

Q1)

CREATE TABLE "PRODUCTS"

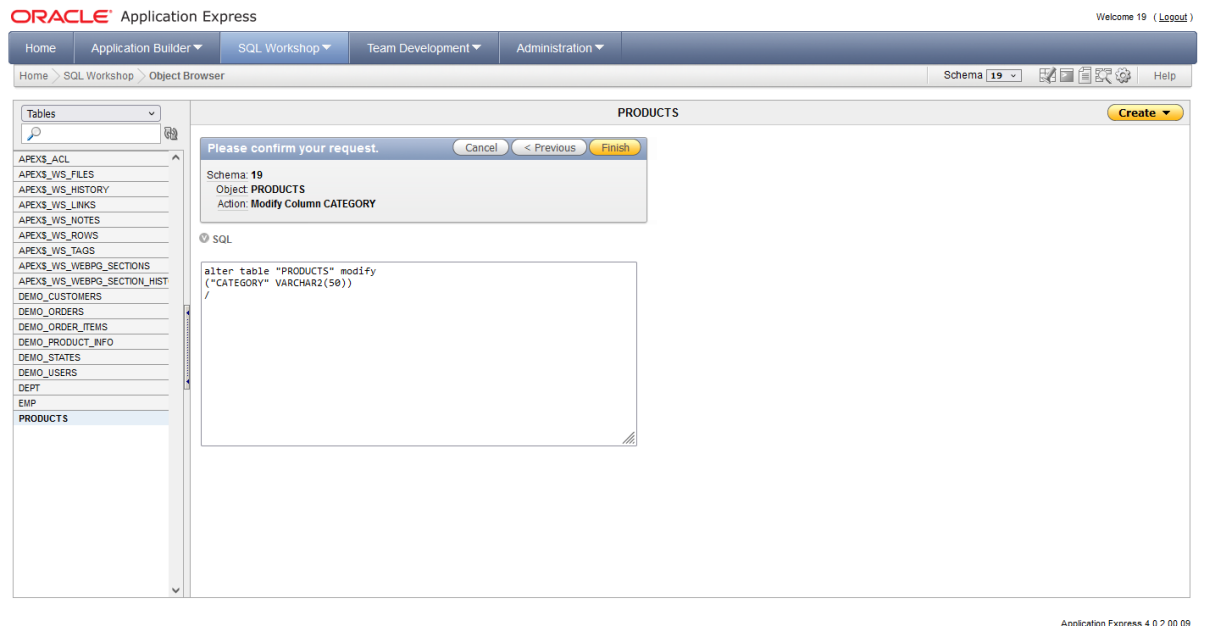
```
(  "PRODUCTID" NUMBER,  
    "PRODUCTNAME" VARCHAR2(50),  
    "PRICE" NUMBER(2,10),  
    "CATEGORY" VARCHAR2(30),  
    "STOCK" NUMBER(5,0)  
);
```

The screenshot displays the Oracle Application Express (APEX) interface. The top navigation bar includes tabs for Home, Application Builder, SQL Workshop, Team Development, and Administration. The main content area is titled "PRODUCTS" and shows a table definition. The table has five columns: PRODUCTID (NUMBER), PRODUCTNAME (VARCHAR2(50)), PRICE (NUMBER(2,10)), CATEGORY (VARCHAR2(30)), and STOCK (NUMBER(5,0)). The interface also shows a list of tables on the left, including APEX_ACL, APEX_WS_FILES, APEX_WS_HISTORY, APEX_WS_LINKS, APEX_WS_NOTES, APEX_WS_ROWS, APEX_WS_TAGS, APEX_WS_WEBPG_SECTIONS, APEX_WS_WEBPG_SECTION_HIST, DEMO_CUSTOMERS, DEMO_ORDERS, DEMO_ORDER_ITEMS, DEMO_PRODUCT_INFO, DEMO_STATES, DEMO_USERS, DEPT, EMP, and PRODUCTS. The bottom status bar indicates the workspace is "19 User: 19" and the language is "en".

