



# DEVELOPER'S PORTFOLIO


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TASK - 5



## INTRODUCTION TO DEVELOPER'S PORTFOLIO

Developers build portfolio websites as full-stack developer sample projects to showcase their skills and impress clients. As a student or professional learning web development, you must practice making portfolio websites to gain knowledge and experience in efficient front end web development technology.





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# ABOUT TASK 5

## JDBC CONNECTION

- CREATE DATABASE
- CREATE TABLE
- INSERT DATA INTO TABLE
- UPDATE VALUES OF THE TABLE



# JDBC INTRODUCTION

JDBC stands for Java Database Connectivity. It is a Java API that allows Java programs to connect and interact with various databases. With JDBC, Java developers can write database applications that can run on various platforms and interact with different database management systems (DBMS) such as MySQL, Oracle, SQL Server, and many others. The JDBC API provides a set of classes and interfaces that enable Java applications to send SQL statements to a database, execute them, and retrieve the results.



# JDBC CONNECTION CODE

IMPORT STATEMENT

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

```
2 public class createDBandCON{
```

Run | Debug

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

```
4         try{
```

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

```
6             // Creating a Connection
```

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

```
8             String username="root";
```

```
9             String password="dev@singh7465";
```

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

```
11            if(con.isClosed()){
```

```
12                System.out.println(x:"Connection failed !");
```

```
13            }
```

```
14            else{
```

```
15                System.out.println(x:"Connection Created successfully.");
```

```
16            }
```

```
17            // SQL COMMANDS...
```

```
18        }
```

```
19        catch(Exception e){
```

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

```
21        }
```

```
22    }
```

```
23 }
```

TRY AND CATCH

SQL USERNAME

SQL PASSWORD

CONNECTION STATEMENT

# OUTPUT FOR JDBC CONNECTION CODE



The screenshot shows the Visual Studio Code interface with the 'TERMINAL' tab selected. The terminal output is as follows:

