

LAB 4 – DML STATEMENTS

INSERT

- Used to insert data into a table
- Note you have to use the correct inputs according to the datatypes when instantiating the table, if the datatype is an int then you have to enter numbers etc.

SYNTAX : INSERT INTO TABLE_NAME VALUES('value1', 'value2', 'value3', ... , 'value n');

- Notice
 - There must be parentheses when entering values in
 - Numerical entries do not require apostrophe
 - Attributes are separated by commas
 - A value is required for each column (Use NULL for unknown values)

Multiple Inserts:

- When doing a multiple inserts, all that is required is to separate the entire row entry with a comma i.e :
 - INSERT INTO TABLE_NAME VALUES('value1', 'value2', 'value3', ... , 'value n') , ('value1', 'value2', 'value3', ... , 'value n');

Entering for data for specific attributes(columns) only:

- INSERT INTO TABLE_NAME(ATTRIBUTE_NAME) VALUES('value1');

Lets say I want to add only the number plate for a car :

- INSERT INTO Cars(NUMBER_PLATE) VALUES('ABC123 GP');

Saving Table changes :

- Saves are not made unless:
 - Database is closed

- Program running is closed or
- COMMIT command is used

Use the commit command as below : - This will permanently save any changes made to any table in the database

```
mysql> COMMIT;  
Query OK, 0 rows affected (0.00 sec)
```

SELECT

- Used to list contents of the table

SYNTAX: SELECT columnlist FROM TABLE_NAME;

- Columnlist represents one or more attributes separated by commas,
 - Use as Asterisk(*) as a wildcard that will list all the attributes

Eg1) to view all the cars :

- SELECT * FROM CARS;

Eg2) to view only the number plates of the cars:

- SELECT NUMBER_PLATE FROM CARS

UPDATE

- Modify data in a table

SYNTAX: UPDATE tablename SET columnname = expression WHERE conditionlist

Eg lets say I want to change the owner of the car that has its registration ABC123 GP from Mikhail to James

- UPDATE Cars SET OWNER='James' WHERE NUMBER_PLATE = 'ABC123 GP';

To do MULTIPLE Attribute updates on a SINGLE row, all that is required is to separate the changes by commas.

- UPDATE tablename SET columnname1 = expression1, columnname2 = expression2 WHERE conditionlist

DELETE

- Deletes a table row

SYNTAX: DELETE FROM tablename WHERE conditionlist;

- Note the Where is optional, However, if it is not included then all rows will be deleted.

Eg. DELETE FROM Cars where NUMBER_PLATE='ABC123 GP';

Your tasks:

1. Create a table of Football Teams (name the table FBTeams)
 - a. The attributes of the table are
 - i. Club ID (NUMBERS ONLY)
 - ii. Name
 - iii. StarPlayer
 - iv. Trophies
 - v. Manager

MAKE SURE TO CORRECTLY IDENTIFIES THE CORRECT DATATYPES WHEN INITIALISING THE TABLE

2. Insert the following into the table:

Club ID	Name	StarPlayer	Trophies	Manager
10567	Liverpool	M Salah	12	J Klopp
20597	Manchester City	E Haaland	5	P Guardiola
11136	Inter Miami	L Messi	1	T Martino
12358	Napoli	D Maradona	6	R Sanchez
23658	Real Madrid	J Bellingham	25	C Ancelotti

3. Use select to view:
 - a. All the clubs then;
 - b. Clubs with more than 10 trophies
4. Liverpool just announced that J Klopp will be replaced by X Alonso ,
Update the team correctly ans display the changes
5. Real Madrid have changed their StarPlayer to K Mbappe and their
Manager to J Mourinho. Make these changes and Display the results
6. Lastly Manchester City have been banned , Delete their Club from the
table and Display the results
7. Save all the changes in the table