Beginners Book: Java Basics

Lesson 5: Data Types In Java

In Java there are eight primitive data types:

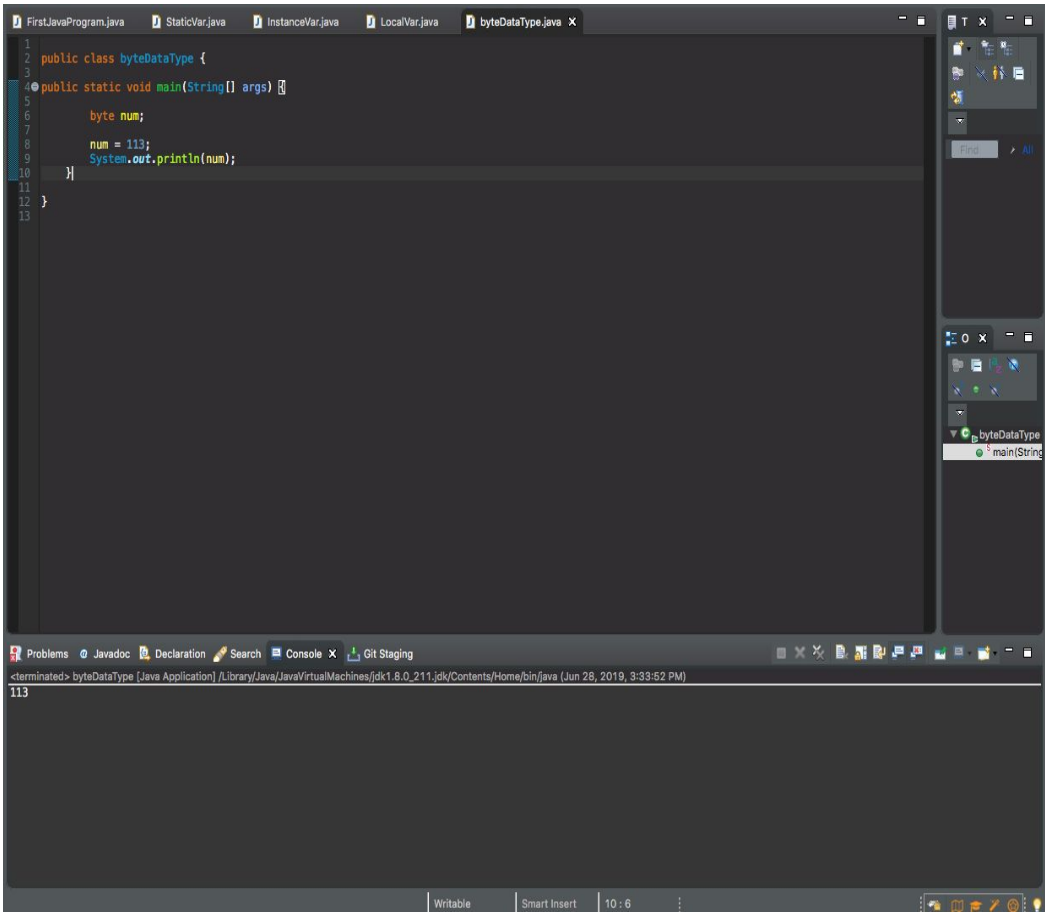
<u>byte:</u>

A byte can hold whole number between -128 and 127. They are mostly used to save memory and when you are certain that the numbers would be in the limit specified by byte data type.

Default Size: 1 byte

Default Value: 0

Example:



```

public class byteDataType {

public static void main(String[] args) {

        byte num;

        num = 113;
        System.out.println(num);
    }

}