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

PS E:\JAVA Codes (in VS)> & 'C:\Program Files\Java\jdk-19\bin\java.exe' '@C:\Users\dev
n\AppData\Local\Temp\cp_b66sh6ook1t9a9ymadrbt1o6r.argfile' 'createDBandCON'
Loading class `com.mysql.jdbc.Driver'. This is deprecated. The new driver class is `com.
mysql.cj.jdbc.Driver'. The driver is automatically registered via the SPI and manual loa
ding of the driver class is generally unnecessary.
Connection Created successfully.
PS E:\JAVA Codes (in VS)>
```

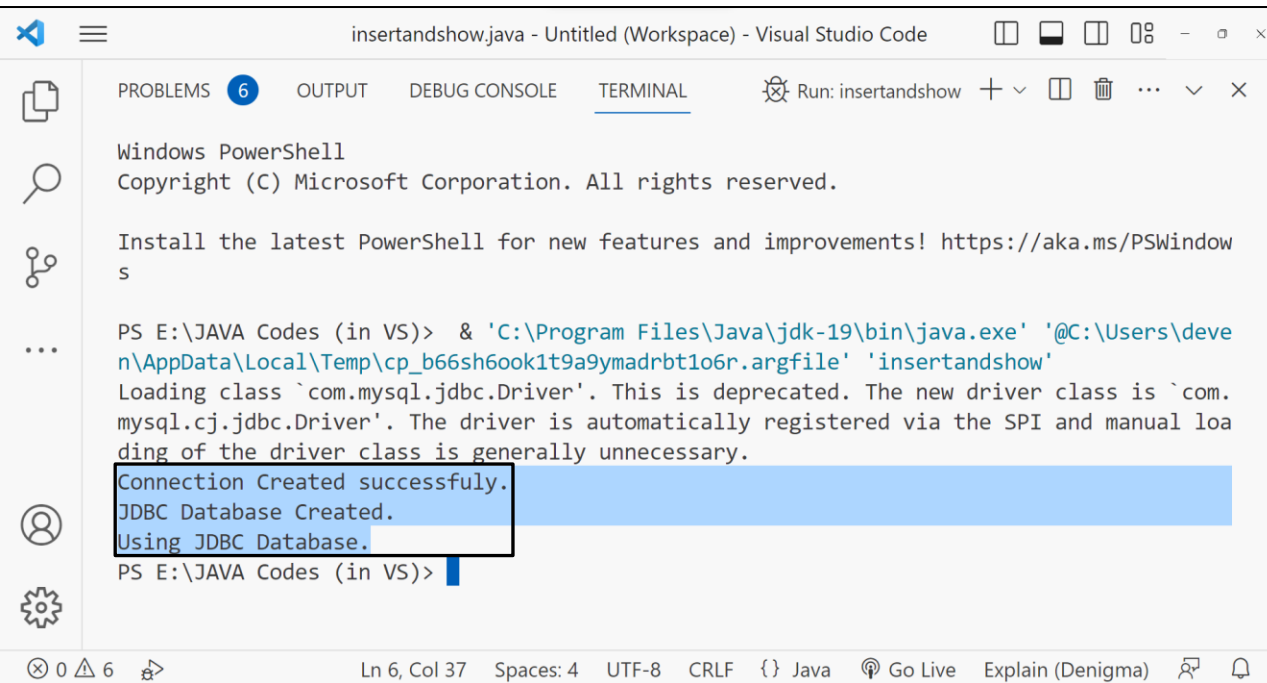
A black arrow points from the left side of the image to the text 'Connection Created successfully.', which is highlighted with a blue selection box. The status bar at the bottom indicates 'Ln 17, Col 31'.

# CREATE DATABASE USING JDBC

	<pre>//Creating Database</pre>
CREATE DATABASE QUERY	<pre>String createdb = "CREATE DATABASE JDBC"; Statement stmt=con.createStatement();</pre>
UPDATE STATEMENT	<pre>stmt.executeUpdate(createdb);</pre>
OUTPUT STATEMENT	<pre>System.out.println(x:"JDBC Database Created.");</pre>
	<pre>// USE Database</pre>
USE DATABASE QUERY	<pre>String usedbquery = "USE JDBC"; Statement stmt1=con.createStatement();</pre>
UPDATE STATEMENT	<pre>stmt1.executeUpdate(usedbquery);</pre>
OUTPUT STATEMENT	<pre>System.out.println(x:"Using JDBC Database.");</pre>



# OUTPUT FOR CREATE DATABASE CODE

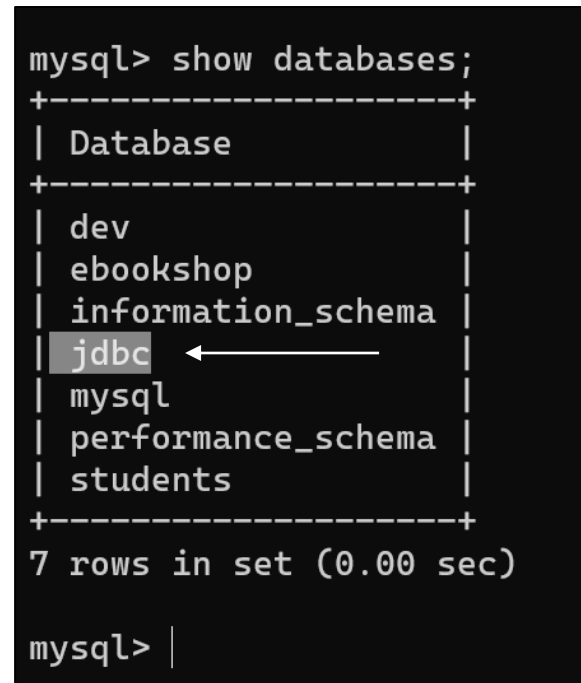


The screenshot shows the Visual Studio Code interface with a terminal window open. The terminal output indicates that the Java program successfully created a MySQL database and is using the JDBC driver. The output is as follows:

```
Windows PowerShell
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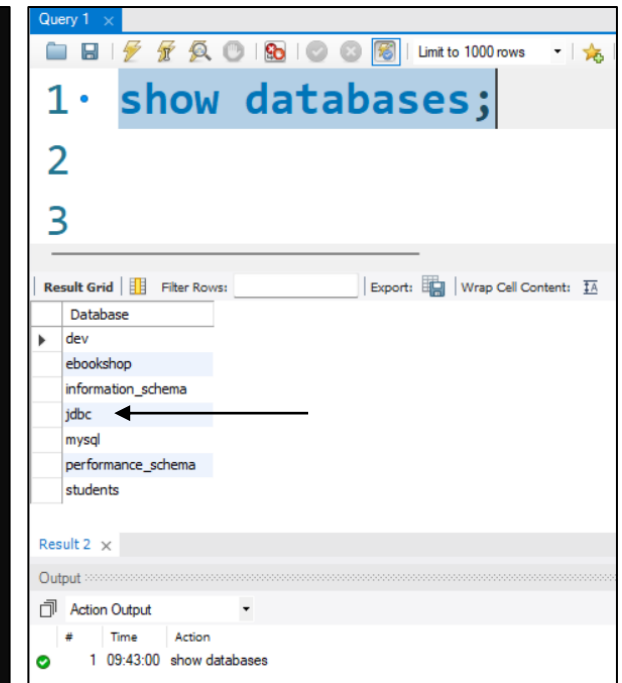
PS E:\JAVA Codes (in VS)> & 'C:\Program Files\Java\jdk-19\bin\java.exe' '@C:\Users\devn\AppData\Local\Temp\cp_b66sh6ook1t9a9ymadrbt1o6r.argfile' 'insertandshow'
Loading class `com.mysql.jdbc.Driver'. This is deprecated. The new driver class is `com.mysql.cj.jdbc.Driver'. The driver is automatically registered via the SPI and manual loading of the driver class is generally unnecessary.
Connection Created successfully.
JDBC Database Created.
Using JDBC Database.
PS E:\JAVA Codes (in VS)>
```



The screenshot shows a MySQL command prompt where the command 'show databases;' has been executed. The output lists seven databases: dev, ebookshop, information\_schema, jdbc, mysql, performance\_schema, and students. The 'jdbc' database is highlighted with a grey background and an arrow pointing to it. The output is as follows:

```
mysql> show databases;
+-----+
| Database |
+-----+
| dev      |
| ebookshop |
| information_schema |
| jdbc     |
| mysql    |
| performance_schema |
| students |
+-----+
7 rows in set (0.00 sec)

