

## CODE

```
package Wrap;

import java.util.ArrayList;
import java.util.List;

public class First {

    public static int calculateSum(List<Integer> integerList) {
        int sum = 0;
        for (Integer num : integerList) {
            sum += num;
        }
        return sum;
    }

    public static Integer parseInteger(String str) {
        return Integer.parseInt(str);
    }

    public static void main(String[] args) {

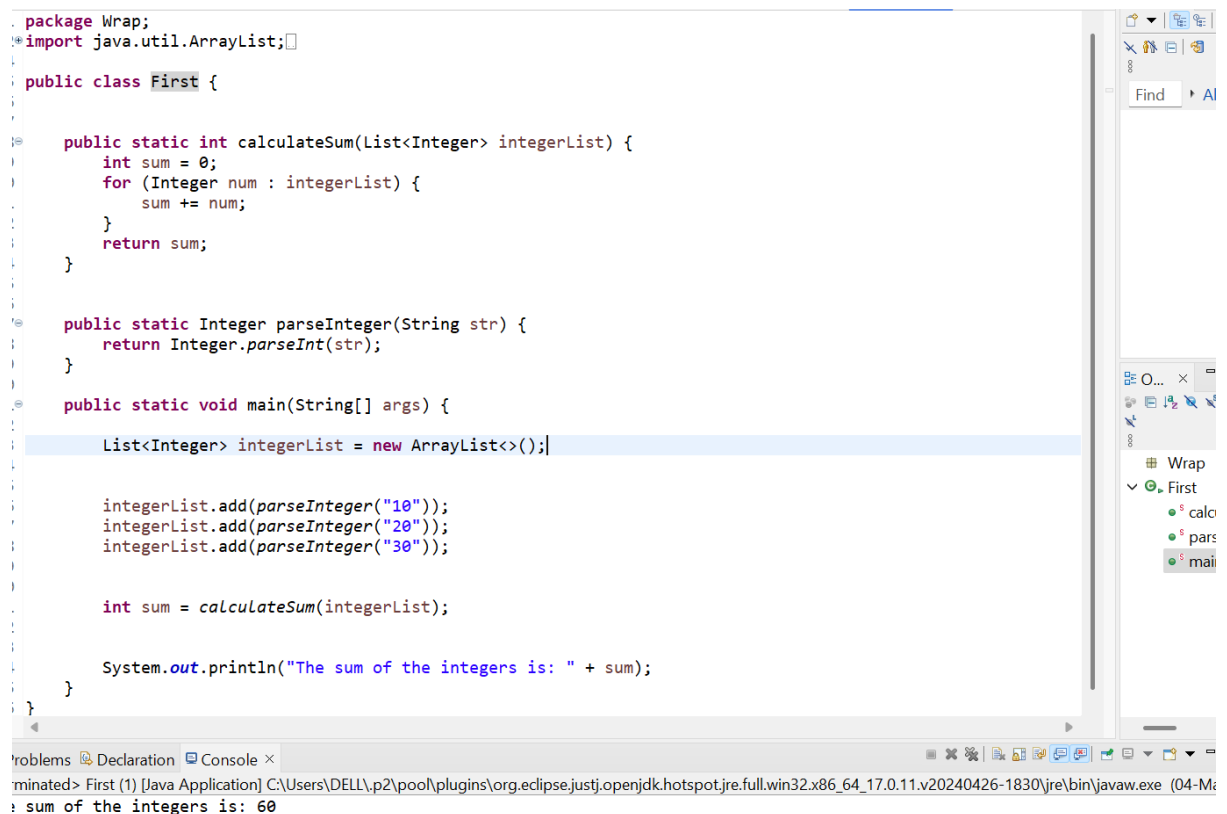
        List<Integer> integerList = new ArrayList<>();

        integerList.add(parseInteger("10"));
        integerList.add(parseInteger("20"));
        integerList.add(parseInteger("30"));
```

```
int sum = calculateSum(integerList);

System.out.println("The sum of the integers is: " + sum);
}
}
```

