

The screenshot shows the IntelliJ IDEA interface with a project named 'Task'. The 'src' directory contains five tasks: Task1, Task2, Task3, Task4, and Task5. The 'Task1.java' file is open, showing the following code:

```
1 package Task1;
2 import java.sql.Connection;
3 import java.sql.Driver;
4 import java.sql.DriverManager;
5
6 public class Task1 { new *
7     public static void main(String[] arg) { new *
8         try {
9             System.out.println("Name : Mahesh Nikas");
10            System.out.println("Batch : IT");
11            // load oracle driver
12            String oracleDriver="oracle.jdbc.driver.OracleDriver";
13            Class.forName(oracleDriver);
14            // Establish connection logic
15            Connection con= DriverManager.getConnection( url: "jdbc:oracle:thin:@localhost:1521:xe", user: "System", password: "Nikas@^1336");
16            System.out.println("connection Successfully");
```

The Run window shows the output of the program:

```
"C:\Program Files\Java\jdk-23\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025.2.6\lib\idea_rt.jar=49229" -Dfile.encoding=UTF-8 -Dsun.s
Name : Mahesh Nikas
Batch : IT
connection Successfully

Process finished with exit code 0
```

Task 1 Explanation:

- Loads Oracle JDBC Driver using Class.forName().
- Establishes connection with Oracle database using DriverManager.getConnection().
- Verifies database connectivity.

Sample Input Used: No user input

The screenshot shows the IntelliJ IDEA interface with the 'Task' project. The 'Task2.java' file is open, showing the following code:

```
1 package Task2;
2 import java.sql.*;
3 import java.util.Scanner;
4
5 public class Task2 { new *
6     public static void main(String[] arg) { new *
7         try {
8             System.out.println("Name : Mahesh Nikas");
9             System.out.println("Batch : IT");
10            // load oracle driver
11            String oracleDriver="oracle.jdbc.driver.OracleDriver";
12            Class.forName(oracleDriver);
13            // Establish connection
14            Connection con= DriverManager.getConnection( url: "jdbc:oracle:thin:@localhost:1521:xe", user: "System", password: "Nikas@^1336");
15            System.out.println("connection Successfully");
16            // *****
```

The Run window shows the output of the program, including user input:

```
"C:\Program Files\Java\jdk-23\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025.2.6\lib\idea_rt.jar=56864" -Dfile.encoding=UTF-8 -Dsun.s
Name : Mahesh Nikas
Batch : IT
connection Successfully

1  Rahul  20  85
2  Priya  21  90
3  Amit   19  78
4  Sneha  22  88
5  Vikas  20  99

Process finished with exit code 0
```

Task 7

2 Task Explanation:

- Creates JDBC connection.
- Executes SELECT query using Statement.
- Uses ResultSet to fetch and display all student records.

Sample Input Used: No user input

The screenshot displays the IntelliJ IDEA IDE. The top pane shows the source code for `Task3.java`. The code defines a `Task3` class with a `main` method that creates a JDBC connection, prepares an `INSERT` statement, sets parameters (id, Name, age, Marks), and executes the statement. The bottom pane shows the output of the program, which prompts for user input and displays the result of the `executeUpdate()` call.

```
public class Task3 {  
    public static void main(String[] arg) {  
        // create connection  
        PreparedStatement stmt=con.prepareStatement("Insert into student values(?,?,?,?)");  
        // set value  
        stmt.setInt( parameterIndex: 1,id);  
        stmt.setString( parameterIndex: 2,Name);  
        stmt.setInt( parameterIndex: 3,age);  
        stmt.setInt( parameterIndex: 4,Marks);  
        // execute statement  
        int count=stmt.executeUpdate();  
        System.out.println(count+" rows inserted");  
    }  
}
```

Run Task3 x

```
"C:\Program Files\Java\jdk-23\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025.2.6\lib\idea_rt.jar=56872" -Dfile.encoding=UTF-8 -Dsun.java2d.crispness=10  
Name : Mahesh Nikas  
Batch : IT  
connection Successfully  
Enter Id  
6  
Enter Name  
Mahesh  
Enter age  
22  
Enter Marks  
99  
1 rows inserted  
Process finished with exit code 0
```

3 Task Explanation:

- Uses PreparedStatement with INSERT query.
- Accepts Id, Name, Age, Marks from user.
- Executes `executeUpdate()` to insert record.