Column Name	Data Type	Nullable	Default	Primary Key
PRODUCTID	NUMBER	Yes	-	-
PRODUCTNAME	VARCHAR2(50)	Yes	-	-
PRICE	NUMBER(2,10)	Yes	-	-
CATEGORY	VARCHAR2(30)	Yes	-	-
STOCK	NUMBER(5,0)	Yes	-	-

Q2)

- i) alter table "PRODUCTS" modify
("CATEGORY" VARCHAR2(50))



- ii) alter table "PRODUCTS" add
("SUPPLIEREMAIL" VARCHAR2(40))

Please confirm your request.
Cancel
< Previous
Finish

Schema: **19**
Object: **PRODUCTS**
Action: **Add Column SUPPLIEREMAIL**

SQL

```
alter table "PRODUCTS" add
("SUPPLIEREMAIL" VARCHAR2(40))
/
```

iii) alter table "PRODUCTS" drop column "STOCK"

Column Name	Data Type	Nullable	Default	Primary Key
PRODUCTID	NUMBER	Yes	-	-
PRODUCTNAME	VARCHAR2(50)	Yes	-	-
PRICE	NUMBER(2,10)	Yes	-	-
CATEGORY	VARCHAR2(50)	Yes	-	-
SUPPLIEREMAIL	VARCHAR2(40)	Yes	-	-
				1 - 5

[Download](#)

iv) alter table "PRODUCTS" add ("ADDEDDATE" DATE)

Column Name	Data Type	Nullable	Default	Primary Key
PRODUCTID	NUMBER	Yes	-	-
PRODUCTNAME	VARCHAR2(50)	Yes	-	-
PRICE	NUMBER(2,10)	Yes	-	-
CATEGORY	VARCHAR2(50)	Yes	-	-
SUPPLIEREMAIL	VARCHAR2(40)	Yes	-	-
ADDEDDATE	DATE	Yes	-	-
				1 - 6

[Download](#)

Q3)

i)

ORACLE Application Express Welcome 19 (Logout)

Home Application Builder SQL Workshop Team Development Administration

Home SQL Workshop SQL Commands Schema 19

☒ Autocommit Rows 10 Save Run

```
ALTER TABLE PRODUCTS
ADD CONSTRAINT products_pk PRIMARY KEY (PRODUCTID);
```

Results Explain Describe Saved SQL History

Table altered.

0.05 seconds

ALTER TABLE PRODUCTS

ADD CONSTRAINT products_pk PRIMARY KEY (PRODUCTID);

ii) alter table PRODUCTS add constraints email_uniq UNIQUE(supplieremail);

Constraint	Type	Search Condition	Related Constraint	Columns	Delete Rule	Status	Last Change	Index	Invalid
PRODUCTS_PK	Primary	-	-	PRODUCTID	-	ENABLED	12/18/2024 09:20:07 AM	PRODUCTS_PK	-
EMAIL_UNIQ	Unique	-	-	SUPPLIEREMAIL	-	ENABLED	12/18/2024 09:24:34 AM	EMAIL_UNIQ	-
1 - 2									

4)

```
INSERT INTO PRODUCTS VALUES ( 2,'asdf', 66.21, 'tech', 'gugu@gaga.com',  
TO_DATE('2024-12-18', 'YYYY-MM-DD'));
```

PRODUCTID	PRODUCTNAME	PRICE	CATEGORY	SUPPLIEREMAIL	ADDEDDATE
1	laptop	66.21	tech	gugu@gaga.com	12/18/2024
2	asdf	66.21	tech	gugu@gaa.com	12/18/2024
3	asdf	66.21	tech	gu@gaa.com	12/18/2024
4	asdf	66.21	tech	guu@gaa.com	12/18/2024
5	asdf	66.21	tech	ggu@gaa.com	12/18/2024
6	asdf	66.21	tech	gud@gaa.com	12/18/2024

6 rows returned in 0.01 seconds [Download](#)

Table truncated.