```

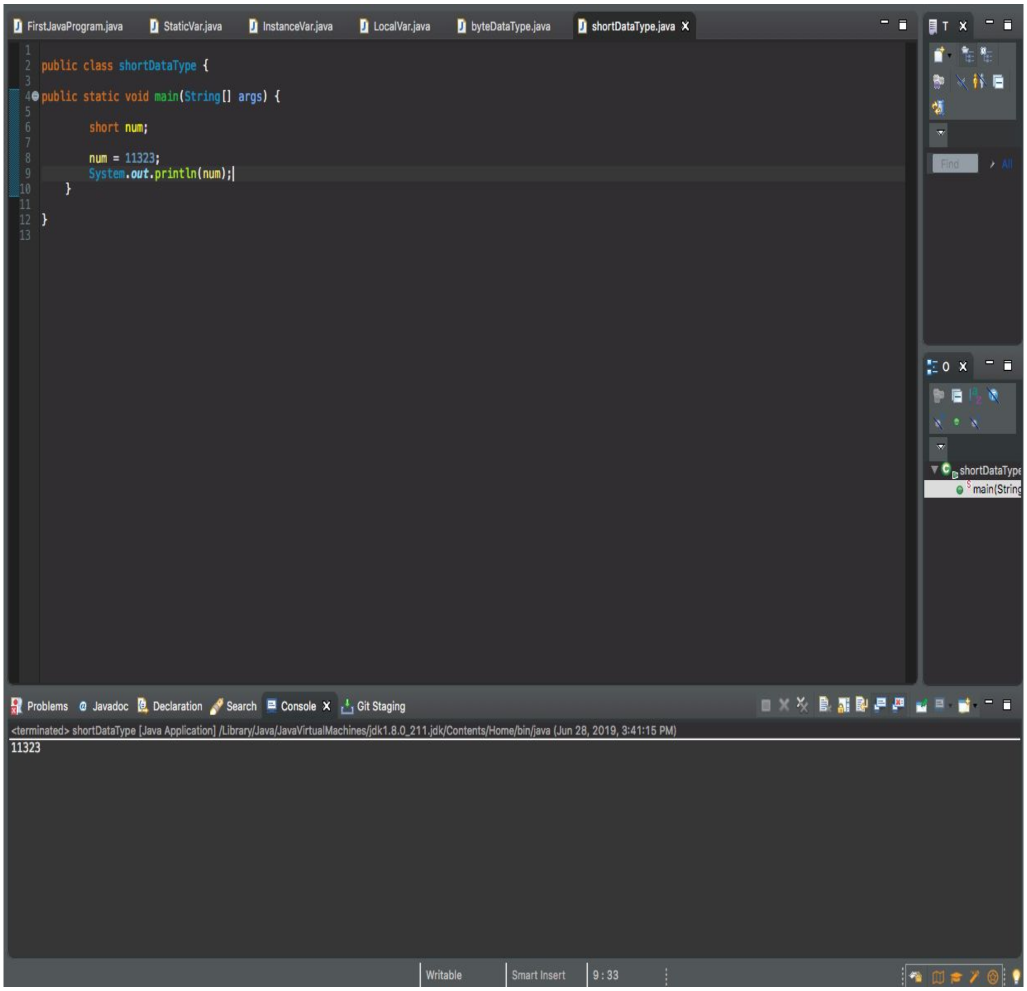
```
<terminated> byteDataType [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_211.jdk/Contents/Home/bin/java (Jun 28, 2019, 3:33:52 PM)
113
```

short:

A short is greater in size than byte and less than integer. Its range is -32,768 to 32767.

Default Size: 2 byte

Example:



```

public class shortDataType {

public static void main(String[] args) {

        short num;

        num = 11323;
        System.out.println(num);
    }

}

```

```
<terminated> shortDataType [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_211.jdk/Contents/Home/bin/java (Jun 28, 2019, 3:41:15 PM)
11323
```

