

## JAVA Database Connectivity (JDBC)

```
import java.sql.Connection;  
import java.sql.DriverManager;  
import java.sql.ScannerResultSet;  
import java.sql.Statement;  
import java.sql.SQLException;
```

```
Public class Main {
```

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

```
        String fileName = "newFile.txt";
```

```
        File file = new File (fileName);
```

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

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

```
String user = "root";
```

```
String Password = " ";
```

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

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

```
String createSQL = "(create Table student (stu_id int,  
name VARCHAR(50), age int,  
major varchar(50))";
```

```
stmt.executeUpdate (createSQL);
```

```
System.out.println ("Table created successfully");
```

// Insert records into the Table

```
String insertSQL = "Insert into Student (Stu_id, name, age, major)  
values (01, 'Alice Brown', 20, 'Computer Science'), (02,  
'Bob Smith', 22, 'Mathematics'), (03, 'Charlie Davis', 21,  
'Physics')";
```

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

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

// Update a Student's record

```
String updateSQL = "Update Student SET age = 23 WHERE  
name = 'Bob Smith'";
```

```
stmt.executeUpdate(updateSQL);
```

```
System.out.println("Record updated successfully");
```

// Delete a Specific Student's record

```
String deleteSQL = "Delete From Student where name = 'Charlie  
Davis'";
```

```
stmt.executeUpdate(deleteSQL);
```

```
System.out.println("Record deleted successfully");
```

// Delete all Student's record

```
String deleteALLSQL = "Delete From Student";
```

```
stmt.executeUpdate(deleteALLSQL);
```

```
System.out.println("All records deleted successfully");
```

// Display the Student records

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

```
String displaySQL = "Select * From Student";
```

```
stmt.executeUpdate(displaySQL);
```



## // Alter the Student Table

```
String alter SQL = "Alter Table Student ADD Column gpa Double";  
stmt.executeUpdate(alter SQL);  
System.out.println("Table altered successfully");
```

## // Modify the Student Table

```
String modify SQL = "Alter Table Student Modify Column gpa  
Decimal (3,2)";  
stmt.executeUpdate(modify SQL);  
System.out.println("Table modified successfully"); }  
stmt.close();  
con.close(); }  
catch (ClassNotFoundException | SQLException e) {  
    e.printStackTrace(); } }
```