

## ASSIGNMENT NO.2

**Note:** Consider the following before starting the assignment:

- A **static field** declared inside a class is called a **class-level variable**. To access this variable, use the class name and the dot operator (e.g., `Integer.MAX_VALUE`).
- A **static method** defined inside a class is called a **class-level method**. To access this method, use the class name and the dot operator (e.g., `Integer.parseInt()`).
- When accessing static members within the same class, you do not need to use the class name.

### 1. Working with `java.lang.Boolean`

a. Explore the [Java API documentation for `java.lang.Boolean`](#) and observe its modifiers and super types.

b. Declare a method-local variable `status` of type `boolean` with the value `true` and convert it to a `String` using the `toString` method. (Hint: Use `Boolean.toString(Boolean)` ).

Sol:- 

```
class HelloWorld {
```

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

```
        boolean status = true;
```

```
        String s1 = Boolean.toString(status);
```

```
        System.out.println(s1);
```

```
    }
```

```
}
```

c. Declare a method-local variable `strStatus` of type `String` with the value `"true"` and convert it to a `boolean` using the `parseBoolean` method. (Hint: Use `Boolean.parseBoolean(String)` ).

Sol:-

```
class HelloWorld {
```

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

```
        String s1 = "true";
```

```
        boolean status = Boolean.parseBoolean(s1);
```

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```
        System.out.println(status);  
    }  
}
```

**d. Declare a method-local variable `strStatus` of type `String` with the value "1" or "0" and attempt to convert it to a `boolean`. (Hint: `parseBoolean` method will not work as expected with "1" or "0").**

**Sol:-** `parseBoolean` does not recognise '1' or '0' and is giving false for both

to convert proper we need a logic to convert 1 to true and 0 to false

```
class HelloWorld {  
    public static void main(String[] args) {  
        String s1 = "1";  
        if(s1.equals("1"))  
            s1="true";  
        else if(s1.equals("0"))  
            s1="false";  
        boolean status = Boolean.valueOf(s1);  
        System.out.println(status);  
    }  
}
```

**e. Declare a method-local variable `status` of type `boolean` with the value `true` and convert it to the corresponding wrapper class using `Boolean.valueOf()`. (Hint: Use `Boolean.valueOf(boolean)`).**

**Sol:-**

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```
class HelloWorld {  
  
    public static void main(String[] args) {  
  
        boolean b =true;  
  
        Boolean a = Boolean.valueOf(b);  
  
        System.out.println(a);  
  
    }  
}
```

**f. Declare a method-local variable `strStatus` of type `String` with the value `"true"` and convert it to the corresponding wrapper class using `Boolean.valueOf()`. (Hint: Use `Boolean.valueOf(String)`).**

**Sol:-**

```
class HelloWorld {  
  
    public static void main(String[] args) {  
  
        String b ="true";  
  
        Boolean a = Boolean.valueOf(b);  
  
        System.out.println(a);  
  
    }  
}
```

**g. Experiment with converting a `boolean` value into other primitive types or vice versa and observe the results.**

**Sol:-** for all it gives incompatible type conversion error

## 2. Working with `java.lang.Byte`

a. Explore the [Java API documentation for `java.lang.Byte`](#) and observe its modifiers and super types.

b. Write a program to test how many bytes are used to represent a `byte` value using the `BYTES` field. (Hint: Use `Byte.BYTES`).

Sol:-

```
class HelloWorld {

    public static void main(String[] args) {

        System.out.println(Byte.BYTES);

    }

}
```

it uses 1 byte to store a byte

c. Write a program to find the minimum and maximum values of `byte` using the `MIN_VALUE` and `MAX_VALUE` fields. (Hint: Use `Byte.MIN_VALUE` and `Byte.MAX_VALUE`).

```
class HelloWorld {

    public static void main(String[] args) {

        byte b=2;

        System.out.println(Byte.MIN_VALUE);

    }

}
```

min value is -128.

