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Lab Assignment-1

Q1: Write a program to read values for all primitive datatypes including String And display them on the console.

Input:

```
package CoreJava;
```

```
import java.util.Scanner;
```

```
public class ReadPrimitiveDatatypes {
```

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

```
        // TODO Auto-generated method stub
```

```
        // Create a Scanner object to read input from the console
```

```
        Scanner sc = new Scanner(System.in);
```

```
        // Declare variables to store the primitive data types
```

```
        byte b;
```

```
        short s;
```

```
        int i;
```

```
        long l;
```

```
        float f;
```

```
        double d;
```

```
        boolean bool;
```

```
        String str;
```

```
        // Prompt the user to enter values for the primitive data types in a more  
        impressive way
```

```
        System.out.println("Behold! I am a Java program that can read the values  
        of all primitive datatypes, including String. Please enter the following values:");
```

```
        System.out.println("Byte: ");
```

```
        b = sc.nextByte();
```

```
        System.out.println("Short: ");
```

```
s = sc.nextShort();

System.out.println("Int: ");
i = sc.nextInt();

System.out.println("Long: ");
l = sc.nextLong();

System.out.println("Float: ");
f = sc.nextFloat();

System.out.println("Double: ");
d = sc.nextDouble();

System.out.println("Boolean (true or false): ");
bool = sc.nextBoolean();
sc.nextLine();

System.out.println("String: ");
str = sc.nextLine();

// Display the primitive data types on the console in a more impressive way
System.out.println("Behold! The values of the primitive data types that
you entered are:");

System.out.println("Byte: " + b);
System.out.println("Short: " + s);
System.out.println("Int: " + i);
System.out.println("Long: " + l);
System.out.println("Float: " + f);
System.out.println("Double: " + d);
System.out.println("Boolean: " + bool);
System.out.println("String: " + str);

// Add a bonus flourish to the end of the program
System.out.println("I hope you were impressed with my ability to read and
display the values of all primitive datatypes. Farewell!");
sc.close();

}

}
```

Output:

Behold! I am a Java program that can read the values of all primitive datatypes, including String. Please enter the following values:

Byte:

123

Short:

32767

Int:

2147483647

Long:

9223372036854775807

Float:

3.14159265359

Double:

1.234567890123456789

Boolean (true or false):

true

String:

Hi,I will be a java developer soon....!

Behold! The values of the primitive data types that you entered are:

Byte: 123

Short: 32767

Int: 2147483647

Long: 9223372036854775807

Float: 3.1415927

Double: 1.2345678901234567

Boolean: true

String: Hi,I will be a java developer soon....!

I hope you were impressed with my ability to read and display the values of all primitive datatypes. Farewell!

Q2: Create a program that takes two numbers as input from the user and performs basic arithmetic operations (addition, subtraction, multiplication, division) and display.

Input:

```
package CoreJava;  
import java.util.Scanner;
```

```
public class BasicArithmeticOperations {  
  
    public static void main(String[] args) {  
        // TODO Auto-generated method stub  
        // Create a Scanner object to read input from the user.  
        Scanner sc = new Scanner(System.in);  
  
        // Prompt the user to enter two numbers.  
        System.out.println("Enter the first number: ");  
        double num1 = sc.nextDouble();  
  
        System.out.println("Enter the second number: ");  
        double num2 = sc.nextDouble();  
  
        // Perform the arithmetic operations.  
        double sum = num1 + num2;  
        double difference = num1 - num2;  
        double product = num1 * num2;  
        double quotient = num1 / num2;  
  
        // Display the results.  
        System.out.println("The sum of the two numbers is: " + sum);  
        System.out.println("The difference of the two numbers is: " + difference);  
        System.out.println("The product of the two numbers is: " + product);  
        System.out.println("The quotient of the two numbers is: " + quotient);  
  
        // Close the Scanner object.  
        sc.close();  
  
    }  
  
}
```

Output:

Enter the first number:

12

Enter the second number:

14

The sum of the two numbers is: 26.0

The difference of the two numbers is: -2.0

The product of the two numbers is: 168.0

The quotient of the two numbers is: 0.8571428571428571