Sample Input Used: Id=6, Name=Mahesh, Age=22, Marks=99

The screenshot shows the IntelliJ IDEA interface with a project named 'Task'. The 'Task4' class is selected in the project view and is open in the editor. The code for Task4.java is as follows:

```
5 public class Task4 { new *
6     public static void main(String[] arg) { new *
23
24         // create connection
25         PreparedStatement stmt=con.prepareStatement(sql: "update student set marks=? where Id=?");
26         // set value
27         stmt.setInt( parameterIndex: 1,Marks);
28         stmt.setInt( parameterIndex: 2,id);
29         // execute statement
30         int count=stmt.executeUpdate();
31         System.out.println(count+" rows updated");
32         // close connection
33         con.close();
34         stmt.close();
35
36     }
```

The Run window shows the execution of Task4. The output is as follows:

```
Run Task4 x
"C:\Program Files\Java\jdk-23\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025.2.6\lib\idea_rt.jar=57578" -Dfile.encoding=UTF-8 -Dsun.s
Name : Mahesh Nikas
Batch : IT
connection Successfully
Enter Id
6
Enter Marks
82
1 rows updated

Process finished with exit code 0
```

4 Task Explanation:

- Uses PreparedStatement with UPDATE query.
- Accepts Id and new Marks from user.
- Updates record safely using parameters.

