CSW Assignment-6

Name-Anupam Chandra

2341003015

Serial no-10

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Q1

. Write a program to convert an integer to an Integer object. (a) Autoboxing (b) Using Constructor

```java
package pack6;

public class As6_Q1 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
         int Int = 29;

            Integer autoboxedInteger = Int;
            System.out.println("Autoboxed Integer: " + autoboxedInteger);

            Integer constructedInteger = new Integer(Int);
            System.out.println("Constructed Integer: " + constructedInteger);
    }

}
```

```
PS C:\Users\anupa>  & 'C:\Program F
66516\jdt_ws\jdt.ls-java-project\bi
Autoboxed Integer: 29
Constructed Integer: 29
PS C:\Users\anupa>
```

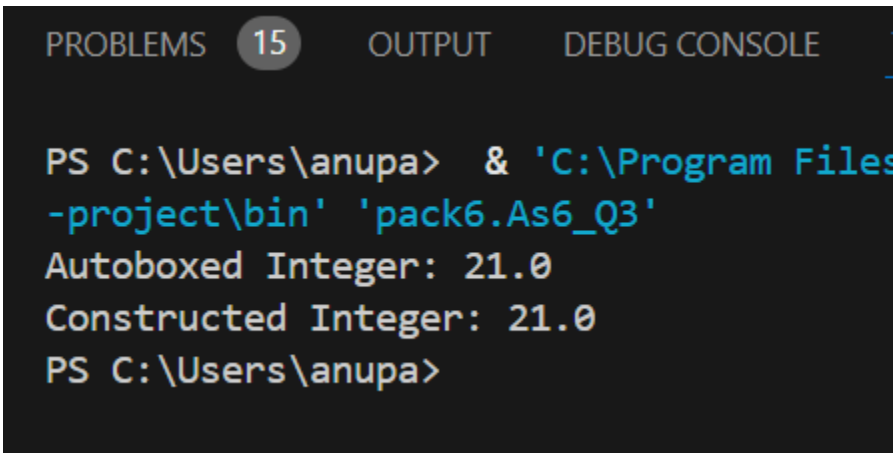
Q2. Write a program to convert a float to a Float object. (a) Autoboxing (b) Using Constructor

```java
package pack6;

public class As6_Q2 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub

         float Float = 22;

            float autoboxedInteger = Float;
            System.out.println("Autoboxed Integer: " + autoboxedInteger);

            float constructedInteger = new Float(Float);
            System.out.println("Constructed Integer: " + constructedInteger);

    }

}
```

```
PS C:\Users\anupa>  & 'C:\Prog
-project\bin' 'pack6.As6_Q2'
Autoboxed Integer: 22.0
Constructed Integer: 22.0
PS C:\Users\anupa>
```

Q3. Write a program to convert a double to a Double object. (a) Autoboxing (b) Using Constructor

```java
package pack6;

public class As6_Q3 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub

        double Double = 21;

        double autoboxedInteger = Double;
        System.out.println("Autoboxed Integer: " + autoboxedInteger);

        double constructedInteger = new Double(Double);
        System.out.println("Constructed Integer: " + constructedInteger);

    }

}
```



Q4. Write a program to convert a boolean to a Boolean object. (a) Autoboxing (b) Using Constructor

```
package pack6;

public class As6_Q4 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub

          boolean primitiveBoolean = true;

            Boolean autoboxedBoolean = primitiveBoolean;
            System.out.println("Autoboxed Boolean: " + autoboxedBoolean);

            Boolean constructedBoolean = new Boolean(primitiveBoolean);
```

```
            System.out.println("Constructed Boolean: " + constructedBoolean);

    }

}
```

```
PS C:\Users\anupa>  & 'C:\Progra
-project\bin' 'pack6.As6_Q4'
Autoboxed Boolean: true
Constructed Boolean: true
PS C:\Users\anupa>
```

Q5. Write a program to read an integer as a string and convert it to an Integer object.

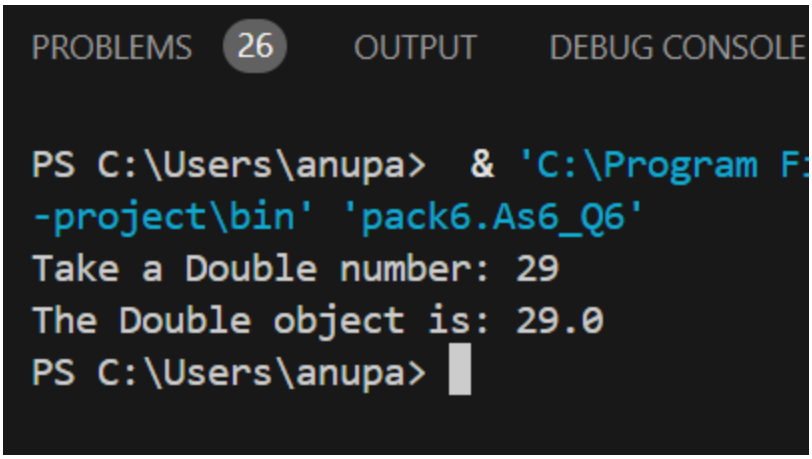
```
package pack6;
```

```java
import java.util.Scanner;

public class As6_Q5 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub



        Scanner sc= new Scanner(System.in);
        System.out.print("Take a Float number: ");
        String n= sc.nextLine();

        try {
            Float i = Float.valueOf(n);

            System.out.println("The Float object is: " + i);
        } catch (NumberFormatException e) {
            System.out.println("Invalid input. Please enter a valid Float
value.");
        }

    }

}
```

```
PROBLEMS 23    OUTPUT    DEBUG CONSOLE    T

PS C:\Users\anupa>  & 'C:\Program Files'
-project\bin' 'pack6.As6_Q4'
Autoboxed Boolean: true
Constructed Boolean: true
PS C:\Users\anupa>
```