mysql>
```



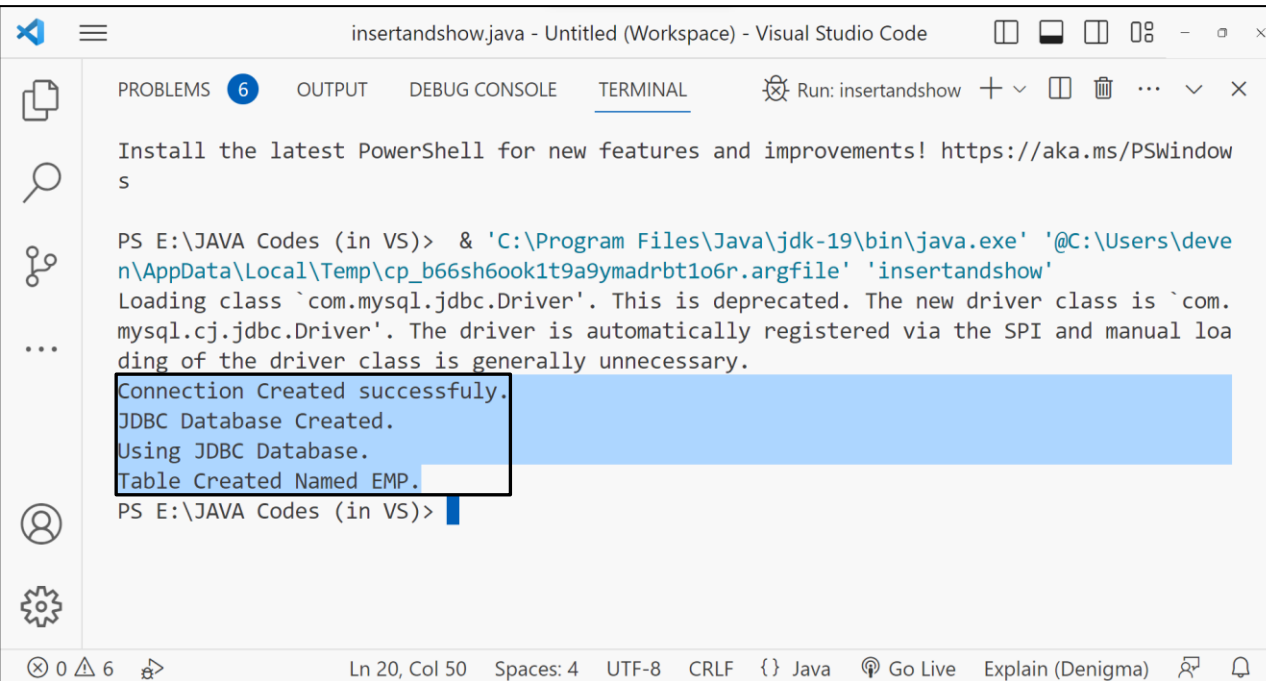
The screenshot shows a MySQL query editor with the command 'show databases;' entered in the query field. The output is displayed in a table with the following columns: Database. The output is as follows:

Database
dev
ebookshop
information_schema
jdbc
mysql
performance_schema
students

# CREATE TABLE USING JDBC

```
// Creating Table EMP
CREATE TABLE QUERY → String createtable = "CREATE TABLE EMP(EMP_ID int(4) ,
EMP_NAME varchar(10))";
Statement stmt2=con.createStatement();
UPDATE STATEMENT → stmt2.executeUpdate(createtable);
OUTPUT STATEMENT → System.out.println(x:"Table Created Named EMP.");
```

# OUTPUT FOR TABLE CREATION CODE



insertandshow.java - Untitled (Workspace) - Visual Studio Code

PROBLEMS 6 OUTPUT DEBUG CONSOLE TERMINAL Run: insertandshow

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```
PS E:\JAVA Codes (in VS)> & 'C:\Program Files\Java\jdk-19\bin\java.exe' '@C:\Users\devn\AppData\Local\Temp\cp_b66sh6ook1t9a9ymadrbt1o6r.argfile' 'insertandshow'
```

Loading class `com.mysql.jdbc.Driver'. This is deprecated. The new driver class is `com.mysql.cj.jdbc.Driver'. The driver is automatically registered via the SPI and manual loading of the driver class is generally unnecessary.