Sample Input Used: Id=6, Marks=82

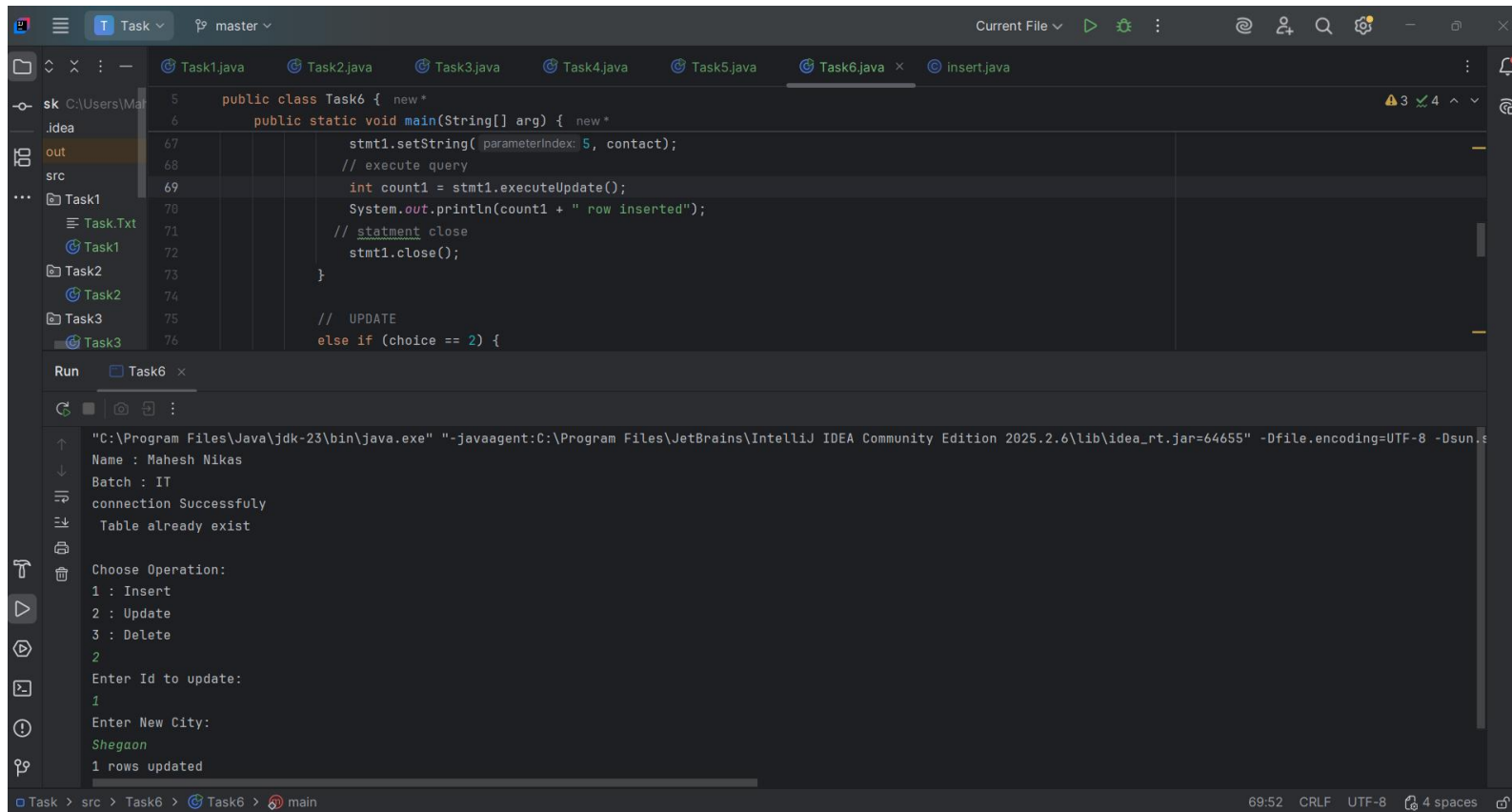
The screenshot shows the IntelliJ IDEA interface with a project named 'Task'. The 'Task5' class is selected in the project view and is open in the editor. The code for Task5.java is as follows:

```
5 public class Task5 { new *
6     public static void main(String[] arg) { new *
19         System.out.println("Enter Id");
20         int id=sc.nextInt();
21
22
23         // create connection
24         PreparedStatement stmt=con.prepareStatement(sql: "delete student where Id=?");
25         // set value
26         stmt.setInt( parameterIndex: 1,id);
27
28         // execute statement
29         int count=stmt.executeUpdate();
30         System.out.println(count+" rows deleted");
31         // close connection
32         con.close();
```