0.36 seconds

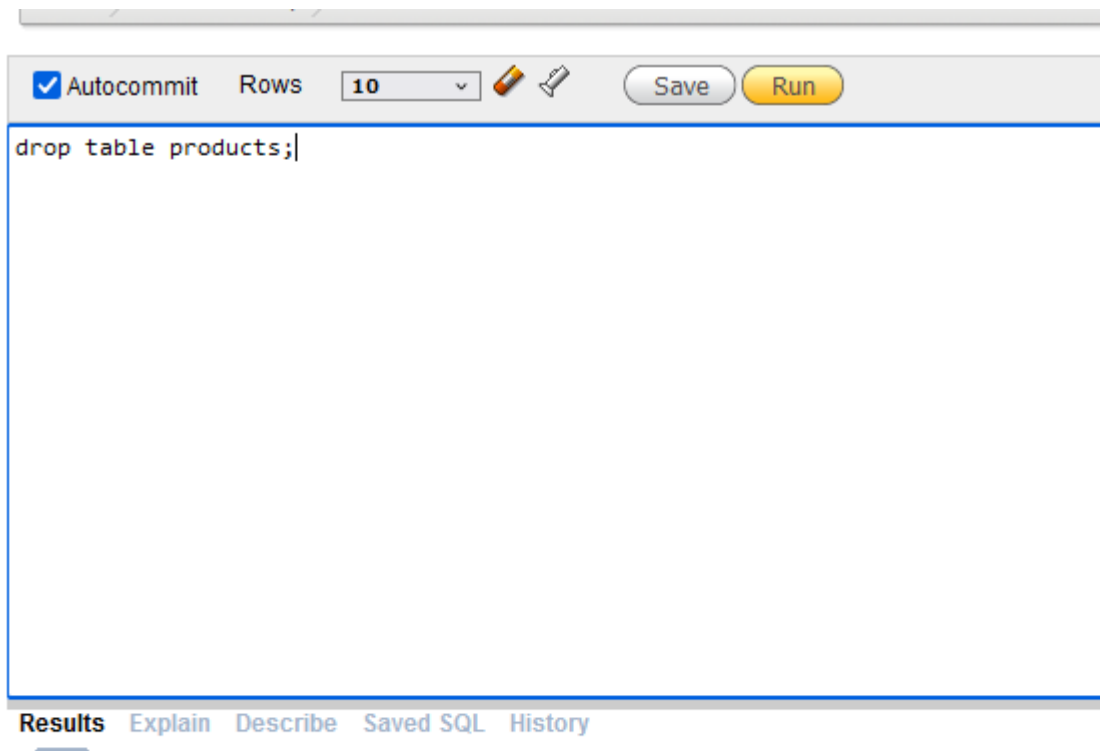


Table dropped.

0.21 seconds

5)

Recreate the table

```
CREATE TABLE "PRODUCTS"
```

```
(  "PRODUCTID" NUMBER ,  
    "PRODUCTNAME" VARCHAR2(50),  
    "PRICE" NUMBER(10,2),  
    "CATEGORY" VARCHAR2(30),  
    "ADDEDDATE" DATE,  
    CONSTRAINT pk PRIMARY KEY(PRODUCTID)  
);
```

```
// add the 10 rows
```

INSERT INTO PRODUCTS VALUES (1, 'laptop', 499.99, 'tech', TO_DATE('2024-01-15', 'YYYY-MM-DD'));

INSERT INTO PRODUCTS VALUES (2, 'smartphone', 299.49, 'tech', TO_DATE('2024-02-20', 'YYYY-MM-DD'));

INSERT INTO PRODUCTS VALUES (3, 'tablet', 150.89, 'tech', TO_DATE('2024-03-10', 'YYYY-MM-DD'));

INSERT INTO PRODUCTS VALUES (4, 'headphones', 79.99, 'audio', TO_DATE('2024-04-05', 'YYYY-MM-DD'));

INSERT INTO PRODUCTS VALUES (5, 'keyboard', 49.99, 'accessory', TO_DATE('2024-05-25', 'YYYY-MM-DD'));

