**Cursor :**

A cursor in SQL is a database object that allows you to retrieve and manipulate data row by row, rather than fetching the entire result set at once. Cursors are typically used within stored procedures or scripts to process individual rows of data sequentially. They provide a mechanism for traversing through the result set and performing operations on each row, such as updating values, performing calculations, or applying business logic. Cursors offer finer control over data manipulation, especially in scenarios where you need to process rows individually or perform complex row-level operations.  
  
**Triggers vs Cursor :**

In SQL, triggers and stored procedures are both database objects used to execute a sequence of SQL statements. However, they serve different purposes and have distinct characteristics:

1. **\*Purpose\*:**

- **\*Stored Procedure\***: A stored procedure is a named set of SQL statements that can be invoked multiple times. It is primarily used for encapsulating business logic or complex operations that need to be executed repeatedly.

- **\*Trigger\***: A trigger is a special type of stored procedure that automatically executes in response to certain events, such as INSERT, UPDATE, or DELETE operations on a table. Triggers are often used for enforcing data integrity rules, auditing changes, or implementing business logic that should be triggered by specific database actions.

2**. \*Execution\*:**

- **\*Stored Procedure\*:** Stored procedures are explicitly called by users or applications when needed.

- **\*Trigger\***: Triggers are automatically invoked by the database engine when the associated event occurs on the table.

3. **\*Timing\*:**

- \***Stored Procedure**\*: Stored procedures are executed explicitly at the time of invocation.

- \***Trigger**\*: Triggers are executed implicitly in response to predefined events, such as data modification operations on the table.

4. \***Scope\***:

- \***Stored Procedure**\*: Stored procedures can perform a wide range of operations on one or more tables and can include conditional logic, loops, and error handling.

- \***Trigger**\*: Triggers are associated with specific tables and events, and their scope is limited to the context of the triggering event and the affected row(s) in the table.

5**. \*Transaction Control\***:

- **\*Stored Procedure\*:** Stored procedures can include transaction control statements (e.g., BEGIN TRANSACTION, COMMIT, ROLLBACK) to manage transactions within the procedure.

- **\*Trigger\*:** Triggers are implicitly part of the transaction that caused them to fire and cannot control the transaction explicitly.

In summary, stored procedures are reusable units of SQL logic primarily used for encapsulating business logic, while triggers are special stored procedures that automatically execute in response to predefined database events to enforce data integrity rules or implement specific behaviour.