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**d.** Declare a method-local variable `number` of type `byte` with some value and convert it to a `String` using the `toString` method. (Hint: Use `Byte.toString(byte)`).

```
class HelloWorld {  
  
    public static void main(String[] args) {  
  
        byte number= 123;  
  
        String s1=Byte.toString(number);  
  
        System.out.println(s1);  
  
    }  
}
```

**e.** Declare a method-local variable `strNumber` of type `String` with some value and convert it to a `byte` value using the `parseByte` method. (Hint: Use `Byte.parseByte(String)`).

```
class HelloWorld {  
  
    public static void main(String[] args) {  
  
        String number= "123";  
  
        byte s1=Byte.parseByte(number);  
  
        System.out.println(s1);  
  
    }  
}
```

**f.** Declare a method-local variable `strNumber` of type `String` with the value `"Ab12Cd3"` and attempt to convert it to a `byte` value. (Hint: `parseByte` method will throw a `NumberFormatException`).

```
class HelloWorld {  
  
    public static void main(String[] args) {  
  
        String number= "Ab12Cd3";
```

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```
byte s1=Byte.parseByte(number);

System.out.println(s1);

}

}
```

**g.** Declare a method-local variable `number` of type `byte` with some value and convert it to the corresponding wrapper class using `Byte.valueOf()`. (Hint: Use `Byte.valueOf(byte)`)

```
class HelloWorld {

    public static void main(String[] args) {

        byte number= 12;

        Byte s1=Byte.valueOf(number);

        System.out.println(s1);

    }

}

.
```

**h.** Declare a method-local variable `strNumber` of type `String` with some byte value and convert it to the corresponding wrapper class using `Byte.valueOf()`. (Hint: Use `Byte.valueOf(String)`).

```
class HelloWorld {

    public static void main(String[] args) {

        String number= "12";
```

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```
Byte s1=Byte.valueOf(number);

System.out.println(s1);

}

}
```

i. Experiment with converting a `byte` value into other primitive types or vice versa and observe the results

`byte` can be converted to other primitive data types but other data types cannot be converted without explicit type casting (narrowing)

### 3. Working with `java.lang.Short`

a. Explore the [Java API documentation for `java.lang.Short`](#) and observe its modifiers and super types.

b. Write a program to test how many bytes are used to represent a `short` value using the `BYTES` field. (Hint: Use `Short.BYTES`).

```
class HelloWorld {

    public static void main(String[] args) {

        System.out.println(Short.BYTES);

    }

}
```

c. Write a program to find the minimum and maximum values of `short` using the `MIN_VALUE` and `MAX_VALUE` fields. (Hint: Use `Short.MIN_VALUE` and `Short.MAX_VALUE`).

```
class HelloWorld {

    public static void main(String[] args) {

        System.out.println(Short.MIN_VALUE+" "+Short.MAX_VALUE);

    }

}
```

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```
}
```

```
min=-32768 max=32767
```

**d.** Declare a method-local variable `number` of type `short` with some value and convert it to a `String` using the `toString` method. (Hint: Use `Short.toString(short)`).

```
class HelloWorld {  
  
    public static void main(String[] args) {  
  
        short s=123;  
  
        String a=Short.toString(s);  
  
        System.out.println(a);  
  
    }  
}
```

**e.** Declare a method-local variable `strNumber` of type `String` with some value and convert it to a `short` value using the `parseShort` method. (Hint: Use `Short.parseShort(String)`).

```
class HelloWorld {  
  
    public static void main(String[] args) {  
  
        String s="123";  
  
        short a=Short.parseShort(s);  
  
        System.out.println(a);  
  
    }  
}
```



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**f.** Declare a method-local variable `strNumber` of type `String` with the value `"Ab12Cd3"` and attempt to convert it to a `short` value. (Hint: `parseShort` method will throw a `NumberFormatException`).

it throws `NUmberformatexception` error

**g.** Declare a method-local variable `number` of type `short` with some value and convert it to the corresponding wrapper class using `Short.valueOf()`. (Hint: Use `Short.valueOf(short)`).

```
class HelloWorld {  
  
    public static void main(String[] args) {  
  
        short number=123;  
  
        short a=Short.valueOf(number);  
  
        System.out.println(a);  
  
    }  
}
```

**h.** Declare a method-local variable `strNumber` of type `String` with some `short` value and convert it to the corresponding wrapper class using `Short.valueOf()`. (Hint: Use `Short.valueOf(String)`).

```
class HelloWorld {  
  
    public static void main(String[] args) {  
  
        String number="123";  
  
        short a=Short.valueOf(number);  
  
        System.out.println(a);  
  
    }  
}
```

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i. Experiment with converting a `short` value into other primitive types or vice versa and observe the results.

`short` can be converted to `int`, `float`, `double` but to convert from `int`, `double`, `float` to `short` we need (narrowing)

### 4. Working with `java.lang.Integer`

a. Explore the [Java API documentation for `java.lang.Integer`](#) and observe its modifiers and super types.

b. Write a program to test how many bytes are used to represent an `int` value using the `BYTES` field. (Hint: Use `Integer.BYTES`).

