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# Database Management System

**Definition:**

   A Database Management System is a software suite that provides an interface for interacting with database , ensuring data integrity, security , and efficient data retrieval.

**Functions:**

- Data Definition Language (DDL)

- Data Manipulation Language (DML)

- Data Query Language (DQL)

# Data Definition Language (DDL)

   The Data Definition Language (DDL) in a Database Management System (DBMS) is responsible for defining and managing the structure of the database. DDL statements allow users or administrators to create, modify, and delete the database objects that constitute the overall database schema. Here are the primary functions of DDL in a DBMS:

➢ Creating Database Objects

➢ Altering Database Objects

➢ Dropping Database Objects

# Primary functions of DDL in a DBMS

➢ **Creating Database Objects:**

CREATE TABLE employees ( emp_id INT PRIMARY KEY, emp_name VAR CHAR(50), emp_salary DECIMAL(10, 2) );

➢ **Altering Database Objects:**

ALTER TABLE employees ADD COLUMN emp_department VARCHAR(30);

➢ **Dropping Database Objects:**

-- Example: Dropping a table

DROP TABLE employees;

# Data Manipulation Language (DML)

Data Manipulation Language (DML) is a subset of SQL (Structured Query Language) used in Database Management Systems (DBMS) to manipulate data stored in databases. DML allows users and applications to query, insert, update, and delete data within the database. Here are the primary functions of DML in a DBMS:

➢ SELECT

➢ Function

➢ INSERT

# Primary functions of DML in a DBMS

➢ SELECT

   SELECT column1, column2, ...;  FROM table_name

   WHERE condition;

➢ INSERT

   INSERT INTO table_name (column1, column2, ...);

   VALUES (value1, value2, ...);

➢ UPDATE

   UPDATE table_name

   SET column1 = value1, column2 = value2, ...

   WHERE condition;

# Data Query Language (DQL)

       Data Query Language (DQL) is a subset of SQL (Structured Query Language) used in Database Management Systems (DBMS) to retrieve information from the database. DQL allows users to formulate queries that fetch specific data based on specified criteria. The primary function of DQL is to facilitate the retrieval of data from one or more tables in a database. The main DQL statement is the SELECT statement.

Here's an overview of the SELECT statement and its functions in DQL:

➢ SELECT:
     SELECT column1, column2, ...
     FROM table_name
     WHERE condition;