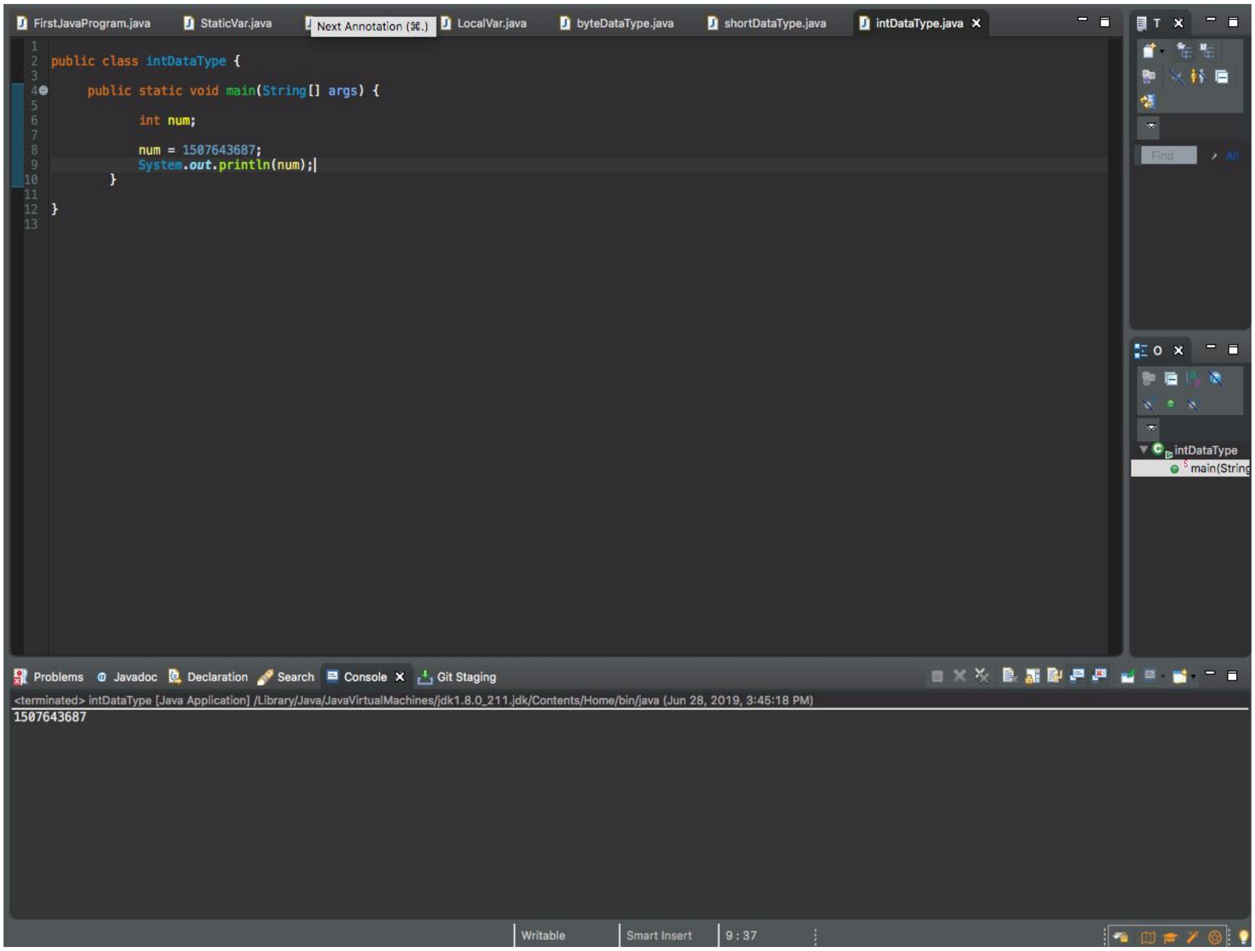
int:

An int is used when short is not large enough to hold the number as it has a wider range: -2,147,483,648 to 2,147,483,647

Default Size: 4 byte

Default Value: 0

Example:



```

public class intDataType {

    public static void main(String[] args) {

        int num;

        num = 1507643687;
        System.out.println(num);
    }

}

```

```
<terminated> intDataType [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_211.jdk/Contents/Home/bin/java (Jun 28, 2019, 3:45:18 PM)
1507643687
```

