

VITAP UNIVERSITY

NAME: B Ranga sai Siddartha

Branch: MTSE

Register no: 20MIS7068

SMARTBRIDGE EXTERNSHIP

Modern Application Development (Java Spring Boot)

ASSIGNMENT – 3

Creating the Database that we need to connect to Java JDBC:

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\bodar> mysql -u root -p
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 16
Server version: 8.0.33 MySQL Community Server - GPL

Copyright (c) 2000, 2023, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| siddudb |
| sys |
+-----+
5 rows in set (0.00 sec)
```

```

Windows PowerShell

mysql> create database DB_20MIS7068
-> ;
Query OK, 1 row affected (0.01 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| db_20mis7068 |
| information_schema |
| mysql |
| performance_schema |
| siddudb |
| sys |
+-----+
6 rows in set (0.00 sec)

mysql> use db_20mis7068
Database changed
mysql> create table EngineeringStudents(
-> student_ID INT NOT NULL,
-> Department VARCHAR(25),
-> First_Name VARCHAR(25),
-> Last_Name VARCHAR(25),
-> PassOutYear INT NOT NULL,
-> University_Rank INT NOT NULL,
-> PRIMARY KEY(student_ID)
-> );
Query OK, 0 rows affected (0.02 sec)

```

Inserting values into the Database db_20mis7068:

```

Windows PowerShell

mysql> INSERT INTO EngineeringStudents VALUES (7068,'MTSE','Rangasai','Siddartha',2025,55);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO EngineeringStudents VALUES (7025,'MTSE','Pokala','Rohit',2025,54);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO EngineeringStudents VALUES (7016,'CSE','Vivek','Vardhan',2025,56);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO EngineeringStudents VALUES (7030,'ECE','Tharun','Goud',2024,44);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO EngineeringStudents VALUES (7040,'ECE','Yogi','Reddy',2024,44);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO EngineeringStudents VALUES (7039,'CSE','Veerndra','bee',2024,45);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO EngineeringStudents VALUES (7005,'MTSE','Bansi','Noel',2025,99);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO EngineeringStudents VALUES (7026,'CSE','Pallavi','Iyer',2025,26);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO EngineeringStudents VALUES (7062,'MTSE','Aparna supriya','Suresh',2025,62);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO EngineeringStudents VALUES (7003,'ECE','Pooja','P',2024,03);
Query OK, 1 row affected (0.03 sec)

```

Visualizing the Database db_20mis7068:

```
Windows PowerShell
mysql> INSERT INTO EngineeringStudents VALUES (7003,'ECE','Pooja','P',2024,03);
Query OK, 1 row affected (0.03 sec)

mysql> select * from EngineeringStudents;
+-----+-----+-----+-----+-----+-----+
| student_ID | Department | First_Name | Last_Name | PassOutYear | University_Rank |
+-----+-----+-----+-----+-----+-----+
| 7003 | ECE | Pooja | P | 2024 | 3 |
| 7005 | MTSE | Bansi | Noel | 2025 | 99 |
| 7016 | CSE | Vivek | Vardhan | 2025 | 56 |
| 7025 | MTSE | Pokala | Rohit | 2025 | 54 |
| 7026 | CSE | Pallavi | Iyer | 2025 | 26 |
| 7030 | ECE | Tharun | Goud | 2024 | 44 |
| 7039 | CSE | Veerndra | bee | 2024 | 45 |
| 7040 | ECE | Yogi | Reddy | 2024 | 44 |
| 7062 | MTSE | Aparna supriya | Suresh | 2025 | 62 |
| 7068 | MTSE | Rangasai | Siddartha | 2025 | 55 |
+-----+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)