## OUTPUT



The screenshot shows an IDE with a Java file named 'First.java'. The code defines a class 'First' with three methods: 'calculateSum' which iterates through a list of integers and returns their sum, 'parseInteger' which converts a string to an integer, and 'main' which creates a list, adds the values '10', '20', and '30', calls 'calculateSum', and prints the result. The output in the console is 'sum of the integers is: 60'.

```
package Wrap;
import java.util.ArrayList;

public class First {

    public static int calculateSum(List<Integer> integerList) {
        int sum = 0;
        for (Integer num : integerList) {
            sum += num;
        }
        return sum;
    }

    public static Integer parseInteger(String str) {
        return Integer.parseInt(str);
    }

    public static void main(String[] args) {
        List<Integer> integerList = new ArrayList<>();

        integerList.add(parseInteger("10"));
        integerList.add(parseInteger("20"));
        integerList.add(parseInteger("30"));

        int sum = calculateSum(integerList);

        System.out.println("The sum of the integers is: " + sum);
    }
}
```

problems Declaration Console ×

minated> First (1) [Java Application] C:\Users\DELL\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86\_64\_17.0.11.v20240426-1830\jre\bin\javaw.exe (04-Mi

sum of the integers is: 60

## CODE

package name;

import java.sql.\*;

```
public class Mydb {

    private static final String URL = "jdbc:mysql://localhost:3306/amitdb";

    private static final String USER = "root";

    private static final String PASSWORD = "hraj72888@G";

    private Connection connection;

    public Mydb() {

        try {

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

            connection = DriverManager.getConnection(URL, USER, PASSWORD);

            System.out.println("✅ Database Connected Successfully!");

        } catch (ClassNotFoundException e) {

            System.err.println("❌ JDBC Driver not found! Add MySQL Connector JAR.");

        } catch (SQLException e) {

            System.err.println("❌ Connection failed! Check credentials. Error: " + e.getMessage());

        }

    }

    public void getAllEmployees() {

        String query = "SELECT * FROM employee";

        try (Statement stmt = connection.createStatement();

            ResultSet rs = stmt.executeQuery(query)) {

            System.out.println("\n🔗 Employee List:");

            while (rs.next()) {

                System.out.println("ID: " + rs.getInt("id") +

                    ", Name: " + rs.getString("name") +

                    ", Salary: " + rs.getDouble("salary"));

            }

        } catch (SQLException e) {
```

```
        System.err.println("✗ Error fetching employees: " + e.getMessage());
    }
}
```

```
public void addEmployee(int id,String name, double salary) {
    String query = "INSERT INTO employee (id,name, salary) VALUES (?,?, ?)";
    try (PreparedStatement stmt = connection.prepareStatement(query)) {
        stmt.setInt(1, id);
        stmt.setString(2, name);
        stmt.setDouble(3, salary);
        stmt.executeUpdate();
        System.out.println("✅ Employee added successfully: " + name);
    } catch (SQLException e) {
        System.err.println("✗ Error adding employee: " + e.getMessage());
    }
}
```

```
public void removeDuplicateEmployees() {
    String query = "DELETE e1 FROM employee e1 " +
        "INNER JOIN employee e2 " +
        "ON e1.name = e2.name AND e1.salary = e2.salary " +
        "WHERE e1.id > e2.id";
    try (Statement stmt = connection.createStatement()) {
        int rowsDeleted = stmt.executeUpdate(query);
        System.out.println("🗑️ " + rowsDeleted + " duplicate records removed.");
    } catch (SQLException e) {
        System.err.println("✗ Error removing duplicates: " + e.getMessage());
    }
}
```

```
}
```

```
public void closeConnection() {  
    if (connection != null) {  
        try {  
            connection.close();  
            System.out.println("✅ Database Connection Closed.");  
        } catch (SQLException e) {  
            System.err.println("❌ Error closing connection: " + e.getMessage());  
        }  
    }  
}
```

```
public static void main(String[] args) {  
    Mydb db = new Mydb();  
  
    db.addEmployee(109,"James", 5000);  
    db.addEmployee(110,"Harry Potter", 6000);  
    db.addEmployee(111,"John cena", 5500);  
    db.addEmployee(112,"Rahul", 8000);  
    db.addEmployee(113,"Ram", 5200);  
    db.addEmployee(140,"Devi", 6000);  
  
    db.getAllEmployees();  
  
    db.removeDuplicateEmployees();
```