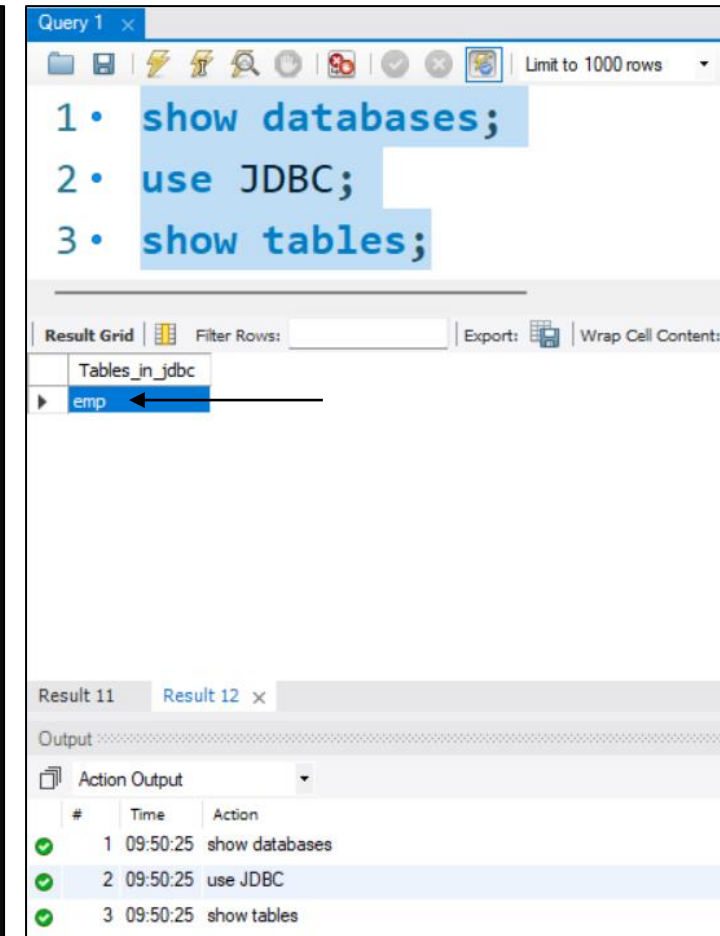
Connection Created successfully.  
JDBC Database Created.  
Using JDBC Database.  
Table Created Named EMP.

```
PS E:\JAVA Codes (in VS)>
```

Ln 20, Col 50 Spaces: 4 UTF-8 CRLF {} Java Go Live Explain (Denigma)

```
mysql> show databases;
+-----+
| Database |
+-----+
| dev      |
| ebookshop |
| information_schema |
| jdbc     |
| mysql    |
| performance_schema |
| students |
+-----+
7 rows in set (0.00 sec)

mysql> use jdbc;
Database changed
mysql> show tables;
+-----+
| Tables_in_jdbc |
+-----+
| emp             |
+-----+
1 row in set (0.00 sec)
```



Query 1 x

1 • show databases;  
2 • use JDBC;  
3 • show tables;

Result Grid Filter Rows: Export: Wrap Cell Content:

Tables_in_jdbc
emp

Result 11 Result 12 x

Output

Action Output

#	Time	Action
✓ 1	09:50:25	show databases
✓ 2	09:50:25	use JDBC
✓ 3	09:50:25	show tables

# INSERT VALUES USING JDBC

INSERT QUERY	→	<pre>//Insert Command String insert = "insert into emp(EMP_ID,EMP_NAME) values(?,?)"; PreparedStatement pstmt = con.prepareStatement(insert);</pre>
RECORD 1	→	<pre>pstmt.setInt(parameterIndex:1,x:101); pstmt.setString(parameterIndex:2,x:"Devendra"); pstmt.executeUpdate();</pre>
RECORD 2	→	<pre>pstmt.setInt(parameterIndex:1,x:102); pstmt.setString(parameterIndex:2,x:"Rohan"); pstmt.executeUpdate();</pre>
RECORD 3	→	<pre>pstmt.setInt(parameterIndex:1,x:103); pstmt.setString(parameterIndex:2,x:"Ashok"); pstmt.executeUpdate();</pre>
RECORD 4	→	<pre>pstmt.setInt(parameterIndex:1,x:104); pstmt.setString(parameterIndex:2,x:"Parth"); pstmt.executeUpdate();</pre>
RECORD 5	→	<pre>pstmt.setInt(parameterIndex:1,x:105); pstmt.setString(parameterIndex:2,x:"Arjun"); pstmt.executeUpdate();</pre>
OUTPUT STATEMENT	→	<pre>System.out.println(x:"Data Inserted in Table EMP.");</pre>

