Backend and Database Development

13 classes

Day 8 : May 9 2024

Java Technologies

In Virtual Lab

alter user ‘root’@’localhost’ identified with mysql\_native \_password by ‘Simplilearn’;

flush privileges;

1. Load the Driver
2. Establish the connection
3. Create the Statement or PreparedStatement.

Statement is an interface which provide set of methods which help to do operation on table.

Statement stmt = con.createStatement();

1. A. DML Operation : insert, delete and update

int result = stmt.executeUpdate(“DML Operation”);

return type of executeUpdate method is int. if record inserted or deleted or updated it return > 0. Else it return 0.

B.DQL or DRL : select query

ResultSet rs = stmt.executeQuery(“select clause”);

while(rs.next() ) {

rs.getXXX(columnIndex or columnName)

example rs.getInt(1), rs.getString(2), rs.getFloat(3)

}

executeQuery method return type is ResultSet interface reference.

Statement as well as PreparedStatement

Statement stmt = con.createStatement();

Stmt.executeQuery() or stmt.executeUpdate();

Statement is an interface which help to do CRUD operation and those operation or query are static.

In Statement each time query compile on java side and execute in database again and again.

PreparedStatement pstmt = con.prepareStatement(“query”);

PreparedStatement support parameterized query concept which help to do dynamic query.

In PreparedStatement query compile only once in java side and execute again and again.

Maven : Maven is known as build tools. Build tool is responsible to compile the program, run the program, creating jar or war or ear file, downloading external dependencies in the form of jar file base upon the project, creating documentation for the application etc.

Maven tools provide common project structure between multiple IDE.

In java we can use maven or Gradle etc.

Pom.xml : project object model which contains all configuration details for the maven projects.

Create product management system application with jdbc using maven project.

According to standard

Database table must be map to java bean class.

Product table ----- Product java bean

Pid column pid is variable

Pname column pname is variable

Price is column price is variable.

DAO classes : Data access object : these classes contains more than one method which is responsible to interact with database like insert, delete, update and retrieve.

ProductDao

Service class : this class contains more than one business methods.