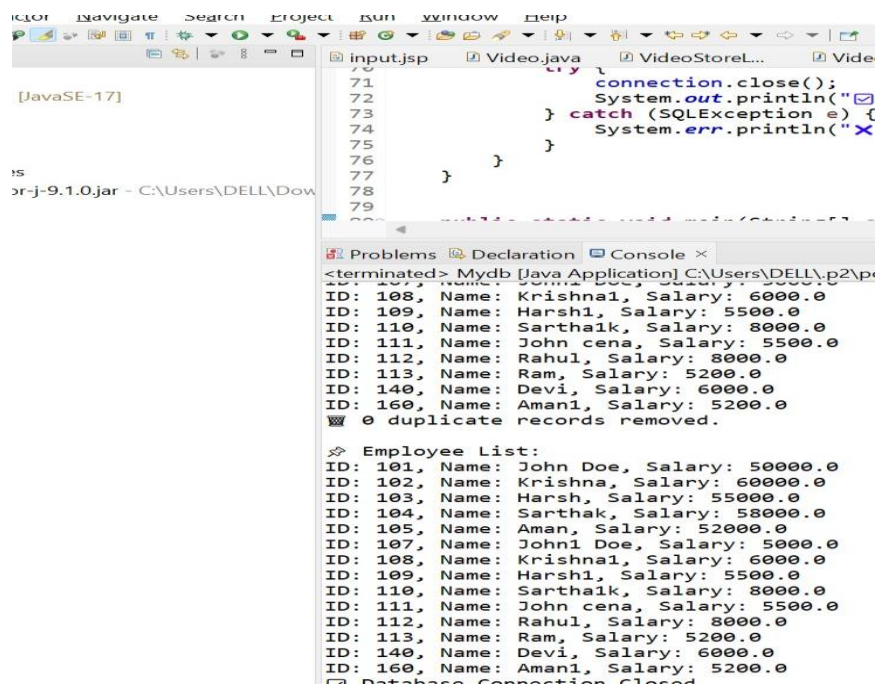
```
db.getAllEmployees();
```

```
db.closeConnection();
```

```
}
```

```
}
```

## OUTPUT



The screenshot shows an IDE with a Java file named `input.jsp` and a console window. The code in `input.jsp` is as follows:

```
71 connection.close();
72 System.out.println("Database Connection Closed.");
73 } catch (SQLException e) {
74     System.err.println("X");
75 }
76 }
77 }
78 }
79 }
```

The console window displays the following output:

```
<terminated> Mydb [Java Application] C:\Users\DELL\p2\p...
ID: 101, Name: John Doe, Salary: 50000.0
ID: 102, Name: Krishna, Salary: 60000.0
ID: 103, Name: Harsh, Salary: 55000.0
ID: 104, Name: Sarthak, Salary: 80000.0
ID: 105, Name: Aman, Salary: 52000.0
ID: 107, Name: John1 Doe, Salary: 5000.0
ID: 108, Name: Krishna1, Salary: 6000.0
ID: 109, Name: Harsh1, Salary: 5500.0
ID: 110, Name: Sarthak1, Salary: 8000.0
ID: 111, Name: John cena, Salary: 5500.0
ID: 112, Name: Rahul, Salary: 8000.0
ID: 113, Name: Ram, Salary: 5200.0
ID: 140, Name: Devi, Salary: 6000.0
ID: 160, Name: Aman1, Salary: 5200.0
0 duplicate records removed.

Employee List:
ID: 101, Name: John Doe, Salary: 50000.0
ID: 102, Name: Krishna, Salary: 60000.0
ID: 103, Name: Harsh, Salary: 55000.0
ID: 104, Name: Sarthak, Salary: 58000.0
ID: 105, Name: Aman, Salary: 52000.0
ID: 107, Name: John1 Doe, Salary: 5000.0
ID: 108, Name: Krishna1, Salary: 6000.0
ID: 109, Name: Harsh1, Salary: 5500.0
ID: 110, Name: Sarthak1, Salary: 8000.0
ID: 111, Name: John cena, Salary: 5500.0
ID: 112, Name: Rahul, Salary: 8000.0
ID: 113, Name: Ram, Salary: 5200.0
ID: 140, Name: Devi, Salary: 6000.0
ID: 160, Name: Aman1, Salary: 5200.0
Database Connection Closed
```