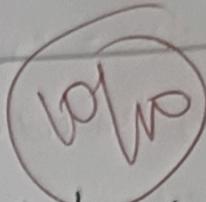


03/09/2024

Assign

## Java.



Java Program creates a simple student database using MySQL and performs the following operations:

01. connects to a MySQL database named "javadb" on localhost.
02. creates a table named "Student" with two columns, SNO(Integer) and SNAME(VarChar(20)), if the table doesn't already exist.
03. Prompts the user to input 5 student records (SNO and SNAME)
04. Insert the user -inputted records into the "Student" table.
05. closes the database connection and resources.

### Code

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        try {
            // step 1: load and register the JDBC driver

```

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## Java Assignment - 04

```
class.forName("com.mysql.cj.jdbc.Driver");
```

// step 2: establish a connection

```
String url = "jdbc:mysql://localhost:3306/javadb";
```

```
String user = "root"; // Default username for XAMPP
```

```
String password = ""; // Default Password is empty
```

```
Connection con = DriverManager.getConnection(url, user, password);
```

// step 3: create a statement

```
Statement stmt = con.createStatement();
```

// step 4: Create the table (If it doesn't already exist)

```
String createTableSql = "CREATE TABLE IF NOT EXISTS student  
CSNO int, SNAME VARCHAR(20));"
```

//stmt.executeUpdate(createTableSql);

// Get 5 inputs from user and insert them into the table

```
for (int i = 0; i < 5; i++) {
```

```
System.out.println("Enter student number:");
```

```
int sno = scanner.nextInt();
```

```
scanner.nextLine(); // consume the newline character
```

```
System.out.println("Enter student name:");
```

```
String name = scanner.nextLine();
```

```
String insertSQL = string.format("INSERT INTO student(CSNO, SNAME)
```

```
VALUES (%d, '%s')", sno, name);
```

```
stmt.executeUpdate (insertSQL);
```

25

```
System.out.println ("Records inserted successfully....");
```

11 step 5: close the resources

```
stmt.close();
```

```
con.close();
```

3 catch (ClassNotFoundException/SQLException e) {

```
e.printStackTrace();
```

3 finally {

```
scanner.close();
```

}

3

3

```
import java.sql.Connection;
```

```
import java.sql.DriverManager;
```

```
import java.sql.SQLException;
```

```
import java.sql.Statement;
```

```
import java.sql.*;
```

```
import java.util.Scanner;
```

```
public class main {
```

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

```
Scanner scanner = new Scanner (System.in);
```

try {

11 step 1: Load and register the JDBC driver

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

// Step 2: Establish a connection,

```
String url = "jdbc:mysql://localhost:3306/javadb";
String user = "root"; // Default Username for XAMPP
String password = ""; // Default Password is empty.
```

Connection con = DriverManager.getConnection(url, user, password);

// Step 3: Create a statement.

```
Statement stmt = con.createStatement();
```

// Step 4: Create the table (if it doesn't already exist)

```
String createTableSQL = "CREATE TABLE IF NOT EXISTS student
(SNO INT, SNAME VARCHAR(20));"
```

```
stmt.executeUpdate(createTableSQL);
```

// Step 5: Get 5 inputs from user and insert them into the table

```
for (int i = 0; i < 5; i++) {
    System.out.println("Enter student number:");
    int sno = scanner.nextInt();
    scanner.nextLine(); // To skip the new line character
    System.out.println("Enter student Name:");
    String sname = scanner.nextLine();

    String insertSQL = String.format("INSERT INTO student(SNO,
SNAME) VALUES (%d, '%s')", sno, sname);
    stmt.executeUpdate(insertSQL);
}
```

y

```
System.out.println ("Records inserted successfully...");  
String SQL = "SELECT * FROM student";  
ResultSet rs = null;  
rs = stmt.executeQuery(SQL);
```

```
System.out.println ("Student Details are:");  
while (rs.next()) {
```

```
int sno = rs.getInt ("SNO");
```

```
String sname = rs.getString ("SNAME");
```

```
System.out.println ("SNO: " + sno + " SNAME: " + sname);
```

```
}  
stmt.close();  
con.close();
```

```
} catch (ClassNotFoundException e) {  
e.printStackTrace();
```

```
} finally {
```

```
scanner.close();
```

```
}
```