The Run window shows the execution of Task5. The output is as follows:

```
Run Task5 x
"C:\Program Files\Java\jdk-23\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025.2.6\lib\idea_rt.jar=57584" -Dfile.encoding=UTF-8 -Dsun.s
Name : Mahesh Nikas
Batch : IT
connection Successfully
Enter Id
6
1 rows deleted

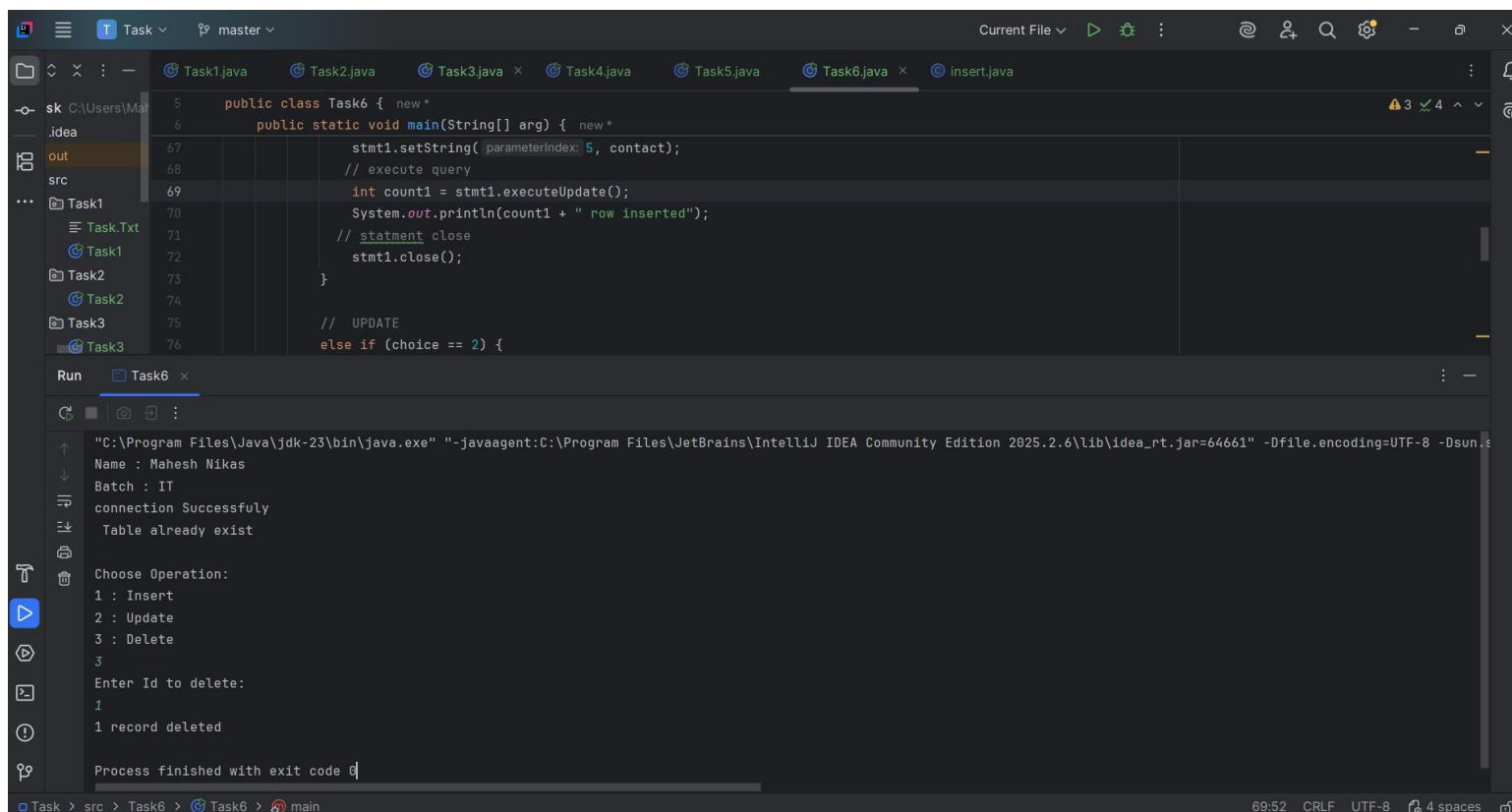
Process finished with exit code 0
```



5 Task Explanation:

- Uses PreparedStatement with DELETE query.
- Accepts Id from user.
- Deletes student record based on Id.

Sample Input Used: Id=6



Task 7

- Task 6

The screenshot shows the IntelliJ IDEA IDE with the file `Task6.java` open. The code defines a `Task6` class with a `main` method that connects to a database, creates a table, and inserts a row. The output window shows the successful execution of the program.

```
public class Task6 {  
    new *  
    public static void main(String[] arg) {  
        new *  
        String contact = sc.next();  
        // statement created  
        PreparedStatement stmt1 = con.prepareStatement("INSERT INTO employee VALUES (?, ?, ?, ?, ?)");  
        // set value  
        stmt1.setInt( parameterIndex: 1, id);  
        stmt1.setString( parameterIndex: 2, name);  
        stmt1.setString( parameterIndex: 3, email);  
        stmt1.setString( parameterIndex: 4, city);  
        stmt.setString( parameterIndex: 5, contact);  
        // execute query  
        int count1 = stmt1.executeUpdate();  
        System.out.println(count1 + " row inserted");  
        // statement close  
        stmt1.close();  
    }  
}
```

