SQL | DDL, DML, DCL COMMANDS

Structured Query Language(SQL) is the database language which is used to perform certain operations on the existing database and also this language is used to create a database. SQL uses certain commands like Create, Drop, Insert etc. to carry out the required tasks.

These some SQL commands are categories as discussed below:

DDL(Data Definition Language) : DDL or Data Definition Language actually consists of the SQL commands that can be used to define the database schema. It simply deals with descriptions of the database schema and is used to create and modify the structure of database objects in database.

Examples of DDL commands:

CREATE :– is used to create the database or its objects (like table, index, function, views, store procedure and triggers).
Example:
CREATE TABLE Student(RollNumber varchar(20), StudentName varchar(255), CollegeName varchar(255), Address varchar(255));

DROP :– is used to delete objects from the database.
Example:
DROP TABLE Student;

ALTER :-is used to alter the structure of the database.
Example:

ALTER TABLE Student ADD Email varchar(255);

TRUNCATE :–is used to remove all records from a table, including all spaces allocated for the records are removed.
Example:
TRUNCATE TABLE Student;

COMMENT :–is used to add comments to the data dictionary. Use "–" or this "/* */" symbols for comment.
Example:
–TRUNCATE TABLE Student;
or
/* TRUNCATE TABLE Student; */

RENAME :–is used to rename an object existing in the database.
Example:
ALTER TABLE Student RENAME TO Vidhyarthi;

DML(Data Manipulation Language) : The SQL commands that deals with the manipulation of data present in database belong to DML or Data Manipulation Language and this includes most of the SQL statements.

Examples of DML commands:

SELECT :– is used to retrieve data from the a database.
Example:
SELECT * FROM Student;

INSERT :– is used to insert data into a table.
Example:
INSERT INTO Student(RollNumber, StudentName varchar, CollegeName, Address) VALUES (‘123CS2019’, ‘Jayesh’, ‘ATC’, ‘Indore’);

UPDATE :– is used to update existing data within a table.
Example:
UPDATE Student SET StudentName = ‘Kumar’, City= ‘Burhanpur’
WHERE RollNumber = ‘123CS2019’;

DELETE :– is used to delete records from a database table.
Example:
DELETE FROM Student WHERE RollNumber=’123CS2019′;

DCL(Data Control Language) : DCL includes commands such as GRANT and REVOKE which mainly deals with the rights, permissions and other controls of the database system.

Examples of DCL commands:

GRANT :-gives user’s access privileges to database.
Example:
GRANT SELECT, INSERT ON Student TO ‘Jayesh’;

REVOKE :-withdraw user’s access privileges given by using the GRANT command.
Example:
REVOKE SELECT, INSERT ON Student TO ‘Jayesh’;

More topics from DBMS to read:

EasyExamNotes.com covered following topics in these notes.

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2. Introduction to DBMS
3. Advantages and disadvantages of DBMS
4. DML, DDL and DCL
5. Domains
6. Introduction to data models
7. Entities and Attributes
8. Relationship among entities
9. Tuples
10. Attributes
11. Relation
12. Keys
13. Relational Database
14. Twelve rules of CODD
15. Schemas
16. Integrity Constraints
17. Normalization
18. Functional dependency
19. Transaction processing concepts
20. Schedule
21. Serializability
22. OODBMS vs RDBMS
23. RDBMS
24. SQL join

25. SQL functions: SUM(), AVG(), MAX(), MIN(), COUNT().
26. Block, Extent, Segment
27. Oracle Background processes
28. Trigger
29. Oracle cursor
30. Introduction to Concurrency Control

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References:

1. Korth, Silbertz,Sudarshan, “Fundamental of Database System”, McGraw Hill
2. Atul Kahate , “ Introduction to Database Management System”, Pearson Educations

Related posts:

1. SQL Functions
2. History of DBMS
3. Introduction to DBMS
4. Introduction to Database
5. Advantages and Disadvantages of DBMS
6. SQL | DDL, DML, DCL Commands
7. Domain
8. Entity and Attribute
9. Relationship among entities
10. Attribute

11. Database Relation
12. DBMS Keys
13. Schema
14. Twelve rules of CODD
15. Normalization
16. Functional Dependency
17. Transaction processing concepts
18. Schedules
19. Serializability
20. OODBMS vs RDBMS
21. RDBMS
22. SQL Join
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25. Oracle cursor
26. Introduction to Concurrency control
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30. GATE, AVG function and join DBMS | Prof. Jayesh Umre
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33. Data types
34. Entity
35. Check Constraint
36. Primary and Foreign key
37. SQL join

38. Database applications
39. Disadvantages of file system data management
40. RGPV DBMS Explain the concepts of generalization and aggregation with appropriate examples
41. RGPV solved Database approach vs Traditional file accessing approach
42. Find all employees who live in the city where the company for which they work is located
43. Concept of table spaces, segments, extents and block
44. Triggers: mutating errors, instead of triggers
45. Dedicated Server vs Multi-Threaded Server
46. Distributed database, database links, and snapshot
47. RDBMS Security
48. SQL queries for various join types
49. Cursor management: nested and parameterized cursors
50. Oracle exception handling mechanism
51. Stored Procedures and Parameters