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Assignment 07

Title:

Create Triggers using PL/SQL

Aim:

Write PL/SQL triggers for the creation of insert, delete trigger and update trigger on the given problem statements.

Objective :

To study and use Triggers using MySQL PL/SQL block

Theory :

Triggers

A statement that is executed automatically by the system as a side effect of a modification to the database i.e. when change is made to the table.

- To monitor a database and take a corrective action when a condition occurs.

Advantages:

- Data integrity
- Automation
- Logging and Auditing

Types of Triggers:

BEFORE INSERT - activated before data is inserted into the table.

AFTER INSERT - activated after data is inserted into the table.

BEFORE UPDATE - activated before data in the table is updated.

AFTER UPDATE - activated after data in the table is updated.

BEFORE DELETE - activated before data is removed from the table.

AFTER DELETE - activated after data is removed from the table.

NEW and OLD clause / Trigger variables

'OLD' : Used to represent old values of the rows affected by the triggering event in an 'AFTER' trigger. It allows you to access the values of the rows before they were changed.

'NEW' - Represents the new values of the rows affected by the triggering event.

In MySQL you can drop the triggers using the 'DROP Trigger' statement

Input: Trigger for the given problem statement

Output: Data as per request

Conclusion: Thus, we learned creating and using triggers in SQL

FAQs

1. Enlist Advantages of Triggers!

Ans. Transaction management:

- Logging and auditing
- Error handling
- Maintainability

2. Enlist Disadvantages of Triggers!

- Can slow down the performance of the database system, especially when dealing with large volume of data.
- Increases complexity
- Unexpected side effects
- Maintenance challenges

3. Applications of Triggers

- Enforcing Referential Integrity
- Synchronization of data
- Data validation and cleaning