DAY-22

STORED PROCEDURES

IN

SQL

SHVETA MAINI

1

What is Stored Procedure?

- A stored procedure in SQL is a group of SQL queries that can be saved and reused multiple times and is stored in a database.

- It is very useful as it reduces the need for rewriting SQL queries.

- It’s particularly useful for performing repetitive tasks, enforcing business rules, and optimizing query execution.

2

SYNTAX TO CREATE STORED PROCEDURE:-

```
CREATE PROCEDURE procedure_name
(parameter1 data_type, parameter2 data_type, ...)
AS
BEGIN
   — SQL statements to be executed
END
```

3

EXPLANATION OF SYNTAX:-

- **CREATE PROCEDURE procedure_name:-** **This starts the creation of a new stored procedure named procedure_name.**

- **(parameter1 data_type, parameter2 data_type,...):-** **This is where you define any input (IN), output (OUT), or input-output (INOUT) parameters for the procedure.**

4

EXPLANATION OF SYNTAX:-

- **BEGIN ... END:-** **This block contains the SQL statements that make up the body of the stored procedure.**

5

SYNTAX TO EXECUTE STORED PROCEDURE:-

WITHOUT PARAMETERS:-

```
EXEC procedure_name;
```

WITH PARAMETERS:-

```
EXEC procedure_name(parameter1, parameter2, ...);
```

6

WHEN TO USE STORED PROCEDURES:-

1.) **Performance:-** Stored procedures are already compiled when they're created, so they run faster than regular SQL queries that need to be processed each time they're run.

- Once a stored procedure is created, the database optimizes it, making it quicker to execute in future runs.

WHEN TO USE STORED PROCEDURES:-

2.) **Security:-** Stored procedures add a layer of security because users can be granted permission to execute the procedure without needing direct access to the underlying tables.

WHEN TO USE STORED PROCEDURES:-

3.) **Maintenance:-** Any updates to the SQL logic in the procedure only need to be made once, in the stored procedure itself, instead of in multiple places across applications.

WHEN TO USE STORED PROCEDURES:-

4.) **Complex Calculations:-** For scenarios requiring complex business logic or calculations that are difficult to perform in a single query.

5.) **Data Validation:-** Use stored procedures to enforce rules or validate data before performing operations like INSERT or UPDATE.

WHEN TO USE STORED PROCEDURES:-

6.) **Reusability & Efficiency:-** If you have an SQL query that you write over and over again, save it as a stored procedure, and then just call it to execute it. This enhances efficiency and reusability.

WHEN TO USE STORED PROCEDURES:-

7.) **Report Generation:-** You can create stored procedures to automate report generation by retrieving and formatting data as needed.

I HOPE YOU FIND THIS POST HELPFUL !

DO HIT THE LIKE BUTTON AND SHARE IT

THANK YOU !!

SHVETA MAINI