INSERT INTO PRODUCTS VALUES (6, 'monitor', 189.75, 'tech', TO_DATE('2024-06-12', 'YYYY-MM-DD'));

INSERT INTO PRODUCTS VALUES (7, 'mouse', 29.99, 'accessory', TO_DATE('2024-07-30', 'YYYY-MM-DD'));

INSERT INTO PRODUCTS VALUES (8, 'printer', 120.59, 'office', TO_DATE('2024-08-15', 'YYYY-MM-DD'));



INSERT INTO PRODUCTS VALUES (9, 'webcam', 45.79, 'tech', TO_DATE('2024-09-02', 'YYYY-MM-DD'));

INSERT INTO PRODUCTS VALUES (10, 'speaker', 99.99, 'audio', TO_DATE('2024-10-18', 'YYYY-MM-DD'));

PRODUCTID	PRODUCTNAME	PRICE	CATEGORY	ADDEDDATE
2	smartphone	299.49	tech	02/20/2024
3	tablet	150.89	tech	03/10/2024
4	headphones	79.99	audio	04/05/2024
5	keyboard	49.99	accessory	05/25/2024
6	monitor	189.75	tech	06/12/2024
7	mouse	29.99	accessory	07/30/2024
8	printer	120.59	office	08/15/2024
9	webcam	45.79	tech	09/02/2024
10	speaker	99.99	audio	10/18/2024
1	laptop	499.99	tech	01/15/2024

10 rows returned in 0.00 seconds

6)

☐ Autocommit Rows 10   Save Run

```
select * from products;
```

Results

Explain

Describe



Saved SQL

History

PRODUCTID	PRODUCTNAME	PRICE	CATEGORY	ADDEDDATE
2	smartphone	299.49	tech	02/20/2024
3	tablet	150.89	tech	03/10/2024
4	headphones	79.99	audio	04/05/2024
5	keyboard	49.99	accessory	05/25/2024
6	monitor	189.75	tech	06/12/2024
7	mouse	29.99	accessory	07/30/2024
8	printer	120.59	office	08/15/2024
9	webcam	45.79	tech	09/02/2024
10	speaker	99.99	audio	10/18/2024
1	laptop	499.99	tech	01/15/2024

10 rows returned in 0.00 seconds

2)

☐ Autocommit Rows   Save Run



```
select * from products where category = 'tech';
```

Results Explain Describe Saved SQL History

PRODUCTID	PRODUCTNAME	PRICE	CATEGORY	ADDEDDATE
2	smartphone	299.49	tech	02/20/2024
3	tablet	150.89	tech	03/10/2024
6	monitor	189.75	tech	06/12/2024
9	webcam	45.79	tech	09/02/2024
1	laptop	499.99	tech	01/15/2024

5 rows returned in 0.00 seconds

3)

☐ Autocommit Rows **10**   Save Run

```
select * from products where price > 300;
```

Results Explain Describe Saved SQL History

PRODUCTID	PRODUCTNAME	PRICE	CATEGORY	ADDEDDATE
1	laptop	499.99	tech	01/15/2024

1 rows returned in 0.00 seconds



4)

```
update PRODUCTS  
set category = 'expensive'  
where price > 150 ;
```

Results Explain Describe Saved SQL History

4 row(s) updated.

5)

☐ Autocommit Rows 10   Save Run

```
update PRODUCTS
set price = 420420
where productid = 1;
```

Results [Explain](#) [Describe](#) [Saved SQL](#) [History](#)

1 row(s) updated.

0.02 seconds

PRODUCTID	PRODUCTNAME	PRICE	CATEGORY	ADDEDDATE
2	smartphone	299.49	tech	02/20/2024
3	tablet	150.89	tech	03/10/2024
4	headphones	79.99	audio	04/05/2024
5	keyboard	49.99	accessory	05/25/2024
6	monitor	189.75	tech	06/12/2024
7	mouse	29.99	accessory	07/30/2024
8	printer	120.59	office	08/15/2024
9	webcam	45.79	tech	09/02/2024
10	speaker	99.99	audio	10/18/2024
1	laptop	420420	tech	01/15/2024

10 rows returned in 0.00 seconds

6)

```
UPDATE PRODUCTS
SET price = price * 1.10;
```

Results Explain Describe Saved SQL History



10 row(s) updated.