```
class HelloWorld {  
  
    public static void main(String[] args) {  
  
        System.out.println(Integer.BYTES);  
  
    }  
}
```

4 bytes

c. Write a program to find the minimum and maximum values of `int` using the `MIN_VALUE` and `MAX_VALUE` fields. (Hint: Use `Integer.MIN_VALUE` and `Integer.MAX_VALUE`).

```
class HelloWorld {  
  
    public static void main(String[] args) {  
  
        System.out.println(Integer.MIN_VALUE+" "+Integer.MAX_VALUE);  
  
    }  
}
```

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**d.** Declare a method-local variable `number` of type `int` with some value and convert it to a `String` using the `toString` method. (Hint: Use `Integer.toString(int)`).

```
class HelloWorld {  
  
    public static void main(String[] args) {  
  
        int n=1234;  
  
        String s1=Integer.toString(n);  
  
        System.out.println(s1);  
  
    }  
}
```

**e.** Declare a method-local variable `strNumber` of type `String` with some value and convert it to an `int` value using the `parseInt` method. (Hint: Use `Integer.parseInt(String)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        //  
  
        String s1 = "123";  
  
        int i = Integer.parseInt(s1);  
  
        System.out.println(i);  
  
    }  
  
}
```

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**f.** Declare a method-local variable `strNumber` of type `String` with the value `"Ab12Cd3"` and attempt to convert it to an `int` value. (Hint: `parseInt` method will throw a `NumberFormatException`).

it throws `java.lang.NumberFormatException`

**g.** Declare a method-local variable `number` of type `int` with some value and convert it to the corresponding wrapper class using `Integer.valueOf()`. (Hint: Use `Integer.valueOf(int)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        int number =123;  
  
        Integer i = Integer.valueOf(number);  
  
        System.out.println(i);  
  
    }  
  
}
```

**h.** Declare a method-local variable `strNumber` of type `String` with some integer value and convert it to the corresponding wrapper class using `Integer.valueOf()`. (Hint: Use `Integer.valueOf(String)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        String s1 = "123";  
  
        int i = Integer.valueOf(s1);  
  
        System.out.println(i);  
  
    }  
  
}
```

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i. Declare two integer variables with values 10 and 20, and add them using a method from the `Integer` class. (Hint: Use `Integer.sum(int, int)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        int i=20;int j=30;  
  
        int result = Integer.sum(i, j);  
  
        System.out.println(result);  
  
    }  
  
}
```

j. Declare two integer variables with values 10 and 20, and find the minimum and maximum values using the `Integer` class. (Hint: Use `Integer.min(int, int)` and `Integer.max(int, int)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        int i=20;int j=30;  
  
        int result = Integer.max(i, j);  
  
        System.out.println(result);  
  
    }  
  
}
```

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**k.** Declare an integer variable with the value 7. Convert it to binary, octal, and hexadecimal strings using methods from the `Integer` class. (Hint: Use `Integer.toString(int)`, `Integer.toOctalString(int)`, and `Integer.toHexString(int)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        int i=7;  
  
        String result = Integer.toString(i);  
  
        String r1 = Integer.toOctalString(i);  
  
        String r2 = Integer.toHexString(i);  
  
        System.out.println(result+" "+r1+" "+r2);  
  
    }  
  
}
```

**l.** Experiment with converting an `int` value into other primitive types or vice versa and observe the results.

`int` can be converted into `double` `float` `long`

### 5. Working with `java.lang.Long`

**a.** Explore the [Java API documentation for `java.lang.Long`](#) and observe its modifiers and super types.

**b.** Write a program to test how many bytes are used to represent a `long` value using the `BYTES` field. (Hint: Use `Long.BYTES`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        System.out.println(Long.BYTES);  
  
    }  
  
}
```

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```
}
```

it gives output 8 bytes

**c.** Write a program to find the minimum and maximum values of `long` using the `MIN_VALUE` and `MAX_VALUE` fields. (Hint: Use `Long.MIN_VALUE` and `Long.MAX_VALUE`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        System.out.println(Long.MAX_VALUE+" "+Long.MIN_VALUE);  
  
    }  
  
}
```

9223372036854775807 -9223372036854775808

**d.** Declare a method-local variable `number` of type `long` with some value and convert it to a `String` using the `toString` method. (Hint: Use `Long.toString(long)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        long l=123l;  
        String s1=Long.toString(l);  
  
        System.out.println(s1);  
  
    }  
  
}
```

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**e.** Declare a method-local variable `strNumber` of type `String` with some value and convert it to a `long` value using the `parseLong` method. (Hint: Use `Long.parseLong(String)`).

