert into Orders values(104, '10-OCT-14', 1 );
Insert into Orders values(105, '10-OCT-14', 4 );
Insert into Orders values(106, '10-OCT-14', 2 );
```

Results Explain Describe Saved SQL History

PRODUCT_ID	PRODUCT_DESCRIPTION	PRODUCT_MATERIAL	PRODUCT_LINE_ID	PRODUCT_QTY
1000	Office Desk	Cherry	95	12
1001	Manager's Desk	Red Oak	199	23
2000	Office Chair	Cherry	75	32
2001	Manager's Desk	Natural Oak	129	23
3000	Book Shelf	Natural Ash	35	32
3001	Duplex Book Shelf	White Ash	80	10
4000	Table Lamp	Natural Ash	15	32
4001	Duplex Table Lamp	White Ash	40	11
9999	Keyboard	Plastic	20	12

9 rows returned in 0.00 seconds

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```
Insert into product values(9999, 'Keyboard', 'Plastic', 20.0);
```

```
Insert into Orders values(100, '01-OCT-14', 1 );
Insert into Orders values( 101, '01-OCT-14', 2);
Insert into Orders values( 102, '02-OCT-14', 3);
Insert into Orders values( 103, '03-OCT-14', 2);
Insert into Orders values(104, '10-OCT-14', 1 );
Insert into Orders values(105, '10-OCT-14', 4 );
Insert into Orders values(106, '10-OCT-14', 2 );
Insert into Orders values( 107, '10-OCT-14', 1);
```

```
select * from orders;
```

```
Insert into Supplier values ('S1', 'aaa', 'M', '11-NOV-14', 1000 );
```

Results Explain Describe Saved SQL History

ORDER_ID	ORDER_DATE	CUSTOMERID
100	01-OCT-14	1
101	01-OCT-14	2
102	02-OCT-14	3
103	03-OCT-14	2
105	10-OCT-14	4
106	10-OCT-14	2
107	10-OCT-14	1
108	10-NOV-14	1

8 rows returned in 0.02 seconds

User: SYSTEM

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```
Insert into Supplier values ( 'S1', 'aaa', 'M', '11-NOV-14', 1000 );
Insert into Supplier values ( 'S2', 'bbb', 'F', '01-NOV-14', 2000);
Insert into Supplier values ( 'S2', 'bbb', 'F', '01-NOV-14', 2001);
Insert into Supplier values ( 'S3', 'ccc', 'M', '20-OCT-14', 9999);
Insert into Supplier values ( 'S4', 'ddd', 'F', '05-NOV-14', 4001);
Insert into Supplier values ( 'S4', 'ddd', 'F', '05-NOV-14', 4000);
Insert into Supplier values ( 'S5', 'eee', 'M', '13-NOV-14', 1001);
```

```
select * from supplier;
```

Results Explain Describe Saved SQL History

S_ID	SNAME	GENDER	S_DATE	P_ID
S1	aaa	M	11-NOV-14	1000
S2	bbb	F	01-NOV-14	2000
S3	ccc	M	20-OCT-14	9999
S4	ddd	F	05-NOV-14	4001
S5	eee	M	13-NOV-14	1001

5 rows returned in 0.03 seconds

Language: en-gb

10.Store the data permanently in stable storage COMMIT;

Statement processed.

0.19 seconds

11.Copy the customer table to a new table called 'customer1'. Rename the new table as customer1.

```
SELECT * FROM supplier;
```

```
CREATE TABLE customer1 AS (SELECT * FROM customer);
```

```
SELECT * FROM customer1;
```

Results Explain Describe Saved SQL History

CUSTOMER_ID	CUSTOMER_NAME	CUSTOMER_ADDRESS	CITY	STATE	PSTAL_CODE
1	John Doe	392 Sunset Blvd.	New York	NT	10059
2	Mary Smith	6900 Main St.	SanFrancis	CA	94032
3	Richard Newman	2040 Riverside Rd.	San Diego	CA	92010
4	Cathy Cook	4010 Speedway	Tucson	AZ	85719

12. Grant select privilege to user1 on Order table

13. Try to insert values into Order table from user1 and state what happen

14. Grant insert privilege on Order table to user1

15. Try to delete values from Order table from user1 and state what happens

16. Try to insert values into Order table from user1 and state what happens.

18 .revoke all privileges from user1 on Order table.

CREATE USER user1 IDENTIFIED BY ab;

GRANT select ON orders TO user1;

GRANT insert ON orders TO user1;

REVOKE ALL ON orders FROM user1;

19. Remove all data's from the customer1 table.

20. Drop the structure of the customer1 table.

TRUNCATE TABLE customer1;

DROP TABLE customer1;

Table truncated.

0.56 seconds

no data found

DROP TABLE customer1;

SELECT * FROM customer WHERE city='New York';

UPDATE customer SET pstal_code='10032' WHERE customer_name='Mary Smith';

SELECT * FROM customer;

Results Explain Describe Saved SQL History

ORA-00942: table or view does not exist

Result:

SQL queries using DDL and DCL commands are successfully executed.