**JDBC – Java Database Connectivity**

JDBC stands for Java Database Connectivity

It is standard API provided by oracle.

It is used in Java applications to interact with different set of databases.

JDBC

Database

Java Application

API here means there are some already written classes and interfaces that we will simply use to get things done for us.

**Why learn JDBC**

Help in making data persistent (stored for long use).

Allow us to perform CRUD operation on database.

Diagram

Description automatically generated

We need to keep driver of the database in classpath.

Table

Description automatically generated

**Steps to connect with database**

**Load the driver:**

Class.forName(“com.mysql.jdbc.driver”);

// This will load the specified driver in the memory and all the static content there in the driver will get executed. We need to put this inside try catch block because there is possibility of error.

OR

DriverManager.registerDriver(new com.mysql.jdbc.driver());

**Create Connection**

Connection con = DriverManager.getConnection(“url”, “username”, “password”);

In our case

url: “jdbc:mysql://localhost:3306/db\_name”

username: “root”

password: “userpass”

**Create Query**

Statement, PreparedStatement, CallableStatement

Example: -

String queryString = “Select \* from database.table\_name”;

Statement statement = con.createStatement();

ResultSet set = statement.executeQuery(queryString); // for Retrieval

OR

Statement.executeUpdate (queryString); // for Create, update and delete

**Process the data :**

While(set.next()) {

Int id = set.getInt(“StudentId”);

String studentName = set.getString(“StudentName”);

System.out.println(id);

System.out.println(studentName);

}

**Close Connection** :

Con.close();