Q. Practice DML commands

A. INSERT:

Indentify:
In MySQL, we have AUTO_INCREMENT. Which is used to make a column values unique. It starts column value from 1 and so on by adding 1 by default on each row.

```
mysql> desc Product;
+-----------------+---------------+------+-----+---------+----------------+
| Field           | Type          | Null | Key | Default | Extra          |
+-----------------+---------------+------+-----+---------+----------------+
| productId       | int           | NO   | PRI | NULL    | auto_increment |
| productName     | varchar(40)   | NO   |     | NULL    |                |
| supplierId      | int           | YES  | MUL | NULL    |                |
| categoryId      | int           | YES  | MUL | NULL    |                |
| quantityPerUnit | varchar(20)   | YES  |     | NULL    |                |
| unitPrice       | decimal(10,2) | YES  |     | NULL    |                |
| unitsInStock    | smallint      | YES  |     | NULL    |                |
| unitsOnOrder    | smallint      | YES  |     | NULL    |                |
| reorderLevel    | smallint      | YES  |     | NULL    |                |
| discontinued    | char(1)       | NO   |     | NULL    |                |
+-----------------+---------------+------+-----+---------+----------------+
10 rows in set (0.00 sec)
```

Creating a table from another table:

```
mysql> create table table1 select * from Category;
Query OK, 8 rows affected (0.02 sec)
Records: 8  Duplicates: 0  Warnings: 0

mysql> select * from table1 limit by 10;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax
to use near 'by 10' at line 1
mysql> select * from table1 limit 10;
+------------+---------------+------------------------------------------------------------+-----------------+
| categoryId | categoryName  | description                                                | picture         |
+------------+---------------+------------------------------------------------------------+-----------------+
|          1 | Beverages     | Soft drinks, coffees, teas, beers, and ales                | NULL            |
|          2 | Condiments    | Sweet and savory sauces, relishes, spreads, and seasonings | NULL            |
|          3 | Confections   | Desserts, candies, and sweet breads                        | NULL            |
|          4 | Dairy Products | Cheeses                                                    | NULL            |
|          5 | Grains/Cereals | Breads, crackers, pasta, and cereal                        | NULL            |
|          6 | Meat/Poultry  | Prepared meats                                             | NULL            |
|          7 | Produce       | Dried fruit and bean curd                                  | NULL            |
|          8 | Seafood       | Seaweed and fish                                           | NULL            |
+------------+---------------+------------------------------------------------------------+-----------------+
8 rows in set (0.00 sec)
```

Inserting rows from one table to another:

```
mysql> insert into table1 (select * from Category);
Query OK, 8 rows affected (0.01 sec)
Records: 8  Duplicates: 0  Warnings: 0

mysql> select * from table1;
+------------+---------------+------------------------------------------------------------+-----------------+
| categoryId | categoryName  | description                                                | picture         |
+------------+---------------+------------------------------------------------------------+-----------------+
|          1 | Beverages     | Soft drinks, coffees, teas, beers, and ales                | NULL            |
|          2 | Condiments    | Sweet and savory sauces, relishes, spreads, and seasonings | NULL            |
|          3 | Confections   | Desserts, candies, and sweet breads                        | NULL            |
|          4 | Dairy Products | Cheeses                                                    | NULL            |
|          5 | Grains/Cereals | Breads, crackers, pasta, and cereal                        | NULL            |
|          6 | Meat/Poultry  | Prepared meats                                             | NULL            |
|          7 | Produce       | Dried fruit and bean curd                                  | NULL            |
|          8 | Seafood       | Seaweed and fish                                           | NULL            |
+------------+---------------+------------------------------------------------------------+-----------------+
8 rows in set (0.00 sec)
```

UPDATE:

```
mysql> update table1 set table1.categoryName='New Beverages' where categoryId=1;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from table1;
+------------+---------------+------------------------------------------------------------+-----------------+
| categoryId | categoryName  | description                                                | picture         |
+------------+---------------+------------------------------------------------------------+-----------------+
|          1 | New Beverages | Soft drinks, coffees, teas, beers, and ales                | NULL            |
|          2 | Condiments    | Sweet and savory sauces, relishes, spreads, and seasonings | NULL            |
|          3 | Confections   | Desserts, candies, and sweet breads                        | NULL            |
|          4 | Dairy Products | Cheeses                                                   | NULL            |
|          5 | Grains/Cereals | Breads, crackers, pasta, and cereal                       | NULL            |
|          6 | Meat/Poultry  | Prepared meats                                             | NULL            |
|          7 | Produce       | Dried fruit and bean curd                                  | NULL            |
|          8 | Seafood       | Seaweed and fish                                           | NULL            |
+------------+---------------+------------------------------------------------------------+-----------------+
8 rows in set (0.00 sec)
```

DELETE:

Truncate is used to delete all the records from a table.

```
mysql> truncate table table1;
Query OK, 0 rows affected (0.02 sec)

mysql> select * from table1 limit 10;
Empty set (0.01 sec)

mysql>
```

Difference between delete & truncate

delete from table1 where categoryId=1;

Delete is mostly Used to delete some records We use where clause to specify some rows to delete. If we do not use where clause it will delete all rows.	Truncate deletes all the records from the table To reset the table with zero records.
It delete particular data.	It deletes all data.

```
mysql> delete from table1 where categoryId=1;
Query OK, 1 row affected (0.00 sec)

mysql> select * from table1;
+------------+---------------+------------------------------------------------------------+-----------------+
| categoryId | categoryName  | description                                                | picture         |
+------------+---------------+------------------------------------------------------------+-----------------+
|          2 | Condiments    | Sweet and savory sauces, relishes, spreads, and seasonings | NULL            |
|          3 | Confections   | Desserts, candies, and sweet breads                        | NULL            |
|          4 | Dairy Products | Cheeses                                                   | NULL            |
|          5 | Grains/Cereals | Breads, crackers, pasta, and cereal                       | NULL            |
|          6 | Meat/Poultry  | Prepared meats                                             | NULL            |
|          7 | Produce       | Dried fruit and bean curd                                  | NULL            |
|          8 | Seafood       | Seaweed and fish                                           | NULL            |
+------------+---------------+------------------------------------------------------------+-----------------+
7 rows in set (0.00 sec)
```