

Activity number 5-1

MyArray Class:

The screenshot shows the Eclipse IDE with the `MyArray.java` file open. The code defines a `MyArray` class with a `printArray` method and a `main` method. The `main` method creates arrays of `Integer`, `Double`, and `Float` and prints their contents using the `printArray` method.

```
1 package app;
2
3 public class MyArray {
4
5     public <E extends Number> void printArray(E[] inputArray) {
6         for (E element: inputArray) {
7             System.out.printf("%s ", element);
8         }
9     }
10
11     public static void main(String[] args) {
12
13         Integer[] intArray = {1,2,3,4,5,6};
14         Double[] doubleArray = {1.1,2.2,3.3,4.4};
15         Float[] floatArray = {0.0f, 1.0f, 2.5f, 3.5f};
16
17         MyArray myarray = new MyArray();
18         System.out.println("Array IntegerArray contains:");
19         myarray.printArray(intArray);
20         System.out.println("Array DoubleArray contains:");
21         myarray.printArray(doubleArray);
22         System.out.println("Array FloatArray contains:");
23         myarray.printArray(floatArray);
24     }
25 }
26
27
28
29
30
```

The console output shows the results of the program execution:

```
<terminated> MyArray [Java Application] C:\Users\Administrator\p2\prof.plugin\org.eclipse.jdt.ui\org.eclipse.jdt.ui.hotspot.jre.full.win32.x86_64_17.0.8.v20230811-1047\jre\bin\javaw.exe (Nov 10, 2023, 3:59:33 PM - 3:59:33 PM) [pid: 28068]
Array IntegerArray contains:
1 2 3 4 5 6
Array DoubleArray contains:
1.1 2.2 3.3 4.4
Array FloatArray contains:
0.0 1.0 2.5 3.5
```

MyNumberArray Class:

The screenshot shows the Eclipse IDE with the `MyNumberArray.java` file open. The code defines a `MyNumberArray` class with a `printArray` method and a `main` method. The `main` method creates arrays of `Integer`, `Double`, and `Character` and prints their contents using the `printArray` method.

```
1 package app;
2
3 public class MyNumberArray {
4
5     public <E> void printArray(E[] inputArray) {
6         for (E element: inputArray) {
7             System.out.printf("%s ", element);
8         }
9     }
10
11     public static void main(String[] args) {
12
13         Integer[] intArray = {1,2,3,4,5,6};
14         Double[] doubleArray = {1.1,2.2,3.3,4.4};
15         Character[] charArray = {'H','E','L','L','O'};
16
17         MyNumberArray myarray = new MyNumberArray();
18         System.out.println("Array IntegerArray contains:");
19         myarray.printArray(intArray);
20         System.out.println("Array DoubleArray contains:");
21         myarray.printArray(doubleArray);
22         System.out.println("Array CharacterArray contains:");
23         myarray.printArray(charArray);
24     }
25 }
26
27
28
29
```

The console output shows the results of the program execution:

```
<terminated> MyNumberArray [Java Application] C:\Users\Administrator\p2\prof.plugin\org.eclipse.jdt.ui\org.eclipse.jdt.ui.hotspot.jre.full.win32.x86_64_17.0.8.v20230811-1047\jre\bin\javaw.exe (Nov 10, 2023, 4:00:00 PM - 4:00:00 PM) [pid: 15584]
Array IntegerArray contains:
1 2 3 4 5 6
Array DoubleArray contains:
1.1 2.2 3.3 4.4
Array CharacterArray contains:
H E L L O
```

My Storage class:

The screenshot shows the Eclipse IDE with the following components:

- Package Explorer:** Shows a project named 'app' with a package 'app' containing 'MyArray.java', 'MyNumberArray.java', and 'Storage.java'.
- Editor:** Displays the code for 'Storage.java'. The code is as follows:

```
1 package app;
2
3 public class Storage <T> {
4
5     private T s = null;
6
7     public Storage (T s)
8     {
9         this.s=s;
10    }
11
12    public T getData()
13    {
14        return this.s;
15    }
16
17
18
19
20
21    public static void main(String[] args) {
22        Storage<String> storage1 = new Storage<String>("Mark Reha");
23        System.out.println("This is the data "+ storage1.getData());
24        Storage<Integer>storage2 = new Storage<Integer>(0);
25        System.out.println("This is the data "+ storage2.getData());
26    }
27
28 }
29
```
- Outline:** Shows the class structure: 'app' > 'Storage<T>' > 's: T' > 'Storage(T)' > 'getData() T' > 'main(String[]) void'.
- Console:** Shows the output of the program:

```
<terminated> Storage [Java Application] C:\Users\Administrator\p2\pcoplugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.8.v20230831-1047\jre\bin\java.exe (Nov 10, 2023, 4:00:35 PM - 4:00:35 PM) [pid: 11648]
This is the data Mark Reha
This is the data 0
```

My UML:

