**Day-10**

**21-03-2025**

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**SQL Commands:**

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-> In Oracle, there are multiple database objects are available like:

 tables, views, indexes, sequences, procedures, stored procedures etc.

-> To work with all the objects of database we need to understand the SQL commands.

-> There are 5-different types of SQL commands:

 1) DDL commands

 2) DML commands

 3) DRL commands

 4) TCL commands

 5) DCL commands

1) DDL Commands:

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-> DDL commands ==> Data Definition Language Commands

-> to create the structure of any database object we can use "DDL commands".

-> DDL commands are:

 1) create

 2) alter

 3) drop

 4) truncate

 5) rename

 6) flashback

 7) purge

i) create command:

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-> when we need to create any database object like table, we can use "create" command.

Syntax:

 create <database-object-name> <identifier/name to identify the database obejct>(

 data..

);

Scenario: Suppose I want to create a table

Here, table -> combination of rows and columns

 row -> record or tuple

 column -> value

we need to follow the below syntax:

Syntax:

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 create table <table-name>(

 <column-name> datatype,

 <column-name> datatype,

 ......,

 ......

 );

Identifier:

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-> identifier is a name

which we can use to name any entity of database objects (eg. table) while creating.

-> Identifiers must be follow with some rules:

 1) identifiers must be define with these allowed characters only:

 i) Alphabets

 ii) numerals (0 to 9)

 iii) \_ (underscore sign)

 2) The identifier never start with digit/numeral

 3) we cannot use any keyword as an identifier.

 4) No special characters allowed to define the identifiers.

-> command for creation of the table:

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create table employeeList(

employeeId number,

employeeName varchar2(50),

department varchar(30),

salary number(8,2),

createdDate date

);

**Q: How we can confirm that the table or any object was created or not?**

-> for this we can follow the below procedure:

 i) way-1:

 describe <table-name>;

Ex: describe employeeList;

 ii) way-2:

 desc <table-name>;

Ex: desc employeeList;

ii) alter command:

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-> alter command can be used to change the name of the table.

Syntax:

 alter table <table-name> rename to <new-name>;

Ex:

alter table employeeList rename to employeeListTable;

desc employeeList;

desc employeeListTable;

-> we can also use the alter command to rename the columns.

Syntax:

 alter table <table-name> rename column <column-name> to <new-name>;

Ex:

alter table employeeListTable rename column employeeId to empid;

desc employeeListTable;

alter table employeeListTable rename column employeeName to empname;

desc employeeListTable;

-> alter command can also use to add new columns into the table.

Syntax:

 alter table <table-name> add <new-column> <datatype>;

Ex:

alter table TableOfEmployee add dateOfSalary date;

desc TableOfEmployee;

drop command Vs Truncate Command:

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Note:

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to perform the truncate and drop operations, the table must be inserted with data.

truncate:

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-> truncate can delete all the records (rows) of the table can be delete by maintaining the structure,

Syntax:

 truncate table <table-name>;

drop:

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-> the drop can delete the data of the table permanently even it cannot maintain the structure also.

Syntax:

 drop table <table-name>;

truncate table TableOfEmployee;

desc TableOfEmployee;

drop table TableOfEmployee;

desc TableOfEmployee;