

1. Create the Products Table

Create a table named Products with the following columns:

ProductID: NUMBER

ProductName: VARCHAR2(50)

Price: NUMBER(10, 2)

Category: VARCHAR2(30)

Stock: NUMBER(5)

```
CREATE TABLE Products (
```

```
ProductID NUMBER,
```

```
ProductName VARCHAR(50),
```

```
Price NUMBER(10, 2)
```

```
Category VARCHAR(30),
```

```
Stock NUMBER(5)
```

2. Modify the Table Structure

Perform the following modifications on the Products table: 1.

Change the data type of Category from VARCHAR2(30) to VARCHAR2(50).

```
ALTER TABLE Products MODIFY Category VARCHAR(50);
```

2) Add a new column SupplierEmail of type VARCHAR2(40).

| Column Name | Data Type | Nullable | Default | Primary Key |
|---------------|--------------|----------|---------|-------------|
| PRODUCTID | NUMBER | Yes | - | - |
| PRODUCTNAME | VARCHAR2(50) | Yes | - | - |
| PRICE | NUMBER(10,2) | Yes | - | - |
| CATEGORY | VARCHAR2(50) | Yes | - | - |
| STOCK | NUMBER(5,0) | Yes | - | - |
| SUPPLIEREMAIL | VARCHAR2(40) | Yes | - | - |
| 1 - 6 | | | | |

ALTER TABLE Products ADD SupplierEmail VARCHAR2(40);

3) Drop the Stock column from the table.

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

ALTER TABLE Products DROP COLUMN Stock;

4) Add a new column AddedDate with the data type DATE.

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

ALTER TABLE Products ADD AddedDate DATE;

3. Add Constraints

Add constraints to ensure data integrity:

1. Add a primary key constraint on the ProductID column (if not already added).

| Column Name | Data Type | Nullable | Default | Primary Key |
|---------------|--------------|----------|---------|-------------|
| PRODUCTID | NUMBER | No | - | 1 |
| PRODUCTNAME | VARCHAR2(50) | Yes | - | - |
| PRICE | NUMBER(10,2) | Yes | - | - |
| CATEGORY | VARCHAR2(50) | Yes | - | - |
| SUPPLIEREMAIL | VARCHAR2(40) | Yes | - | - |
| ADDEDDATE | DATE | Yes | - | - |
| 1 - 6 | | | | |

ALTER TABLE Products ADD CONSTRAINT PK_Products PRIMARY KEY (ProductID);

2. Add a unique constraint to the SupplierEmail column.

| Constraint | Type | Search Condition | Related Constraint | Columns | Delete Rule | Status | Last Change | Index | Invalid |
|------------------|---------|------------------|--------------------|---------------|-------------|---------|------------------------|------------------|---------|
| PK_PRODUCTS | Primary | - | - | PRODUCTID | - | ENABLED | 12/16/2024 03:52:01 PM | PK_PRODUCTS | - |
| UQ_SUPPLIEREMAIL | Unique | - | - | SUPPLIEREMAIL | - | ENABLED | 12/16/2024 03:55:31 PM | UQ_SUPPLIEREMAIL | - |
| 1 - 2 | | | | | | | | | |

ALTER TABLE Products ADD CONSTRAINT UQ_SupplierEmail UNIQUE (SupplierEmail);

4. Populate and Explore Deleting/Truncating Tables

Perform the following actions and observe the differences:

1. Insert a few rows into the Products table to test the table structure and constraints.

| EDIT | PRODUCTID | PRODUCTNAME | PRICE | CATEGORY | SUPPLIEREMAIL | ADDEDDATE |
|---|-----------|-------------|-------|----------|-----------------|------------|
|  | 1 | soap | 30 | washing | piya@gmail.com | 12/16/2024 |
|  | 2 | detergent | 40 | washing | jalmi@gmail.com | 12/16/2024 |
|  | 3 | spoon | 3 | crockery | laxmi@gmail.com | 12/16/2024 |
| row(s) 1 - 3 of 3 | | | | | | |

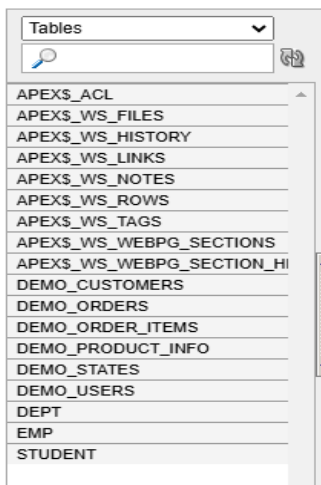
2. Use the TRUNCATE command to remove all rows from the table without deleting its structure.

| | | | | | | | | | | |
|------------------------------|-------------|------------|-------|-------------|--------|------------|-------------|----------|--------------|-----|
| Table | Data | Indexes | Model | Constraints | Grants | Statistics | UI Defaults | Triggers | Dependencies | SQL |
| Query | Count Rows | Insert Row | | | | | | | | |
| This table contains no data. | | | | | | | | | | |

TRUNCATE TABLE Products;

3. Use the DROP command to delete the Products table completely.

DROP TABLE Products;



5. Insert 10 Rows into the Products Table

| EDIT | PRODUCTID | PRODUCTNAME | PRICE | CATEGORY | STOCK |
|---------------------|-----------|-------------|-------|------------|-------|
| | 1 | soap | 30 | washing | 300 |
| | 2 | detergent | 35 | washing | 300 |
| | 3 | spoon | 3 | crockery | 350 |
| | 4 | plate | 10 | crockery | 340 |
| | 5 | glass | 10 | crockery | 330 |
| | 6 | bowl | 20 | crockery | 300 |
| | 7 | blanket | 100 | furnishing | 100 |
| | 8 | pillow | 79 | furnishing | 110 |
| | 9 | bed | 12000 | furnishing | 100 |
| | 10 | quilt | 10000 | furnishing | 120 |
| row(s) 1 - 10 of 10 | | | | | |

6. Perform Basic DML Commands

1. SELECT Command (Retrieve Data):

SELECT * FROM Products;

| PRODUCTID | PRODUCTNAME | PRICE | CATEGORY | STOCK |
|-----------|-------------|-------|------------|-------|
| 1 | soap | 30 | washing | 300 |
| 2 | detergent | 35 | washing | 300 |
| 3 | spoon | 3 | crockery | 350 |
| 4 | plate | 10 | crockery | 340 |
| 5 | glass | 10 | crockery | 330 |
| 6 | bowl | 20 | crockery | 300 |
| 7 | blanket | 100 | furnishing | 100 |
| 8 | pillow | 79 | furnishing | 110 |
| 9 | bed | 12000 | furnishing | 100 |
| 10 | quilt | 10000 | furnishing | 120 |