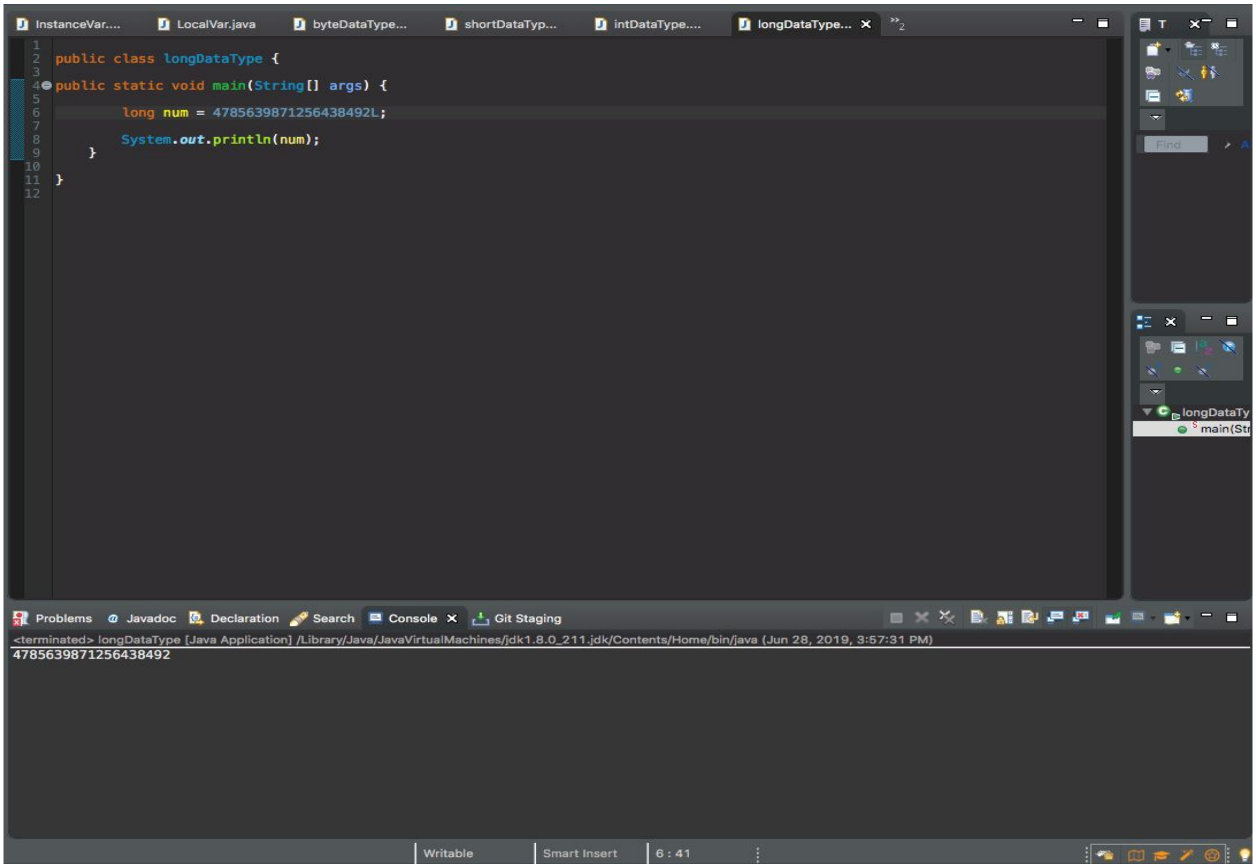
long:

A long is used when int is not large enough to hold the value as it has wider range than int data type, ranging from -9,223,372,036,854,775,808 to 9,223,372,036,854,775,807.

Default Size: 8 byte

Default Value: 0

Example:



```java

public class longDataType {

public static void main(String[] args) {

        long num = 4785639871256438492L;

        System.out.println(num);
    }

}

```

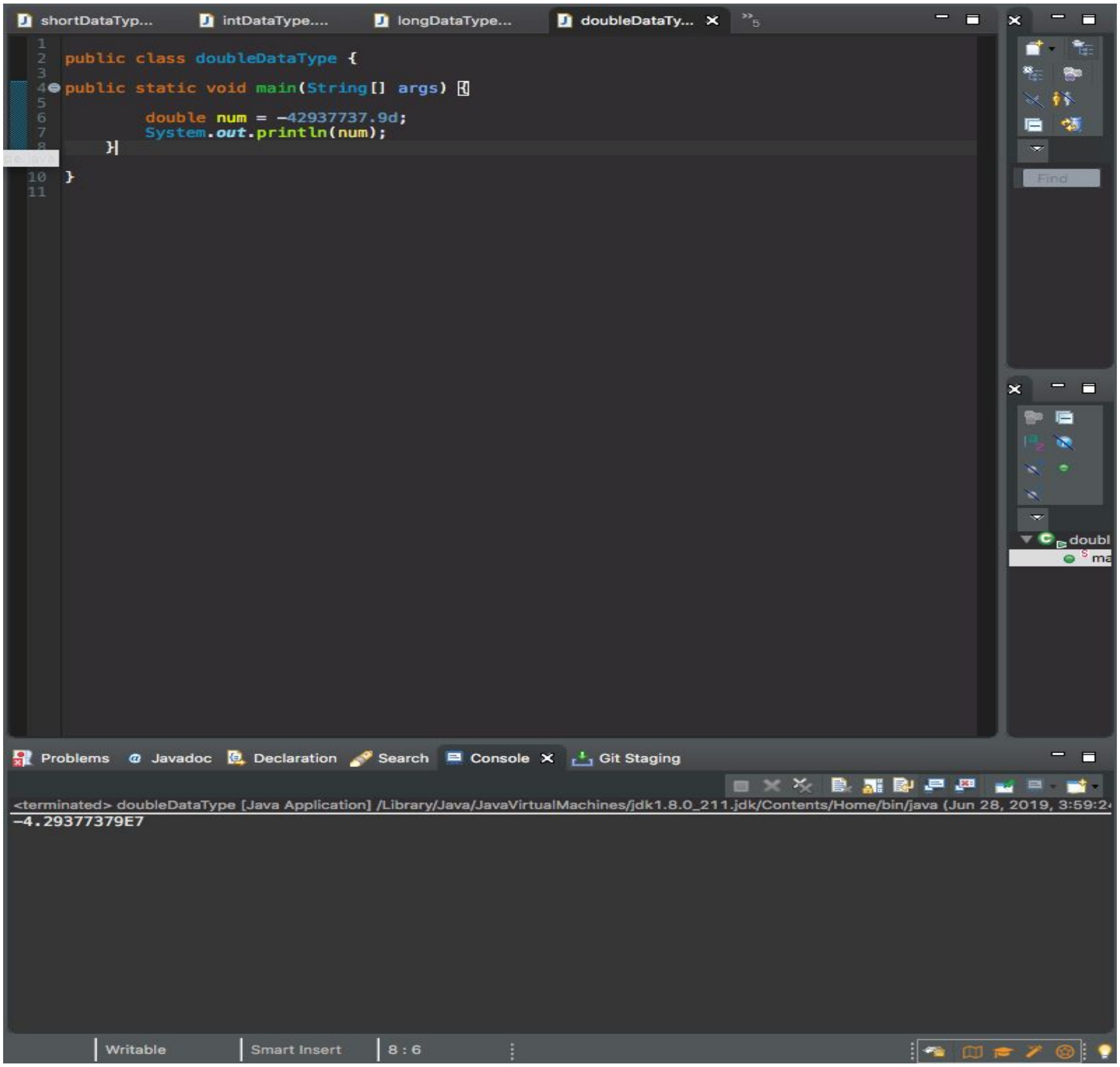
```
<terminated> longDataType [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_211.jdk/Contents/Home/bin/java (Jun 28, 2019, 3:57:31 PM)
4785639871256438492
```

double:

A double is sufficient for holding 15 decimal digits

Default Size: 8 byte

Example:



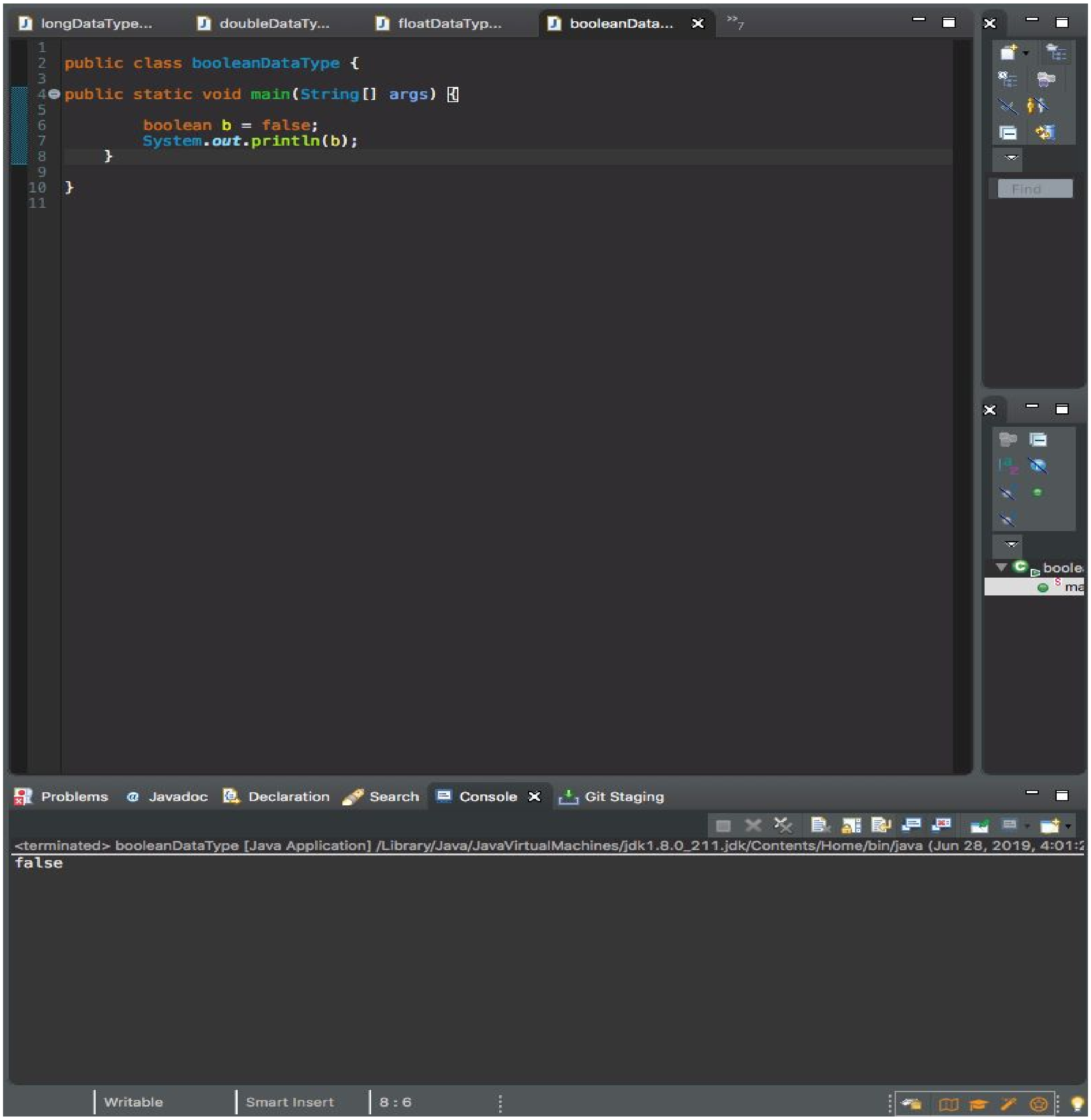
```
public class doubleDataType {

public static void main(String[] args) {

        double num = -42937737.9d;
        System.out.println(num);
    }

}
```

```
<terminated> doubleDataType [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_211.jdk/Contents/Home/bin/java (Jun 28, 2019, 3:59:2
-4.29377379E7
```

boolean:

A boolean holds either true or false.