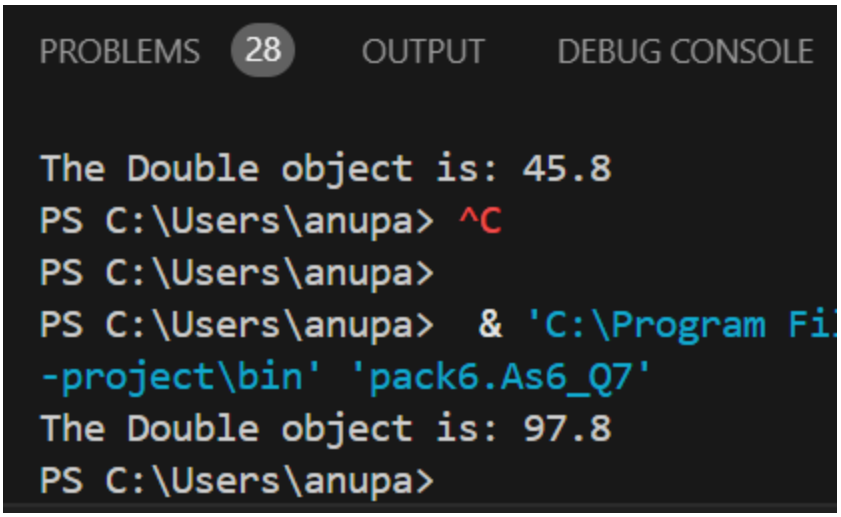
Q6. Write a program to read a float as a string and convert it to a Float object.

```
package pack6;

import java.util.Scanner;

public class As6_Q6 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub



        Scanner sc= new Scanner(System.in);
        System.out.print("Take a Double number: ");
        String n= sc.nextLine();

        try {
            Double i = Double.valueOf(n);

            System.out.println("The Double object is: " + i);
        } catch (NumberFormatException e) {
            System.out.println("Invalid input. Please enter a valid Double
value.");
        }

    }

}
```



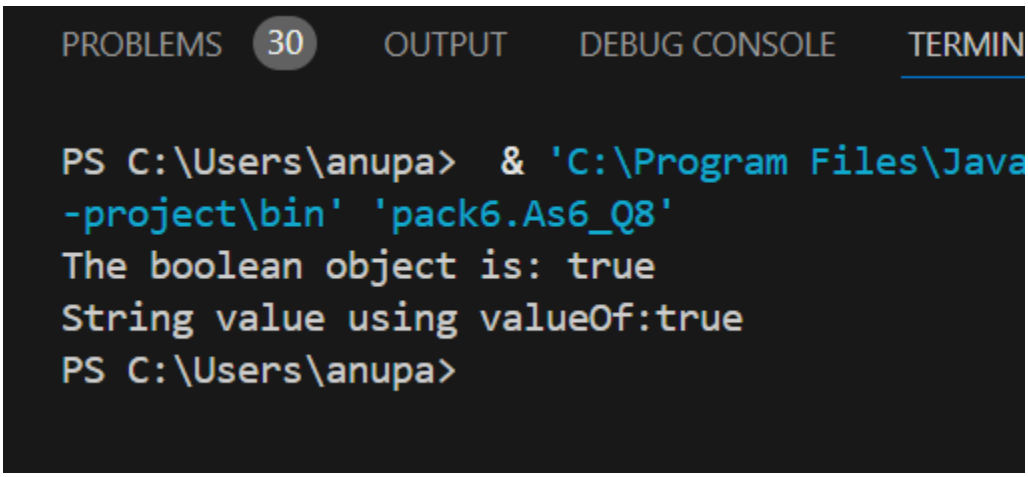
Q7. Write a program to read a double as a string and convert it to a Double object.

```java
package pack6;

public class As6_Q7 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub

        String doubleString = "97.8";
        double doubleObject = Double.parseDouble(doubleString);
        System.out.println("The Double object is: " +  doubleObject );

    }

}
```



Q8. Write a program to read a boolean as a string and convert it to a Boolean object. Explain the concept of converting a base data type to an object type(Wrapping) using the valueOf() method.

```java
package pack6;

public class As6_Q8 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        String booleanString = "true";
        boolean booleanObject = Boolean.parseBoolean(booleanString);
        System.out.println("The boolean object is: " + booleanObject );

        Boolean StringValue= Boolean.valueOf(booleanObject);
        System.out.println("String value using valueOf:"+ StringValue);
    }

}
```



Q9. Write a program that reads to convert int, float, double, and boolean as string types and convert them to respective object types using the valueOf method.