Run Task6 x

"C:\Program Files\Java\jdk-23\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025.2.6\lib\idea_rt.jar=63736" -Dfile.encoding=UTF-8 -Dsun.java2d.d3d=false

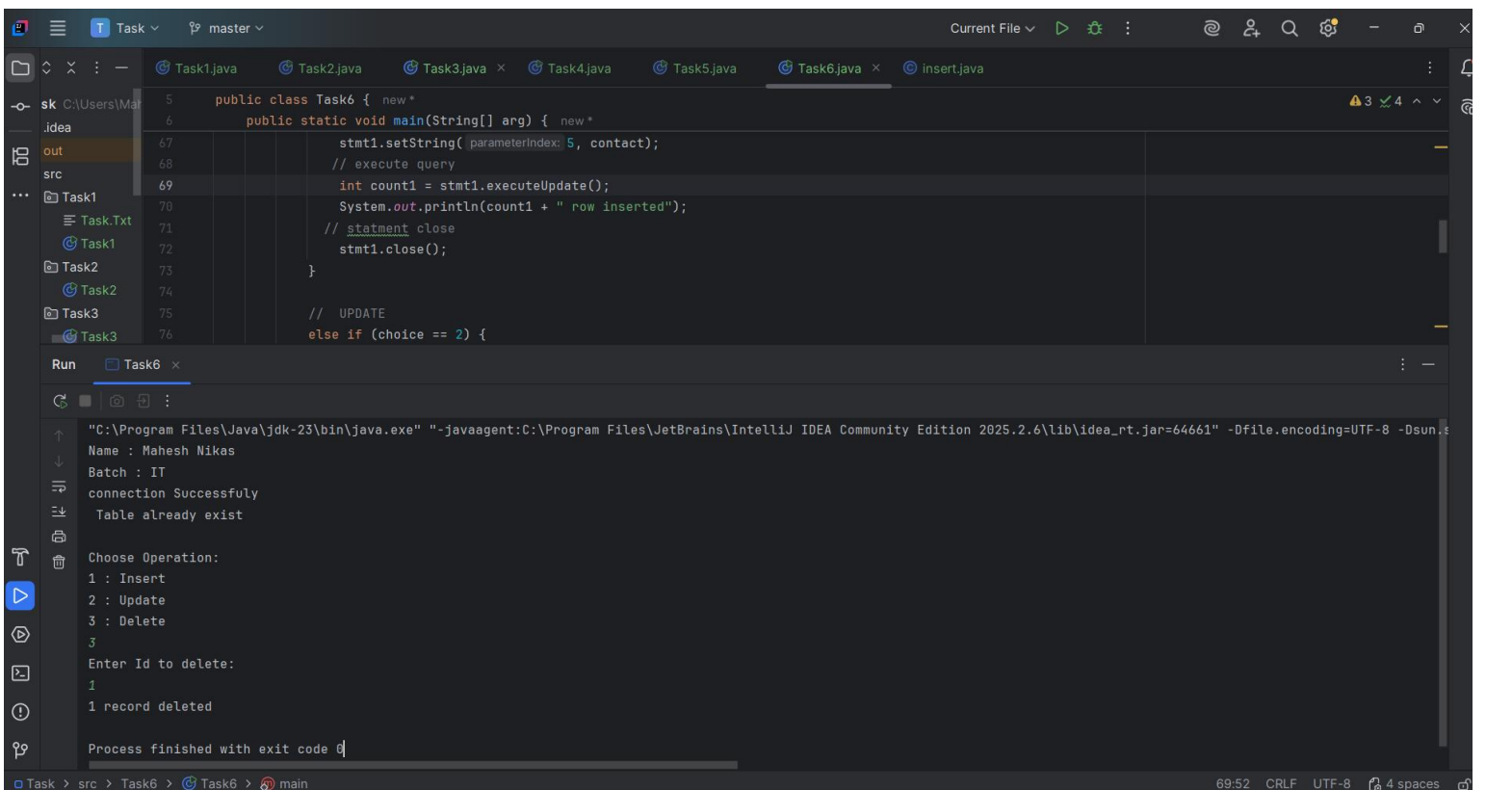
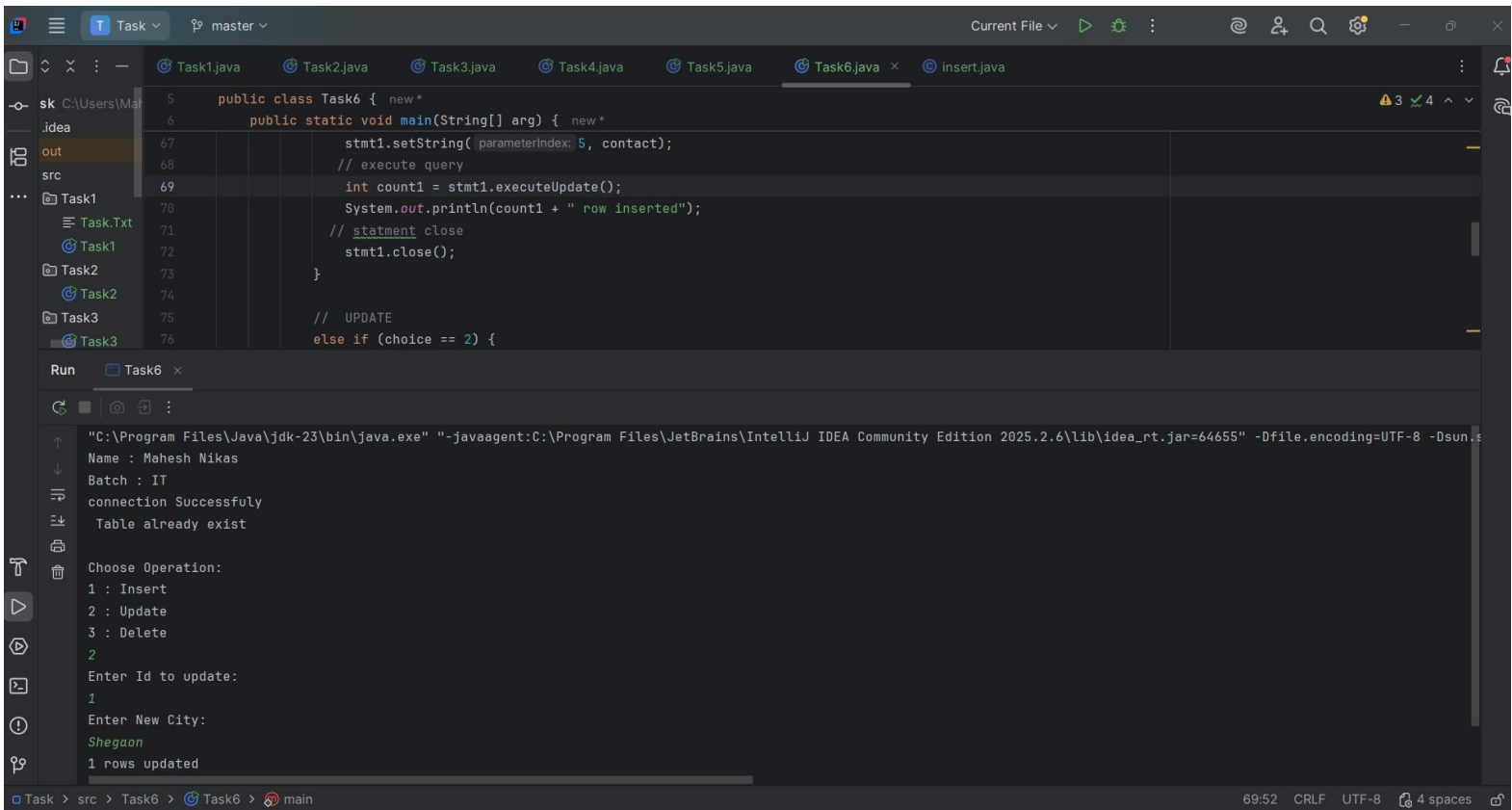
Name : Mahesh Nikas
Batch : IT
connection Successfully
table created
Choose Operation:
1 : Insert
2 : Update
3 : Delete

