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Testing

## **PL/SQL**

### **WHAT IS PLSQL?**

PL/SQL stands for procedural language extension to the structured query language.

PL/SQL includes procedural language elements like conditions and loops. It allows declaration of constants and variables, procedures and functions, types and variable of those types and triggers.

PLSQL can execute number of queries in one block using single command

### **DML STATEMENTS:**

Data Manipulation Language statements are used to manipulate the data in a database. There are four types of DML statements: INSERT, UPDATE, DELETE, and MERGE.

#### **Insert statement:**

It is used to enter the data in the row newly.

Syntax:

Insert into table (column 1,column 2) values(value1,value 2..);

Insert into table values (value 1, value2...);

#### **Update :**

The update statement is used to modify existing data in the data field.

Syntax:

Update table set column1=value 1, column 2= value2 where condition;

#### **Delete:**

Delete statement is used to delete the rows from the table.

Syntax:

Delete from table where condition;

## **DDL COMMANDS:**

DDL stands for data definition language.

It simply deals with descriptions of the database schema and is used to create and modify the structure of database objects in the database.

List of DDL commands:

### **1.create:**

The create statement is used to create the database , table ,functions,views,procedure, triggers)

Syntax:

->Create table table name (column 1 datatype1 ,column 2 datatype 2. .);

->Create database database name;

### **2.Drop:**

The drop statement is used to drop the schema or database, table .

Syntax:

Drop database;

Drop table name;

### **3.Alter:**

The alter will change the structure of the table:

Syntax:

**ALTER** TABLE table name ADD COLUMN column name datatype;

### **4.Truncate:**

The truncate will remove all the data's in the table, including all spaces allocated for the records are removed.

SYNTAX:

**TRUNCATE** TABLE table name;

## **5.Comment:**

The comment is used as a dictionary for the code written.

Syntax:

Comment 'comment text; on TABLE table name;

## **6.Rename:**

The rename is used to rename the object existing in the database

Syntax:

**RENAME** TABLE old\_table\_name TO new\_table\_name;

## **Keys:**

### **Primary key**

Primary key is used to unique value in the table and it is not null.

A table can have only one primary key with single or multiple columns.

```
CREATE TABLE supplier
( supplier_id numeric(10) not null,
  supplier_name varchar2(50) not null,
  contact_name varchar2(50),
  CONSTRAINT supplier_pk PRIMARY KEY (supplier_id)
);
```

### **Foreign key:**

The FOREIGN KEY constraint is used to prevent actions that would destroy links between tables.

The table with the foreign key is called the child table, and the table with the primary key is called the referenced or parent table.

```
CREATE TABLE supplier
( supplier_id numeric(10) not null,
  supplier_name varchar2(50) not null,
  contact_name varchar2(50),
  CONSTRAINT supplier_pk PRIMARY KEY (supplier_id)
```

);

```
CREATE TABLE products
( product_id numeric(10) not null,
  supplier_id numeric(10) not null,
  CONSTRAINT fk_supplier
    FOREIGN KEY (supplier_id)
    REFERENCES supplier(supplier_id)
);
```

### **Not null:**

The not null is a keyword which is used to the data cannot be empty or null value.

Syntax:

Create table table\_name (column 1 datatype not null, column2 datatype...);

### **Unique:**

The unique keyword is used to avoid the repeated same values.

Syntax:

Create table employee (roll no int unique);

Example Program:

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

employee

Tables

Views

Stored Procedures

Functions

sys

world

Query 1 new\_table - Table

Limit to 1000 rows

```
1 create database employee;
2 create table empdetails(roll_no int primary key unique not null,full_name varchar(15),salary int,DoB date,
3 insert into empdetails values(567,"Dean ambrose",40000,"2005-07-25","London",67897634,"Male","y");
4 select * from empdetails;
5 alter table empdetails add phone int after place;
```

Result Grid

roll_no	full_name	salary	DoB	Place	phone	Gender	accomodation
123	vignesh kumar	100000	2002-06-26	Salem	999483239	Male	y
243	john cena	40000	2000-05-28	usa	88446324	Male	n
345	undertaker	50000	2000-05-25	newzealand	88556324	Male	y
456	Triple h	70000	2001-10-15	uk	78556324	Male	y
567	Roman reigns	100000	2002-10-26	new york	98765433	Male	y
789	brock lesnar	78900	2001-08-25	Nowhere	98765432	Male	y
* NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

empdetails 6 x

Apply Revert Context Help Snippets

Information

Schema: employee

Object Info Session

Action Output

#	Time	Action	Message	Duration / Fetch
14	17:31:07	insert into empdetails values(243,"john cena",40000,"2000-05-28","usa",88446324,"...	1 row(s) affected	0.016 sec
15	17:31:21	select * from empdetails LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec
16	17:33:45	insert into empdetails values(345,"undertaker",50000,"2000-05-25","newzealand",88...	1 row(s) affected	0.016 sec
17	17:34:34	insert into empdetails values(456,"Triple h",70000,"2001-10-15","uk",78556324,"Mal...	1 row(s) affected	0.016 sec
18	17:35:37	insert into empdetails values(567,"Roman reigns",100000,"2002-10-26","new york",9...	1 row(s) affected	0.032 sec
19	17:35:40	select * from empdetails LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

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