What is a Stored Procedure?
A stored procedure is a prepared SQL code that you can save, so the code can be reused over and over again.

So 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.

You can also pass parameters to a stored procedure, so that the stored procedure can act based on the parameter value(s) that is passed.

Anthor defination
The stored procedure is SQL statements wrapped within the CREATE PROCEDURE statement. The stored procedure may contain a conditional statement like IF or CASE or the Loops. The stored procedure can also execute another stored procedure or a function that modularizes the code.

MySQL Stored Procedure
A procedure (often called a stored procedure) is a collection of pre-compiled SQL statements stored inside the database. It is a subroutine or a subprogram in the regular computing language. A procedure always contains a name, parameter lists, and SQL statements.
We can invoke the procedures by using triggers, other procedures and applications such as Java, Python, PHP, etc. It was first introduced in MySQL version 5. Presently, it can be supported by almost all relational database systems.

If we consider the enterprise application, we always need to perform specific tasks such as database cleanup, processing payroll, and many more on the database regularly. Such tasks involve multiple SQL statements for executing each task.
This process might easy if we group these tasks into a single task.
We can fulfill this requirement in MySQL by creating a stored procedure in our database.

A procedure is called a recursive stored procedure when it calls itself. Most database systems support recursive stored procedures. But, it is not supported well in MySQL.

Stored Procedure Features
Stored Procedure increases the performance of the applications. Once stored procedures are created, they are compiled and stored in the database.
Stored procedure reduces the traffic between application and database server. Because the application has to send only the stored procedure's name and parameters instead of sending multiple SQL statements.
Stored procedures are reusable and transparent to any applications.
A procedure is always secure. The database administrator can grant permissions to applications that access stored procedures in the database without giving any permissions on the database tables.