```
public static void main(String[] args) {  
  
    //  
  
    String s1 = "123";  
  
    long i = Long.parseLong(s1);  
  
    System.out.println(i);  
  
    }  
  
}
```

**f.** Declare a method-local variable `strNumber` of type `String` with the value `"Ab12Cd3"` and attempt to convert it to a `long` value. (Hint: `parseLong` method will throw a `NumberFormatException`).

it throws `java.lang.NumberFormatException`

**g.** Declare a method-local variable `number` of type `long` with some value and convert it to the corresponding wrapper class using `Long.valueOf()`. (Hint: Use `Long.valueOf(long)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        //  
  
        long number =123l;  
  
        Long i = Long.valueOf(number);  
  
        System.out.println(i);  
  
    }  
  
}
```



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```
}
```

**h. Declare a method-local variable `strNumber` of type `String` with some long value and convert it to the corresponding wrapper class using `Long.valueOf()`. (Hint: Use `Long.valueOf(String)`).**

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        String s1="123";  
  
        long l=Long.valueOf(s1);  
  
        System.out.println(l);  
  
    }  
  
}
```

**i. Declare two long variables with values 1123 and 9845, and add them using a method from the `Long` class. (Hint: Use `Long.sum(long, long)`).**

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        long l1=112l;long l2=123l;  
  
        long l=Long.sum(l1,l2);  
  
        System.out.println(l);  
  
    }  
  
}
```

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**j.** Declare two long variables with values 1122 and 5566, and find the minimum and maximum values using the `Long` class. (Hint: Use `Long.min(long, long)` and `Long.max(long, long)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        long l1=1122;long l2=1234;  
  
        long l=Long.max(l1,l2);  
  
        System.out.println(l);  
  
    }  
  
}
```

**k.** Declare a long variable with the value 7. Convert it to binary, octal, and hexadecimal strings using methods from the `Long` class. (Hint: Use `Long.toBinaryString(long)`, `Long.toOctalString(long)`, and `Long.toHexString(long)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        long l1=1122;  
  
        String l=Long.toBinaryString(l1);  
  
        String l2=Long.toOctalString(l1);  
  
        String l3=Long.toHexString(l1);  
  
        System.out.println(l+" "+l2+" "+l3);  
  
    }  
  
}
```

**l.** Experiment with converting a `long` value into other primitive types or vice versa and observe the results.

## 6. Working with `java.lang.Float`

a. Explore the [Java API documentation for `java.lang.Float`](#) and observe its modifiers and super types.

b. Write a program to test how many bytes are used to represent a `float` value using the `BYTES` field. (Hint: Use `Float.BYTES`).

```
public class Day3 {

    public static void main(String[] args) {

        System.out.println(Float.BYTES);

    }

}
```

} //4

c. Write a program to find the minimum and maximum values of `float` using the `MIN_VALUE` and `MAX_VALUE` fields. (Hint: Use `Float.MIN_VALUE` and `Float.MAX_VALUE`).

```
public class Day3 {

    public static void main(String[] args) {

        System.out.println(Float.MAX_VALUE+" "+Float.MIN_VALUE);

    }

}
```

}

3.4028235E38 1.4E-45

d. Declare a method-local variable `number` of type `float` with some value and convert it to a `String` using the `toString` method. (Hint: Use `Float.toString(float)`).