Example:



```java

public class booleanDataType {

public static void main(String[] args) {

        boolean b = false;
        System.out.println(b);
    }

}

```

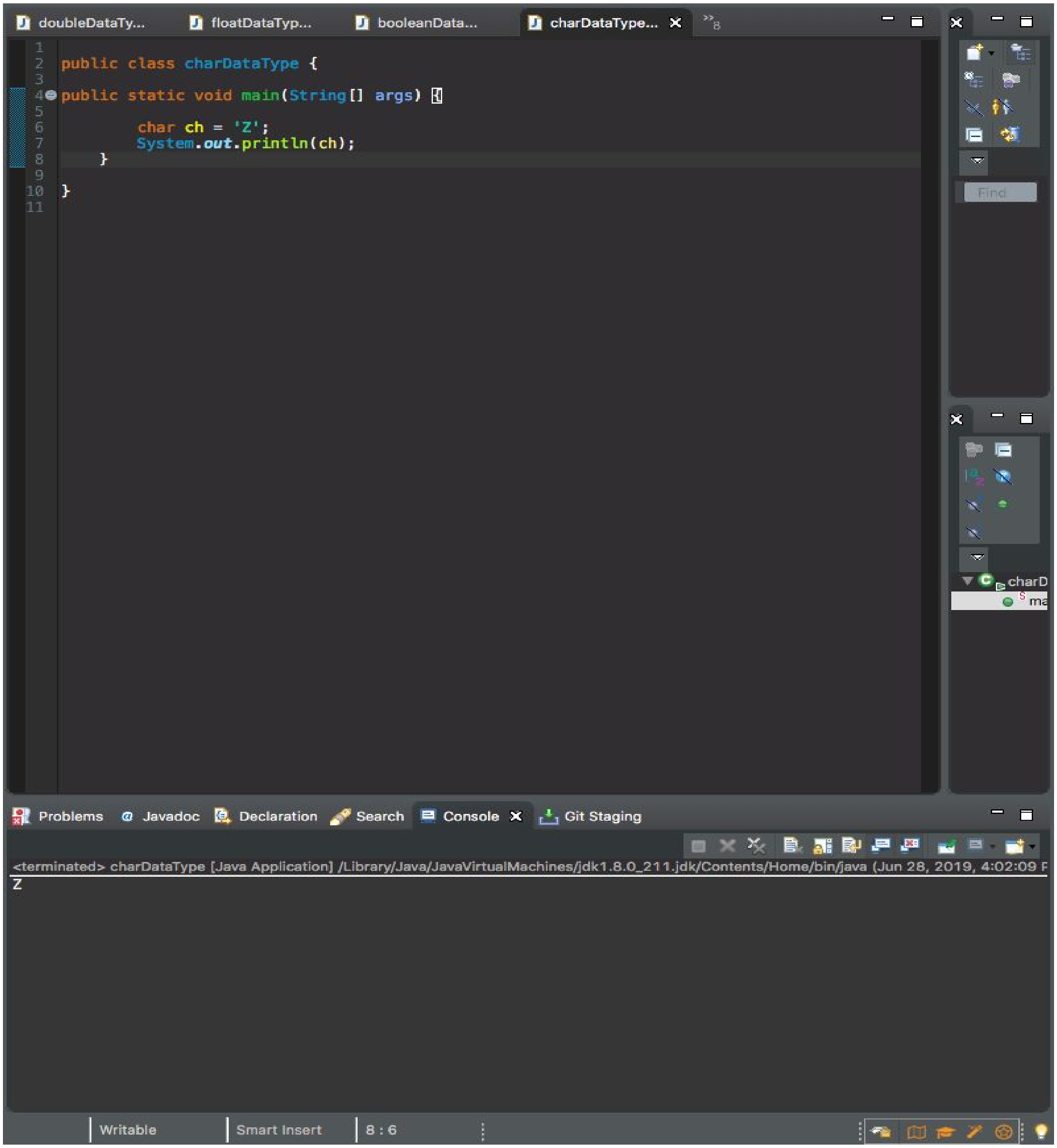
```
<terminated> booleanDataType [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_211.jdk/Contents/Home/bin/java (Jun 28, 2019, 4:01:2
false
```

char:

A char holds characters.

Default Size: 2 byte

Example:



```
public class charDataType {

public static void main(String[] args) {

        char ch = 'Z';
        System.out.println(ch);
    }

}
```

```
<terminated> charDataType [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_211.jdk/Contents/Home/bin/java (Jun 28, 2019, 4:02:09 P
Z
```