0.00 seconds

PRODUCTID	PRODUCTNAME	PRICE	CATEGORY	ADDEDDATE
2	smartphone	329.44	expensive	02/20/2024
3	tablet	165.98	expensive	03/10/2024
4	headphones	87.99	audio	04/05/2024
5	keyboard	54.99	accessory	05/25/2024
6	monitor	208.73	expensive	06/12/2024
7	mouse	32.99	accessory	07/30/2024
8	printer	132.65	office	08/15/2024
9	webcam	50.37	tech	09/02/2024
10	speaker	109.99	audio	10/18/2024
1	laptop	462462	expensive	01/15/2024

10 rows returned in 0.00 seconds

7)

☐ Autocommit Rows **10**   Save Run

```
delete from products
where price < 87;
```

Results Explain Describe Saved SQL History

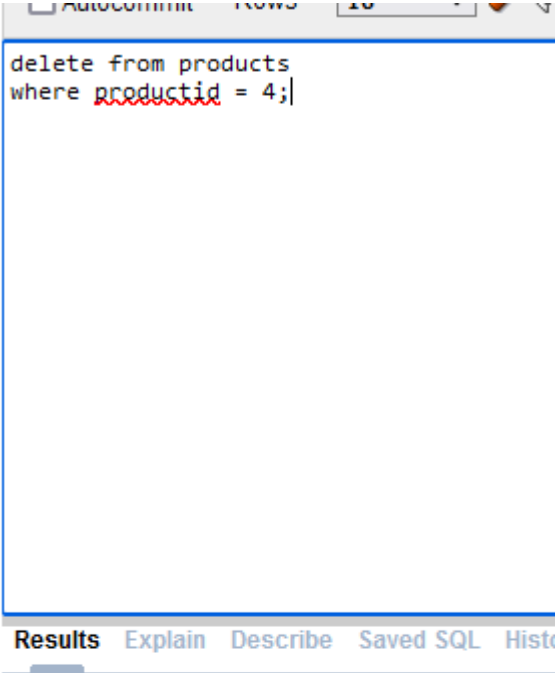
3 row(s) deleted.

0.00 seconds

PRODUCTID	PRODUCTNAME	PRICE	CATEGORY	ADDEDDATE
2	smartphone	329.44	expensive	02/20/2024
3	tablet	165.98	expensive	03/10/2024
4	headphones	87.99	audio	04/05/2024
6	monitor	208.73	expensive	06/12/2024
8	printer	132.65	office	08/15/2024
10	speaker	109.99	audio	10/18/2024
1	laptop	462462	expensive	01/15/2024

7 rows returned in 0.00 seconds

8)



The screenshot shows a SQL IDE window with a toolbar at the top containing buttons for 'Autocommit', 'Rows', and a numeric value '10'. The main text area contains the SQL statement: `delete from products` on the first line and `where productid = 4;` on the second line. The word 'productid' is underlined with a red squiggly line. Below the text area is a horizontal tab bar with five tabs: 'Results' (which is selected and highlighted), 'Explain', 'Describe', 'Saved SQL', and 'History'.

```
delete from products
where productid = 4;
```



1 row(s) deleted.

0.00 seconds

9)

☐ Autocommit Rows

10

```
delete from products
where category = 'expensive';|
```

Results

Explain

Describe

Saved SQL

History

4 row(s) deleted.

0.00 seconds

PRODUCTID	PRODUCTNAME	PRICE	CATEGORY	ADDEDDATE
8	printer	132.65	office	08/15/2024
10	speaker	109.99	audio	10/18/2024

2 rows returned in 0.00 seconds