**JDBC Connection**

A 🡪 Prerequisite ---

1. Java (JDK)
2. Eclipse
3. MYsql JDBC Driver [Download ] > connector/j

{ https://www.mysql.com/downloads/connector/j /}

[JDBC Driver for MySQL (Connector/J)]

1. Go to Build path to add External Jar

B. For Data Insert, Update and Delete [They will just execute commands against the Database – These commands are one directional. Because. It will go create/update/delete the existing the table the data in the table like insert, Update and Delete , so it will return anything ]

1) Create a Connection / Establish the connection [Return – connection class]

2) Create Statement /Query [return statement class]

3) Execute statement /Query

4) Close the connection

C) For Data Select [Select command will get back the data from the Database]

1) Create a Connection / Establish the connection

2) Create Statement /Query

3) Execute statement /Query

4) Store the results in result set

4) Close the connection

Note – when I use select command, it will retrieve from the table . So to store the particular data we need to create the additional object called as ‘Result’.

Notes –

1. .Specific data base need to provide in which data base that you have created in MySQl server
2. If you want to get specific column then specify the specific column—

String s2 = "select employee\_id,first\_name, last\_name from Customer"; // Capturing three different column

So this particular will return the data.

1. For executing the select query, this will give you ‘ResultSet’/ Required set. So to store the data we need to use special class called Result set –

ResultSet resultset =statement.executeQuery("s");// =================1) First Query) resultset.next();

1. This statement will give executeQuery () method intead of execute().

That mean When I will execute Insert, Update and Delete commands, I will execute only execute(). But I will execute select command I will execute the exeuteQuery().

So this is the diff between the Insert, Update and Delete select command at time of execution.

1. String s2 = "select employee\_id,first\_name, last\_name from Customer"; here

We have a three diff coulmns and ‘n’ number of rows. I want to review all the columns and all the rows data and then I want to print them in my console.

For that I have to use loop statement .

If **while**(rs2.next()) is true if rs found some data in the result .Now if this condition is true then internally I will capture – First of all from the ‘rs ‘

It will capture the first record because it has n number of records.

If you find int data then it will take getInt and if it is string you will take getString.

==============================================================

Connection is a predefined class. This class’s connection to t the Driver Manager class comes from the JDBC driver .

1. So to create the connection we need to pass login details .
2. We need to provide the connection details from the MySQL workbench- we need to pass -post number, username and password-
3. So What is the connection string of mysql-

**(“jdbc:mysql://localhost:3306/name of the data”,”root”,”mysql123”);**

My sql is present in my local system, so it will be localhost. If your mysql server installer in remote machine then you have to provide IP/ name of machine.

\*\*Everydata base connection string will be very.

1. By using statement object we can frame our query .So through this statement object we need to execute our query and before that we need to frame our query to create string.
2. I am creating string variable which contains a query .

// Insert Query

String s= "INSERT INTO STUDENT VALUES(103,'RUMA')";

//Update the query

String s= "UPDATE STUDENT SET RUMA= 'AFSHEEN' WHERE SID=102";

//Delete Query

String s= "DELETE FROM STUDENT WHERE SID=102";

**This is how I need to write a JDBC program**

**Note for Exam—**

1. just First we have to establish the connection to the database

Connection connect =DriverManager.*getConnection*("jdbc:mysql://localhost:3306/sys","root","mysql123");

1. create the statement object
2. Frame the statement /query –/ create a query using String variable

String s= "INSERT INTO STUDENT VALUES(103,'RUMA')";

1. and then executed this query by using execute() method. And specify the query which you want to execute.

state.execute(s); and then once it is executes then

1. Close the connection –

connect.close();

1. After completion of this I you want to write a simple confirmation message then write --

System.***out***.println("Query Executed ----");

**So this is my JDBC program.**

===============================================================

**Update the data –**

Example -Let’s see Student ID 103=’Ruma ’. So I want to update this line SID 103 = ‘Afsheen ‘ instead of ID 103=’Ruma.

So mysql is query is --

String s= "UPDATE STUDENT SET RUMA= 'AFSHEEN' WHERE SID=103";

So if it is executed then it will be changes into “Afsheen”

======================================================================

**Delete Query**

//Delete Query

String s= "DELETE FROM STUDENT WHERE SID=102";

============================================================

\*\*\* Internally this JDBC will use the Driver. If you see the ref library’s Mysql connector is there.