```
public class Day3 {

    public static void main(String[] args) {

        float f=123.3f;
```

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```
String s1=Float.toString(f);

System.out.println(s1);

}

}
```

**e.** Declare a method-local variable `strNumber` of type `String` with some value and convert it to a `float` value using the `parseFloat` method. (Hint: Use `Float.parseFloat(String)`).

```
public class Day3 {

    public static void main(String[] args) {

//

String s1 = "123";

float i = Float.parseFloat(s1);

System.out.println(i);

    }

}
```

**f.** Declare a method-local variable `strNumber` of type `String` with the value `"Ab12Cd3"` and attempt to convert it to a `float` value. (Hint: `parseFloat` method will throw a `NumberFormatException`).

it throws `java.lang.NumberFormatException`

**g.** Declare a method-local variable `number` of type `float` with some value and convert it to the corresponding wrapper class using `Float.valueOf()`. (Hint: Use `Float.valueOf(float)`).

```
public class Day3 {
```

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```
        public static void main(String[] args) {  
  
        //  
  
        float number =123f;  
  
        Float i = Float.valueOf(number);  
  
        System.out.println(i);  
  
        }  
  
}
```

**h.** Declare a method-local variable `strNumber` of type `String` with some float value and convert it to the corresponding wrapper class using `Float.valueOf()`. (Hint: Use `Float.valueOf(String)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        String f="123.3f";  
  
        float s1=Float.valueOf(f);  
  
        System.out.println(s1);  
  
        }  
  
}
```

**i.** Declare two float variables with values `112.3` and `984.5`, and add them using a method from the `Float` class. (Hint: Use `Float.sum(float, float)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        float f1=122.33f;float f2=77.77f;  
  
        float s1=Float.sum(f1,f2);  
  
        System.out.println(s1);  
  
    }  
}
```

```
}
```

```
}
```

**j.** Declare two float variables with values 112.2 and 556.6, and find the minimum and maximum values using the `Float` class. (Hint: Use `Float.min(float, float)` and `Float.max(float, float)`).

```
public class Day3 {

    public static void main(String[] args) {

        float f1=122.33f;float f2=77.77f;

        float s1=Float.max(f1,f2);

        System.out.println(s1);

    }

}
```

**k.** Declare a float variable with the value -25.0f. Find the square root of this value. (Hint: Use `Math.sqrt()` method).

```
public class Day3 {

    public static void main(String[] args) {

        float f1=122.33f;

        float s1=(float)Math.sqrt(f1);//returns double

        System.out.println(s1);

    }

}
```

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**l.** Declare two float variables with the same value, `0.0f`, and divide them. (Hint: Observe the result and any special floating-point behavior).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        float f1=0.0f;float f2=0.0f;  
  
        float s1=f1/f2;;  
  
        System.out.println(s1);  
  
    }  
  
}
```

it gives output as NaN or not a number for undefined divide operation result means it is handled at backend in the class itself

**m.** Experiment with converting a `float` value into other primitive types or vice versa and observe the results.

you can convert float to double or long for others we need narrowing

### 7. Working with `java.lang.Double`

**a.** Explore the [Java API documentation for `java.lang.Double`](#) and observe its modifiers and super types.

**b.** Write a program to test how many bytes are used to represent a `double` value using the `BYTES` field. (Hint: Use `Double.BYTES`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        System.out.println(Double.BYTES);  
  
    }  
  
} //8
```

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**c.** Write a program to find the minimum and maximum values of `double` using the `MIN_VALUE` and `MAX_VALUE` fields. (Hint: Use `Double.MIN_VALUE` and `Double.MAX_VALUE`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        System.out.println(Double.MAX_VALUE+" "+Double.MIN_VALUE);  
  
    }  
  
}
```

1.7976931348623157E308 4.9E-324

**d.** Declare a method-local variable `number` of type `double` with some value and convert it to a `String` using the `toString` method. (Hint: Use `Double.toString(double)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        double d=123.23;  
  
        String s1=Double.toString(d);  
  
        System.out.println(s1);  
  
    }  
  
}
```

**e.** Declare a method-local variable `strNumber` of type `String` with some value and convert it to a `double` value using the `parseDouble` method. (Hint: Use `Double.parseDouble(String)`).

```
public class Day3 {  
  
    public static void main(String[] args) {
```



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```
//  
  
String s1 = "123";  
  
double i = Double.parseDouble(s1);  
  
System.out.println(i);  
  
}
```

```
}
```

**f. Declare a method-local variable `strNumber` of type `String` with the value `"Ab12Cd3"` and attempt to convert it to a double value. (Hint: `parseDouble` method will throw a `NumberFormatException`).**

it throws `java.lang.NumberFormatException`

**g. Declare a method-local variable `number` of type `double` with some value and convert it to the corresponding wrapper class using `Double.valueOf()`. (Hint: Use `Double.valueOf(double)`).**

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        //  
  
        double number =123f;  
  