mysql> select student_ID,Department,First_Name,Last_Name,PassOutYear from EngineeringStudents where Student_ID = 7068;
+-----+-----+-----+-----+-----+
| student_ID | Department | First_Name | Last_Name | PassOutYear |
+-----+-----+-----+-----+-----+
| 7068 | MTSE | Rangasai | Siddartha | 2025 |
+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql>
```

WorkBench Output:

The screenshot displays the MySQL Workbench interface. At the top, a tab labeled 'engineeringstudents' is active. Below the toolbar, the SQL editor contains the query: `SELECT * FROM db_20mis7068.engineeringstudents;`. The 'Result Grid' tab is selected, showing the query results in a table format. The table has columns: student_ID, Department, First_Name, Last_Name, PassOutYear, and University_Rank. The results list 10 rows of student data. On the right side of the interface, there are buttons for 'Result Grid', 'Form Editor', and 'Field Types'. At the bottom, there are 'Apply' and 'Revert' buttons.

student_ID	Department	First_Name	Last_Name	PassOutYear	University_Rank
7003	ECE	Pooja	P	2024	3
7005	MTSE	Bansi	Noel	2025	99
7016	CSE	Vivek	Vardhan	2025	56
7025	MTSE	Pokala	Rohit	2025	54
7026	CSE	Pallavi	Iyer	2025	26
7030	ECE	Tharun	Goud	2024	44
7039	CSE	Veerndra	bee	2024	45
7040	ECE	Yogi	Reddy	2024	44
7062	MTSE	Aparna supriya	Suresh	2025	62
7068	MTSE	Rangasai	Siddartha	2025	55

Connecting the Database with Java JDBC:

We need to perform try catch method and the modules need to import are:

- Connection
- DriverManager
- ResultSet
- Statement

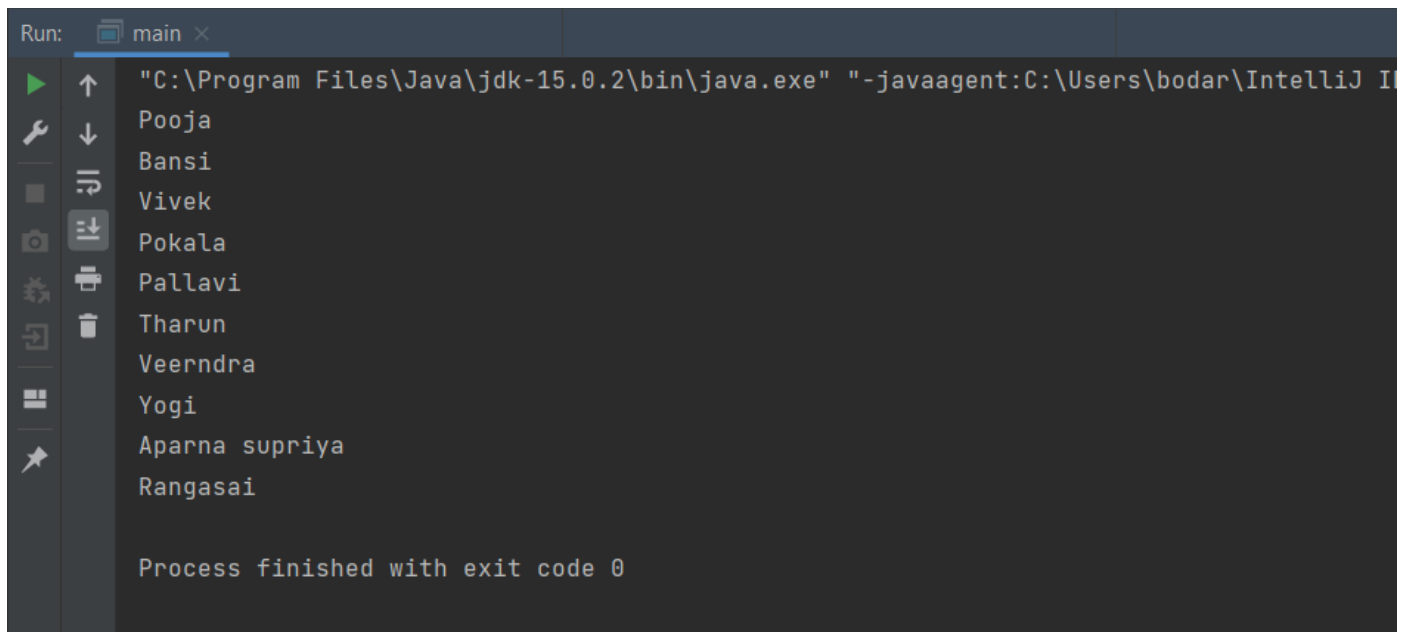
```
package com.Siddartha;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;

public class main {
    public static void main(String[] args) {
        try {
            Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/db_20mis7068","root","Anuprasa
d_19");

            Statement statement = conn.createStatement();
            ResultSet resultSet = statement.executeQuery("select * from
EngineeringStudents");
            while (resultSet.next()) {
                System.out.println(resultSet.getString("First_Name"));
            }
        }
        catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

