

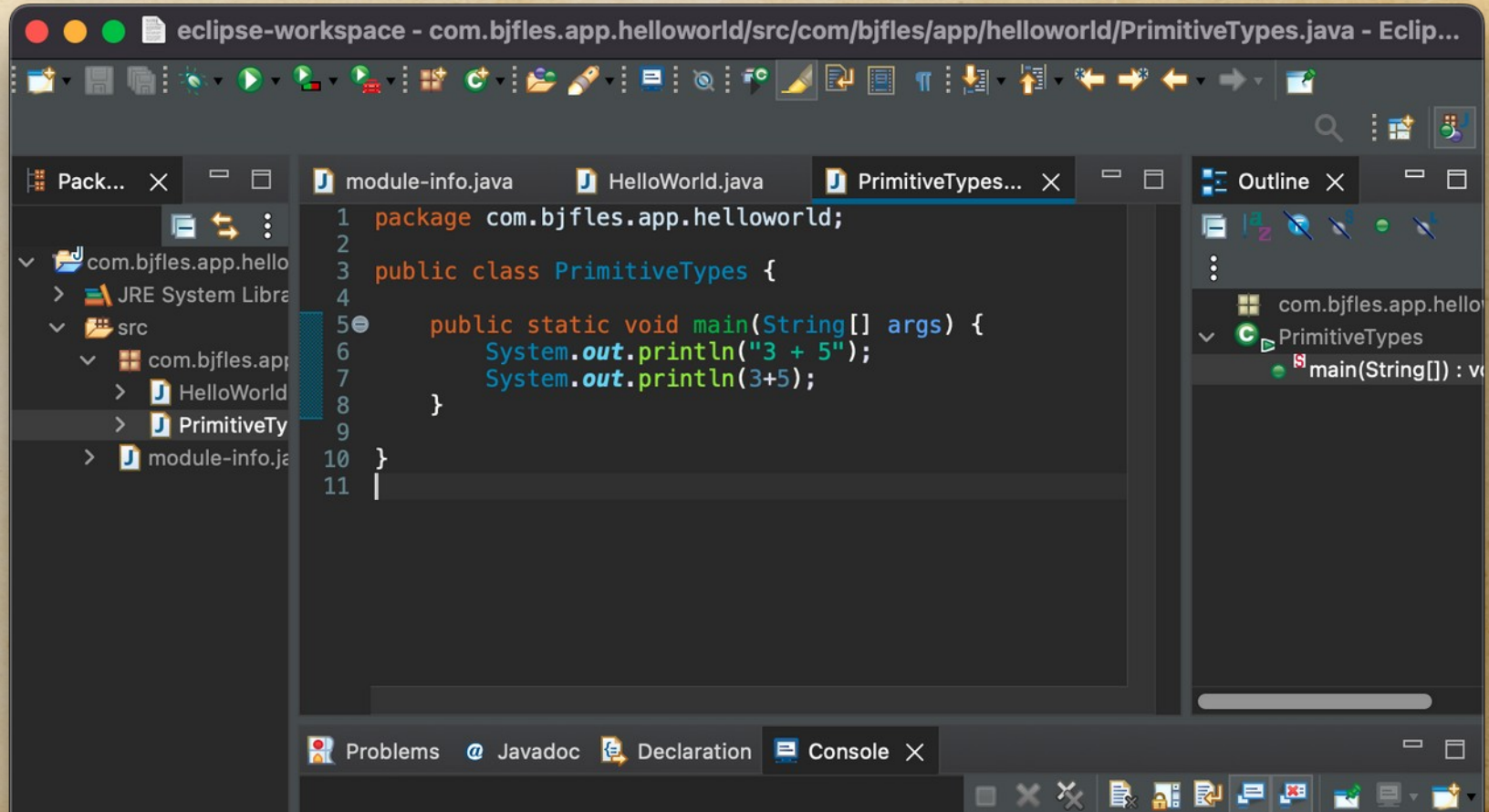
Primitive Types

Integers and Doubles

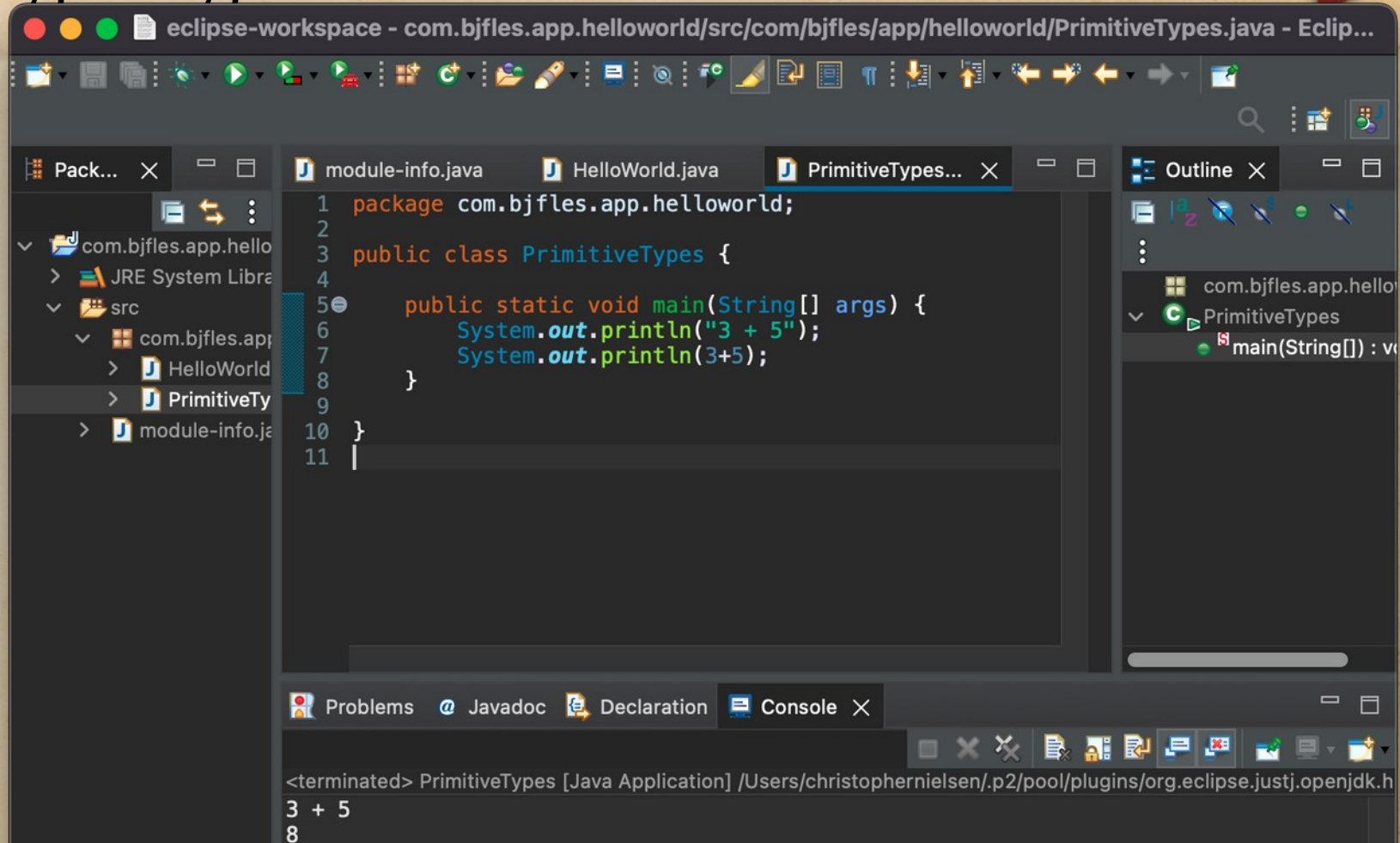
Lecture Contents

- Using *integers* (int)
- Using *floating point numbers* (double)

Using Integers



Using Integers



The screenshot shows the Eclipse IDE with a project named 'com.bjfl.es.app.helloworld'. The main editor displays the file 'PrimitiveTypes.java' with the following code:

```
1 package com.bjfl.es.app.helloworld;
2
3 public class PrimitiveTypes {
4
5     public static void main(String[] args) {
6         System.out.println("3 + 5");
7         System.out.println(3+5);
8     }
9
10 }
11
```

The Outline view on the right shows the class structure:

- com.bjfl.es.app.helloworld
 - PrimitiveTypes
 - main(String[]) : void

The Console view at the bottom shows the output of the program:

```
<terminated> PrimitiveTypes [Java Application] /Users/christophernielsen/.p2/pool/plugins/org.eclipse.justj.openjdk.h
3 + 5
8
```

Using Integers

```
System.out.println("Hello World!");
```

```
System.out.println("Hello " + "World!");
```

```
System.out.println("Hello " + World);
```

```
System.out.println("3 + 5");
```

```
System.out.println("3" + "5");
```

```
System.out.println(3 + 5);
```


Using Integers

```
System.out.println("Hello World!");
```

```
System.out.println("Hello " + "World!");
```

```
System.out.println("Hello " + World);
```

```
System.out.println("3 + 5");
```

```
System.out.println("3" + "5");
```

```
System.out.println(3 + 5);
```

Hello World!

Hello World!