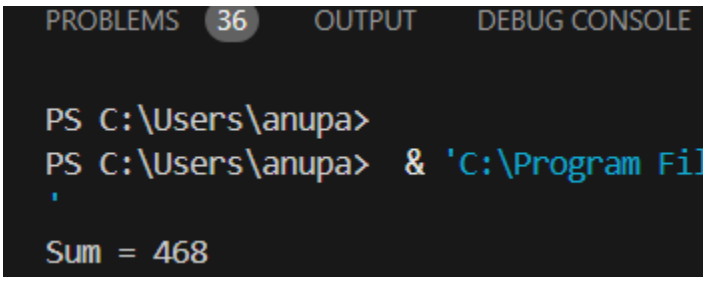
```
package pack6;

public class As6_Q9 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub



        String num1 = "29";
        Integer i = Integer.valueOf (num1);
        System.out.println("Integer object: " + i);

        String num2 = "97.8f";
        Float f = Float.valueOf (num2);
```

```
        System.out.println("Float object: " + f);

        String num3 = "12.6";
        Double d = Double.valueOf (num3);
        System.out.println("Double object: " + d);

        String num4 = "true";
        Boolean b = Boolean.valueOf (num4);
        System.out.println("Boolean object: " + b);


    }

}
```

```
PROBLEMS 32    OUTPUT    DEBUG CONSOLE

PS C:\Users\anupa>  & 'C:\Program Fil
-project\bin' 'pack6.As6_Q9'
Integer object: 29
Float object: 97.8
Double object: 12.6
Boolean object: true
PS C:\Users\anupa>
```

Q10. Write a program to design a simple calculator (only +,-,*,/ operations). The calculator works as follows: Input: "123+345" Output: Sum=468 Input: "5*10" Output: mul=50 Explain the concept of converting object type to base type. Explain the method used to do so.

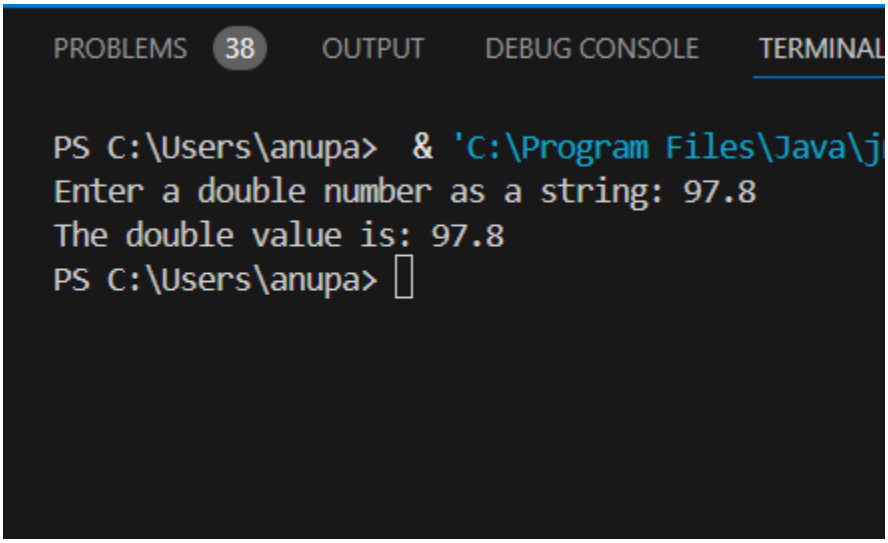
```java
public class As6_Q10 {

    public static void main(String[] args) {
        String input = "123+345";
        String operator = "";
        int num1 = 0, num2 = 0;

        for (int i = 0; i < input.length(); i++) {
            if (input.charAt(i) == '+') {
                operator = "+";
                num1 = Integer.parseInt(input.substring(0, i));
                num2 = Integer.parseInt(input.substring(i + 1));
                break;
            }
        }

        int result = 0;
        if (operator=="+") {
            result = num1 + num2;
        }

        System.out.println("Sum = " + result);
    }
}
```



Q11. Write a program that reads a double number as a sting and converts it to a double base type.

```
package pack6;
import java.util.Scanner;
public class As6_Q11 {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
            Scanner sc = new Scanner(System.in);
            System.out.print("Enter a double number as a string: ");

            String doubleString = sc.nextLine(); // Input as String
            double doubleValue = Double.parseDouble(doubleString); // Convert to
double

            System.out.println("The double value is: " + doubleValue);
            sc.close();
    }
```

```
}
```



Q12. Write a program that reads an integer number as a sting and converts it to an int base type.

```java
package pack6;
import java.util.Scanner;
public class As6_Q12 {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		Scanner sc = new Scanner(System.in);
		System.out.print("Enter an integer number as a string: ");
```

```
        String intString = sc.nextLine();
        int intValue = Integer.parseInt(intString);

        System.out.println("The integer value is: " + intValue);
        sc.close();
        }

    }
```