Output that displays the First_Name column of the Database db_20mis7068:



```
Run: main x
"C:\Program Files\Java\jdk-15.0.2\bin\java.exe" "-javaagent:C:\Users\bodar\IntelliJ I
Pooja
Banshi
Vivek
Pokala
Pallavi
Tharun
Veerndra
Yogi
Aparna supriya
Rangasai

Process finished with exit code 0
```

Java code for more Outputs:

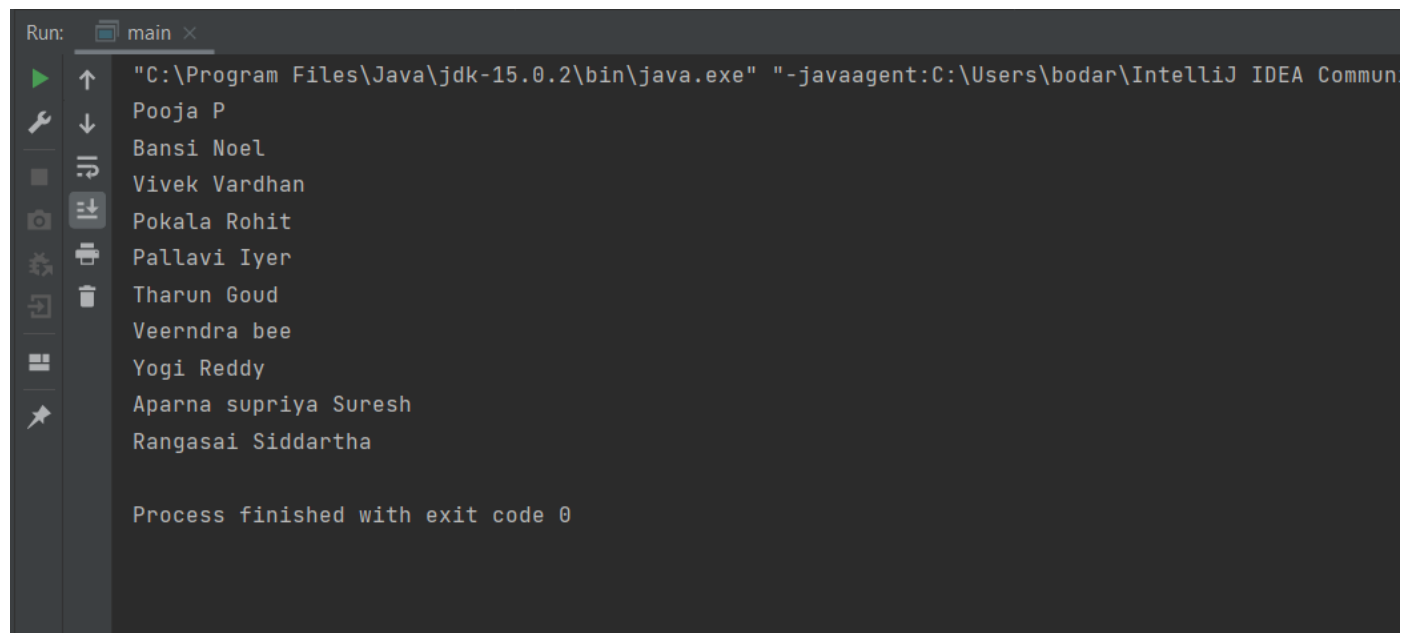
```
package com.Siddartha;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;

public class main {
    public static void main(String[] args) {
        try {
            Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/db_20mis7068","root","Anuprasa
d_19");

            Statement statement = conn.createStatement();
            ResultSet resultSet = statement.executeQuery("select * from
EngineeringStudents");
            while (resultSet.next()) {
                System.out.println(resultSet.getString("First_Name")+ " "
+resultSet.getString("Last_Name"));
            }
        }
        catch (Exception e) {
            e.printStackTrace();
        }
    }
}
```

Output that displays the First_Name + Last_Name columns of the Database db_20mis7068:



```
Run: main x
"C:\Program Files\Java\jdk-15.0.2\bin\java.exe" "-javaagent:C:\Users\bodar\IntelliJ IDEA Commun
Pooja P
Bansi Noel
Vivek Vardhan
Pokala Rohit
Pallavi Iyer
Tharun Goud
Veerndra bee
Yogi Reddy
Aparna supriya Suresh
Rangasai Siddartha

Process finished with exit code 0
```