The screenshot shows the IntelliJ IDEA IDE with the file `Task6.java` open. The code is the same as in the previous screenshot. The output window shows the successful execution of the program, including user input for the database connection and the insertion of a row.

```
public class Task6 {  
    new *  
    public static void main(String[] arg) {  
        new *  
        stmt1.setString( parameterIndex: 5, contact);  
        // execute query  
        int count1 = stmt1.executeUpdate();  
        System.out.println(count1 + " row inserted");  
        // statement close  
    }  
}
```

Run Task6 x

Name : Mahesh Nikas
Batch : IT
connection Successfully
Table already exist
Choose Operation:
1 : Insert
2 : Update
3 : Delete
1
Enter Id:
1
Enter Name:
Mahesh
Enter Email:
mahesh@123gmail.com
Enter City:
Mehker
Enter Contact:
9356736650
1 row inserted



Task 7

The screenshot shows the IntelliJ IDEA IDE with the `Task7.java` file open. The code is as follows:

```
5 public class Task7 { new *
6     public static void main(String[] arg) { new *
35         stmt.setString( parameterIndex: 3, email);
36         stmt.setString( parameterIndex: 4, city);
37         stmt.setString( parameterIndex: 5, contact);
38         int count=stmt.executeUpdate();
39         System.out.println(count+"Row inserted");
40         //
41         System.out.println("\nFor update");
42         System.out.println("Enter the employee id");
43         int id=sc.nextInt();
44         System.out.println("Enter the employee contact");
45         String contact1=sc.next();
46         // create statement
47         PreparedStatement stmt1=con.prepareStatement( sql: "update employee set contact=? where id=?");
48         // set value
49         stmt1.setString( parameterIndex: 1,contact1);
50         stmt1.setInt( parameterIndex: 2,id1);
51         // execute statement
52         int count1=stmt1.executeUpdate();
53         System.out.println(count1+"Row updated");
```

The Run window shows the following output:

```
For update
Enter the employee id
2
Enter the employee contact
1234567894
1 row updated
```

The screenshot shows the IntelliJ IDEA IDE with the `Task7.java` file open. The code is as follows:

```
5 public class Task7 { new *
6     public static void main(String[] arg) { new *
35         stmt.setString( parameterIndex: 3, email);
36         stmt.setString( parameterIndex: 4, city);
37         stmt.setString( parameterIndex: 5, contact);
38         int count=stmt.executeUpdate();
39         System.out.println(count+"Row inserted");
40         //
41         System.out.println("\nFor update");
42         System.out.println("Enter the employee id");
43         int id=sc.nextInt();
44         System.out.println("Enter the employee contact");
```

The Run window shows the following output with user input:

```
"C:\Program Files\Java\jdk-23\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025.2.6\lib\idea_rt.jar=57852" -Dfile.encoding=UTF-8 -Dsun.java2d.d3d=false
Name : Mahesh Nikas
Batch : IT
connection Successfully

Insert value for inserting..
Enter Id:
4
Enter Name:
Mahesh
Enter Email:
mahesh@gmail.com
Enter City:
Mehker
Enter Contact:
9356736650
1Row inserted
```

Task 7