        Double i = Double.valueOf(number);  
  
        System.out.println(i);  
  
    }  
  
}
```

## ASSIGNMENT NO.2

**h.** Declare a method-local variable `strNumber` of type `String` with some double value and convert it to the corresponding wrapper class using `Double.valueOf()`. (Hint: Use `Double.valueOf(String)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        String d="123.23";  
  
        double s1=Double.valueOf(d);  
  
        System.out.println(s1);  
  
    }  
  
}
```

**i.** Declare two double variables with values 112.3 and 984.5, and add them using a method from the `Double` class. (Hint: Use `Double.sum(double, double)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        double d1=12.32;double d2=56.65;  
  
        double s1=Double.sum(d1,d2);  
  
        System.out.println(s1);  
  
    }  
  
}
```

**j.** Declare two double variables with values 112.2 and 556.6, and find the minimum and maximum values using the `Double` class. (Hint: Use `Double.min(double, double)` and `Double.max(double, double)`).

```
public class Day3 {  
  
    public static void main(String[] args) {  
  
        double d1=12.32;double d2=56.65;
```

## ASSIGNMENT NO.2

```
        double s1=Double.max(d1,d2);

        System.out.println(s1);

    }

}
```

**k.** Declare a double variable with the value `-25.0`. Find the square root of this value. (Hint: Use `Math.sqrt()` method).

```
public class Day3 {

    public static void main(String[] args) {

        double d1=12.32;double d2=56.65;

        double s1=Math.sqrt(d1);

        System.out.println(s1);

    }

}
```

**l.** Declare two double variables with the same value, `0.0`, and divide them. (Hint: Observe the result and any special floating-point behavior).

```
public class Day3 {

    public static void main(String[] args) {

        double d1=0.0;double d2=0.0;

        double s1=d1/d2;

        System.out.println(s1);

    }

}
```

```
}
```

it gives output NaN

**m.** Experiment with converting a `double` value into other primitive types or vice versa and observe the results.

to convert `double` to `int`, `short`, `float` we require type casting but we can convert `int`, `float`, `short`, `byte` to `double` with explicit type casting

## 8. Conversion between Primitive Types and Strings

Initialize a variable of each primitive type with a user-defined value and convert it into `String`:

- First, use the `toString` method of the corresponding wrapper class. (e.g., `Integer.toString()`).
- Then, use the `valueOf` method of the `String` class. (e.g., `String.valueOf()`).
- `public class Day3 {`
- `public static void main(String[] args) {`
- `int i=1;float f=1.1f;double d=1.1;long l=1l;byte b=1;short s=1;`
- `String s1=Integer.toString(i);`
- `String s2=Float.toString(f);`
- `String s3=Double.toString(d);`
- `String s4=Long.toString(l);`
- `String s5=Byte.toString(b);`
- `String s6=Short.toString(s);`
- `System.out.println(s1+" "+s2+" "+s3+" "+s4+" "+s5+" "+s6);`
- `}`
- `}`
-

## 9. Default Values of Primitive Types

Declare variables of each primitive type as fields of a class and check their default values. (Note: Default values depend on whether the variables are instance variables or static variables).

```
public class Day3 {

    int i ; float f;double d;char c;boolean b;

    public static void main(String[] args) {

        Day3 d1 = new Day3();

        System.out.println(d1.i+" "+d1.c+" "+d1.d+" "+d1.f);

    }

}
```

for instance variables default values are assigned when object is created while for static variables default values are assigned along with main method

## 10. Arithmetic Operations with Command Line Input

Write a program that accepts two integers and an arithmetic operator (+, -, \*, /) from the command line. Perform the specified arithmetic operation based on the operator provided. (Hint: Use `switch-case` for operations).

```
package day3;

import java.util.Scanner;

public class Day3 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        String c=sc.nextLine();
        switch(c) {
            case "*":int i = sc.nextInt();int j=sc.nextInt();
                System.out.println(i*j);
                break;
            case "+":int i1 = sc.nextInt();int j1=sc.nextInt();
```

## ASSIGNMENT NO.2

```
        System.out.println(i1+j1);
        break;
case "-":int i3 = sc.nextInt();int j3=sc.nextInt();
        System.out.println(i3-j3);
        break;
case "/":int i2 = sc.nextInt();int j2=sc.nextInt();
        System.out.println(i2/j2);
        break;
    }
    }
}
```

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