3 + 5

35

8

Using Integers

```
System.out.println("Hello " + 3);
```

```
System.out.println("Hello " + 3 + 5);
```

```
System.out.println("Hello " + (3 + 5) );
```

```
System.out.println(3 + 5 + " Hello");
```

```
System.out.println(3 + (5 + " Hello") );
```


Using Integers

```
System.out.println("Hello " + 3);
```

```
System.out.println("Hello " + 3 + 5);
```

```
System.out.println("Hello " + (3 + 5) );
```

```
System.out.println(3 + 5 + " Hello");
```

```
System.out.println(3 + (5 + " Hello") );
```

Hello 3

Hello 35

Hello 8

8 Hello

35 Hello

Using Floating Point Numbers

```
System.out.println("Hello " + 3.0);
```

```
System.out.println("Hello " + 3.0 + 5.0);
```

```
System.out.println("Hello " + (3.0 + 5.0) );
```

```
System.out.println(3 + 5.0);
```

```
System.out.println(3.0 + 5);
```

Using Floating Point Numbers

```
System.out.println("Hello " + 3.0);
```

```
System.out.println("Hello " + 3.0 + 5.0);
```

```
System.out.println("Hello " + (3.0 + 5.0) );
```

```
System.out.println(3 + 5.0);
```

```
System.out.println(3.0 + 5);
```

Hello 3.0

Hello 3.05.0

Hello 8.0

8.0

8.0

Using Floating Point Numbers

```
System.out.println(3.0 / 5.0);
```

```
System.out.println(3 / 5.0);
```

```
System.out.println(3.0 / 5);
```

```
System.out.println(3 / 5);
```

Using Floating Point Numbers

```
System.out.println(3.0 / 5.0);
```

```
System.out.println(3 / 5.0);
```

```
System.out.println(3.0 / 5);
```

```
System.out.println(3 / 5);
```

0.6

0.6

0.6

0

Primitive Types

Integers and Doubles