7 steps in JDBC connection

1.Import the package—java.sql

2.Load and register the driver--com.mysql.jdbc.Driver

3.Establish the connection

4.Create the statement

* Statement,prepare statement,callable statement(for stored procedures)

5.Execute the query

6.Process result

7.close-Get the object of connection and close it

Load and register:

Class.forName("com.mysql.jdbc.Driver"); forName is a method and class is the class name

Establish connection:

Connection con= where connction is interface

DriverManager.*getConnection*("jdbc:mysql://localhost:3306/student","root","root");

//here sonoo is database name, root is username and password and DriverManager is a class and getconnection is a static method which returns instance of connection

Create the statement:

Statement stmt=con.createStatement(); //statement is a interface

Execute the query

ResultSet rs=stmt.executeQuery("select \* from student.markdetails"); //resultset is

interface

Process result:

rs.next() – will shift the pinter to next row and check whether data is present in next line

rs.getInt(1)-get value from the 1st column

rs.getString(2)—get value of second column strin

Closing the connection:

Stmt.close

con.close();

Example:

**public** **static** **void** main(String args[]) **throws** Exception

{

Class.*forName*("com.mysql.jdbc.Driver");

String URL="jdbc:mysql://localhost:3306/student";

String Uname ="root";

String passwrd="root";

String Query="select name from student.markdetails where rollnumber=255";

Connection con=DriverManager.*getConnection*(URL,Uname,passwrd);

java.sql.Statement stmt=con.createStatement();

ResultSet rs=stmt.executeQuery(Query); //result and table structure is returned

rs.next(); //to move to next element

String name=rs.getString("name");//column name of teh mark details table

System.***out***.println(name);

stmt.close();

con.close();

}

To get the list of students:

**public** **static** **void** main(String args[]) **throws** Exception

{

Class.*forName*("com.mysql.jdbc.Driver");

String URL="jdbc:mysql://localhost:3306/student";

String Uname ="root";

String passwrd="root";

String Query="select \* from student.markdetails";

Connection con=DriverManager.*getConnection*(URL,Uname,passwrd);

java.sql.Statement stmt=con.createStatement();

ResultSet rs=stmt.executeQuery(Query);

**int** user1;

String user2;//result and table structure is returned

**while**(rs.next())

{//to move to next element

user1=rs.getInt(1);

user2=rs.getString(2);

System.***out***.println(user1 +" "+ user2);

}

stmt.close();

con.close();

}

DDL:changing the structure of table

DML:To change the value in table. executeUpdate returns the number of rows affected

DQL-for fetching the data uses executeQuery(Query) which returns resulset

To insert values at runtime:

we use prpeatestatemtn

**public** **static** **void** main(String args[]) **throws** Exception

{

Class.*forName*("com.mysql.jdbc.Driver");

String URL="jdbc:mysql://localhost:3306/student";

String Uname ="root";

String passwrd="root";

// to insert values

**int** rollno=123;

String name="ambi";

**int** sub1=87;

**int** sub2=89;

String Query="INSERT INTO student.markdetails VALUES (?,?,?,?)";

Connection con=DriverManager.*getConnection*(URL,Uname,passwrd);

//to get values at run time

PreparedStatement stmt=con.prepareStatement(Query);

//to set the values

stmt.setInt(1, rollno);

stmt.setString(2, name);

stmt.setInt(3, sub1);

stmt.setInt(4, sub2);

**int** val=stmt.executeUpdate();

System.***out***.println(val);

stmt.close();

con.close();

}

Static and instance block:

**public** **class** class\_forname\_expl {

**public** **static** **void** main(String args[])

{

par a=**new** par();

}

}

**class** par

{

**static**

{

System.***out***.println("in static");

}

//instance block

{

System.***out***.println("in instance");

}

}

* When we create a new object static and instance block is executed
* To load the class Class.forName("par"); will run static block