Demonstrate with a java console application that connect with MySQL database and perform database operations

AIM:

To develop a Java console application that demonstrates the connection with MySQL database and perform various operations on it.

ALGORITHM:

Step 1: create employee database by using create database employee;  and use employee; commands.

Step 2: create a table in the mysql database by create table emp(eno **int**(10),name varchar(40),age **int**(3));

Step 3: **Register the JDBC driver:**  to initialize a driver so that open a communication channel with the database.

Step 4: **Open a connection:**  use the getConnection() method to create a Connection object, which represents a physical connection with the database.

Step 5: **Execute a query:** requires to use an object of type Statement for building and submitting an SQL statement to the database.

Step 6: **Extract data from the result set:** use the appropriate getXXX() method to retrieve the data from the result set.

Step 7: **Clean up the environment:** to explicitly close all database resources versus relying on the JVM’s garbage collection.

PROGRAM:

**import** java.sql.\*;

**import** java.io.\*;

**public** **class** Temp {

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

// **TODO** Auto-generated method stub

**try**{

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

Connection con=DriverManager.*getConnection*("jdbc:mysql://localhost:3306/employee?characterEncoding=latin1","root","root");

Statement stmt=con.createStatement();

**int** ans=1;

**do** {

System.***out***.println("1. Insert a record ");

System.***out***.println("2. Delete a record ");

System.***out***.println("3. Modify/Edit a record ");

System.***out***.println("4. Display list of records ");

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println("Enter your choice:");

**int** ch = sc.nextInt();

String ename;

**int** eno,age;

String query="";

**switch**(ch) {

**case** 1:

System.***out***.println("Enter employee number:");

eno = sc.nextInt();

System.***out***.println("Enter employee name:");

ename = sc.next();

System.***out***.println("Enter employee age:");

age = sc.nextInt();

query = "INSERT INTO emp " + "VALUES (" + eno+ ",'" + ename+"',"+ age+")";

stmt.executeUpdate(query);

**break**;

**case** 2:

System.***out***.println("Enter employee number:");

eno = sc.nextInt();

query = "delete from emp where eno='"+eno+"'";

stmt.executeUpdate(query);

System.***out***.println("Record is deleted from the table successfully..................");

**break**;

**case** 3:

PreparedStatement ps = **null**;

query = "update emp set name=? where eno=? ";

ps = con.prepareStatement(query);

System.***out***.println("Enter employee number:");

eno = sc.nextInt();

System.***out***.println("Enter employee name:");

ename = sc.next();

ps.setString(1, ename);

ps.setInt(2, eno);

ps.executeUpdate();

System.***out***.println("Record is updated successfully......");

**break**;

**case** 4:

ResultSet rs=stmt.executeQuery("select \* from emp");

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

System.***out***.println(rs.getInt(1)+" "+rs.getString(2)+" "+rs.getInt(3));

}

System.***out***.println("Enter another(1/0)");

ans = sc.nextInt();

}**while**(ans==1);

con.close();

}**catch**(Exception e){ System.***out***.println(e);}

}

}

RESULT:

Thus the Java console application that demonstrated the connection with MySQL database and perform various operations on it.