2. Data Manipulation Language (DML) :

Data Manipulation languages are used in the query and to manipulate the existing objects in the database like tables.

The DML commands are

(i) Insert Command

(ii) Select Command

(iii) Update Command

(iv) Delete Command

(i) Insert Command :

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The Insert command is used to add one or more row to a table.

Syntax:

INSERT INTO <table name> VALUES (List of values);

* The values are separated by commas
* Values of data types Char,Varchar2, raw,long and date must be enclosed in single quotes.
* The value must be entered in the same order as they appear in the table.

INSERT INTO <table_name> VALUES (value1,value2,....);

INSERT INTO <table_name> (column1,column2,...) VALUES (value1,value2,.....);
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(ii) Select Command :

The select command is used to retrieve the stored data from a table.

SELECT *FROM <table_name>;
SELECT column1,column2,..... FROM <table_name>;
SELECT DISTINCT field_name FROM table_name;

Select Command using where,like, between,not between, in,not in,order by

SELECT *FROM <table_name> where field_name like '%_ _ characters';
SELECT *FROM <table_name> where field_name between 'a%' and 'q%';
SELECT *FROM <table_name> where field_name not between 'a%' and 'q%';

```
SELECT *FROM <table_name>where field_name in
('value1','value2');
SELECT *FROM <table_name>where field_name not
in ('value1','value2');
SELECT *FROM <table_name> order by  field_name ;

SELECT *FROM <table_name> order by  field_name
asc (or) desc;
```

3. UPDATE COMMAND:

The update command is used to update rows in a table. Specific rows can also be updated based on some condition.

Syntax :

UPDATE <table_name> SET column1 = expression,column2 = expression .

WHERE <search_condition>;

4. DELETE COMMAND :

The delete command is used to delete rows from tables.

Syntax:

DELETE from <table_name> WHERE <search_condition>;

(3) TRANSACTION CONTROL LANGAUGE :

All change made to the database is defined as a transaction. The transaction can be made permanent to a database only if they are committed. A transaction begins with an executable SQL statement (Eg. Insert, Update)

The two transaction control commands are

(i) commit (ii) rollback

(i) commit :

The commit command is used to make transaction changes permanent to the database.

Syntax:

SQL>COMMIT;

Savepoint :

Savepoint is not a command. It is only a marker. Savepoint are used to divide a length transaction into smaller ones.

Syntax:

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a) ROLLBACK:

This will rollback (undo) the entire transaction.

b) ROLLBACK TO SAVEPOINT S1;

This will undo all changes after the creation of the savepoint s1.
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INTEGRITY CONSTRAINTS :

An integrity constraint is a mechanism used by oracle to prevent invalid data entry into the table.

(i) Domain Integrity Constraints:

'Not Null' and 'check' constraints fall under this category.

Domain Integrity - 'NOT NULL‘

The default all columns in a table allow null values. It 'Not null' constraints is enforced on a column or set of columns in a table, it will not allow null values. 'Not null' constraint cannot be defined using alter table command when the table contain rows.

```
SQL> create table employee(empno number(5) constraint
cust not null, name varchar2(20));
```

where cust is the constraint name.

Check Constraint :

These are rules governed by logical expressions or boolean expressions. Check conditions cannot contain subqueries.

Entity Integrity Constraints:

Unique Constraints:

The unique key constraint is used to prevent the duplication of values within the rows of a specified column or a set of column in a table. This constraint can also allow null values.

Primary key Constraints:

The constraint avoids duplication of rows and does not allow null values. A table can have only one primary key.

Check Constraint :

These are rules governed by logical expressions or boolean expressions. Check conditions cannot contain subqueries.

Entity Integrity Constraints:

Unique Constraints:

The unique key constraint is used to prevent the duplication of values within the rows of a specified column or a set of column in a table. This constraint can also allow null values.

Primary key Constraints:

The constraint avoids duplication of rows and does not allow null values. A table can have only one primary key.

Default contraints:

This constraint updates default values of rows automatically.