# OUTPUT AFTER INSETING VALUES IN TABLE

```
insertandshow.java - Untitled (Workspace) - Visual Studio Code
PROBLEMS 6 OUTPUT DEBUG CONSOLE TERMINAL Run: insertandshow
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s
PS E:\JAVA Codes (in VS)> & 'C:\Program Files\Java\jdk-19\bin\java.exe' '@C:\Users\devn\AppData\Local\Temp\cp_b66sh6ook1t9a9ymadrbt1o6r.argfile' 'insertandshow'
Loading class `com.mysql.jdbc.Driver'. This is deprecated. The new driver class is `com.mysql.cj.jdbc.Driver'. The driver is automatically registered via the SPI and manual loading of the driver class is generally unnecessary.
Connection Created successfully.
JDBC Database Created.
Using JDBC Database.
Table Created Named EMP.
Data Inserted in Table EMP.
PS E:\JAVA Codes (in VS)>
```

```
mysql> use jdbc;
Database changed
mysql> show tables;
+-----+
| Tables_in_jdbc |
+-----+
| emp             |
+-----+
1 row in set (0.00 sec)

mysql> select * from emp;
+-----+-----+
| EMP_ID | EMP_NAME |
+-----+-----+
| 101    | Devendra |
| 102    | Rohan    |
| 103    | Ashok    |
| 104    | Parth    |
| 105    | Arjun    |
+-----+-----+
5 rows in set (0.00 sec)
```

Query 1

```
1 • show databases;
2 • use JDBC;
3 • show tables;
4 • select * from emp;
```

