

Nepal College of Information Technology

Balkumari

Database Management System

Lab 2

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Title: Data Manipulation Language (DML) Commands

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Objective:

To practice and implement simple data manipulation language commands.

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Procedure:

1. DML Command

- Is used to query and manipulate database.
 - Is used to
 - Insert record in a table
 - Retrieve information from table
 - Modify existing record in a table
 - Delete record from a table
 - Commands used are: INSERT, SELECT, UPDATE, DELETE
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SQL Commands:

1. INSERT

- Is used to add one or more rows in a table.
- The values are separated by commas and data types *char* and *date* is enclosed in apostrophes.
- The values must be entered in same order as they are defined.

- Syntax:
 1. INSERT into <table_name> VALUES (value1, value2,.....)
 2. INSERT into <table_name> (column1, column2,.....)
VALUES (value1, value2,.....)
- Example:
 1. INSERT into student VALUES (1,'ram','ktm', 65.2)
 2. INSERT into student (roll, name, address, weight)
VALUES (2,'sita','patan', 55.5)
 3. INSERT into student (name, weight) VALUES ('hari',75)
 4. INSERT into student VALUES(null,'gita','pokhara',null)
 5. INSERT into student
VALUES(5,'rita','dharan',56.5),(6,'hari','patan',59.8)

2. SELECT

- Is used to retrieve information from a table.
- Is referred as querying a table.
- Can display either all columns in a table or only specific columns from a table.
- Syntax:
 - **Retrieve all rows from table**
SELECT * FROM <table_name>
 - **Retrieve specific columns from table**
SELECT column1,column2..... FROM <table_name>
 - **Elimination of duplicates**
SELECT DISTINCT column1,..... FROM <table_name>
 - **Use of where clause**
SELECT * FROM <table_name> WHERE <condition>
- Example:
 - **Retrieve all rows from table**
SELECT * FROM employee
 - **Retrieve specific columns from table**
SELECT e_name,e_address FROM employee
 - **Elimination of duplicates**
SELECT DISTINCT e_address FROM employee
 - **Use of where clause**
SELECT *FROM employee WHERE e_address='kathmandu'

3. UPDATE

- Is used to alter column values in a table.
- Syntax:
UPDATE <table_name> SET <column1=value1>..... WHERE <condition>
- Example:
UPDATE employee SET e_address='pharping' where e_id=1

4. DELETE

- Is used to delete records in a table.
- Syntax:
DELETE FROM <table_name>
DELETE FROM <table_name> WHERE column1=value1
- Example:
DELETE FROM employee
DELETE FROM employee where e_id=1

LAB EXERCISE:

1. Insert a single record in employee table.
 2. Insert more than one record in employee table using a single insert command.
 3. Update the employee table to set salary of all employees to Rs. 25,000 who is working as programmer.
 4. Select all information from employee table.
 5. Select employee name and job from employee table.
 6. Delete those who are working as designer.
 7. Display only those employees who work as analyst.
 8. Display employee job from table avoiding duplicate values.
 9. Display employee name and job from table whose salary is greater than equal to 20,000.
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