Result Grid

	EMP_ID	EMP_NAME
▶	101	Devendra
	102	Rohan
	103	Ashok
	104	Parth
	105	Arjun

emp 13

Output

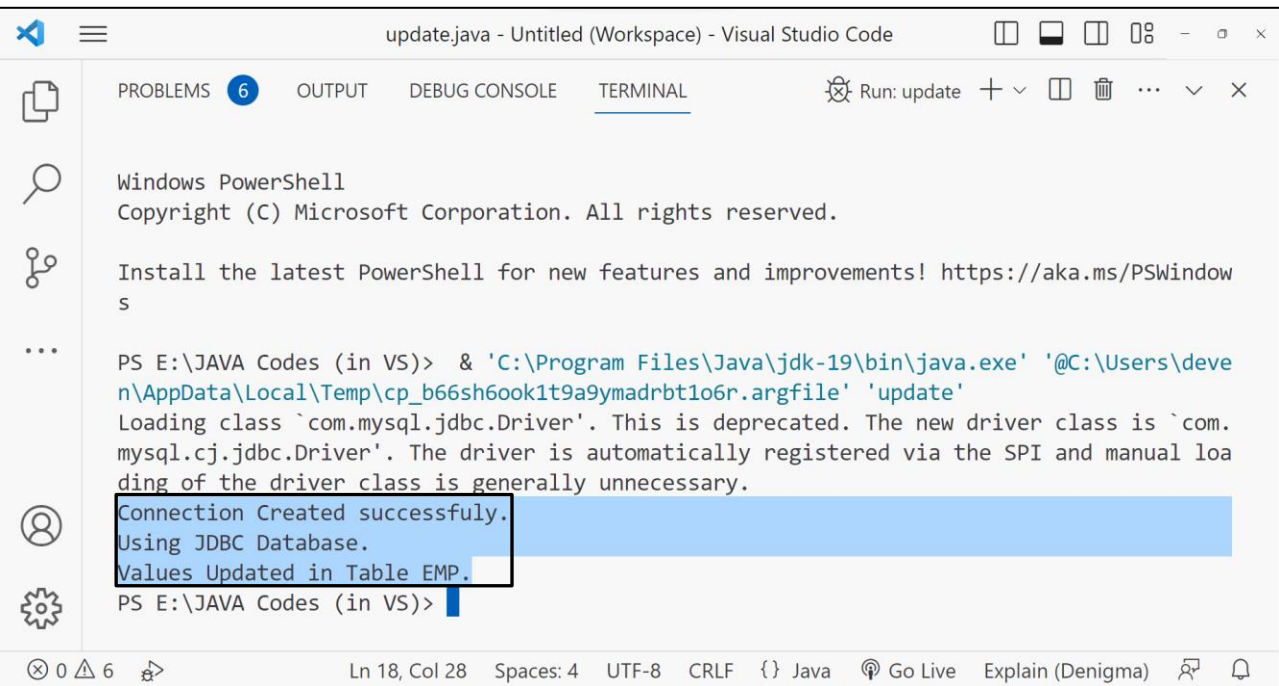
Action Output

#	Time	Action
✓ 1	09:50:25	show databases
✓ 2	09:50:25	use JDBC
✓ 3	09:50:25	show tables
✓ 4	09:56:02	select * from emp LIMIT 0, 1000

# UPDATE VALUES USING JDBC

	<pre>// USE Database</pre>
USE DATABASE QUERY	<pre>String usedbquery = "USE JDBC"; Statement stmt1=con.createStatement();</pre>
UPDATE STATEMENT	<pre>stmt1.executeUpdate(usedbquery);</pre>
OUTPUT STATEMENT	<pre>System.out.println(x:"Using JDBC Database.");</pre>
	<pre>// Update Command</pre>
UPDATE QUERY	<pre>String update = "UPDATE EMP SET EMP_NAME = \"Rishi\" WHERE EMP_ID = 102;"; Statement stmt2=con.createStatement();</pre>
UPDATE STATEMENT	<pre>stmt2.executeUpdate(update);</pre>
OUTPUT STATEMENT	<pre>System.out.println(x:"Values Updated in Table EMP.");</pre>

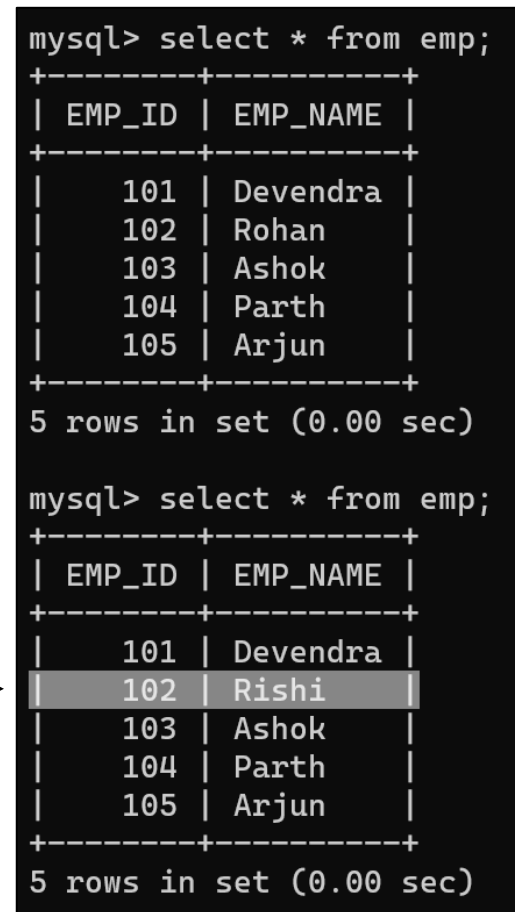
# OUTPUT AFTER UPDATING VALUES IN TABLE



```
update.java - Untitled (Workspace) - Visual Studio Code
PROBLEMS 6 OUTPUT DEBUG CONSOLE TERMINAL
Windows PowerShell
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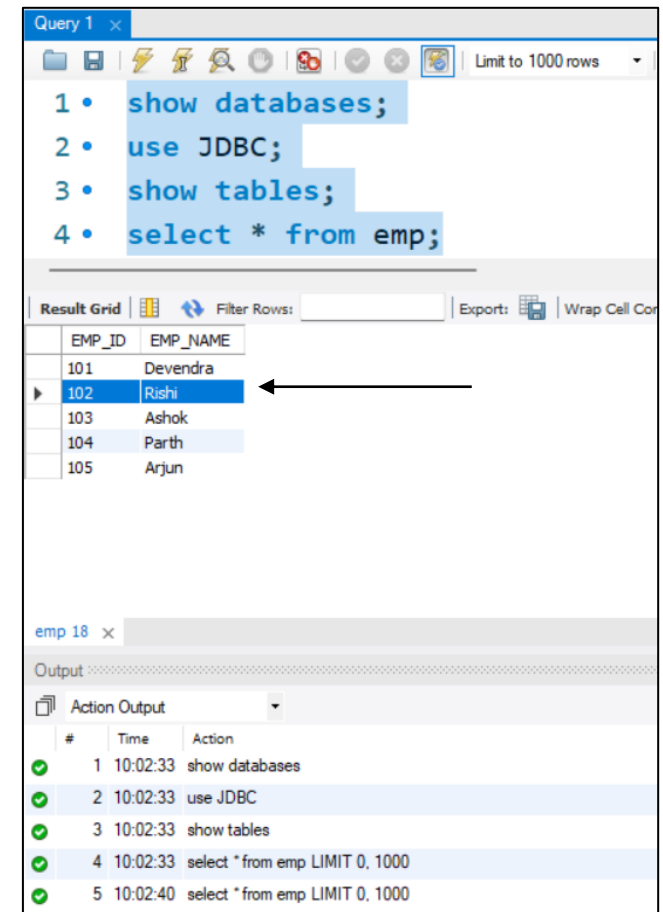
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PS E:\JAVA Codes (in VS)> & 'C:\Program Files\Java\jdk-19\bin\java.exe' '@C:\Users\devn\AppData\Local\Temp\cp_b66sh6ook1t9a9ymadrbt1o6r.argfile' 'update'
Loading class `com.mysql.jdbc.Driver'. This is deprecated. The new driver class is `com.mysql.cj.jdbc.Driver'. The driver is automatically registered via the SPI and manual loading of the driver class is generally unnecessary.
Connection Created successfully.
Using JDBC Database.
Values Updated in Table EMP.
PS E:\JAVA Codes (in VS)>
```



```
mysql> select * from emp;
+-----+-----+
| EMP_ID | EMP_NAME |
+-----+-----+
| 101    | Devendra |
| 102    | Rohan    |
| 103    | Ashok    |
| 104    | Parth    |
| 105    | Arjun    |
+-----+-----+
5 rows in set (0.00 sec)

mysql> select * from emp;
+-----+-----+
| EMP_ID | EMP_NAME |
+-----+-----+
| 101    | Devendra |
| 102    | Rishi    |
| 103    | Ashok    |
| 104    | Parth    |
| 105    | Arjun    |
+-----+-----+
5 rows in set (0.00 sec)
```



Query 1 x

Limit to 1000 rows

```
1 • show databases;
2 • use JDBC;
3 • show tables;
4 • select * from emp;
```

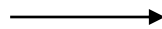
Result Grid

EMP_ID	EMP_NAME
101	Devendra
102	Rishi
103	Ashok
104	Parth
105	Arjun

emp 18 x

Output

#	Time	Action
✓ 1	10:02:33	show databases
✓ 2	10:02:33	use JDBC
✓ 3	10:02:33	show tables
✓ 4	10:02:33	select * from emp LIMIT 0, 1000
✓ 5	10:02:40	select * from emp LIMIT 0, 1000



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THANK YOU