JAVA FUNDAMENTALS COURSE

ARRAYS OF ONE DIMENSION IN JAVA

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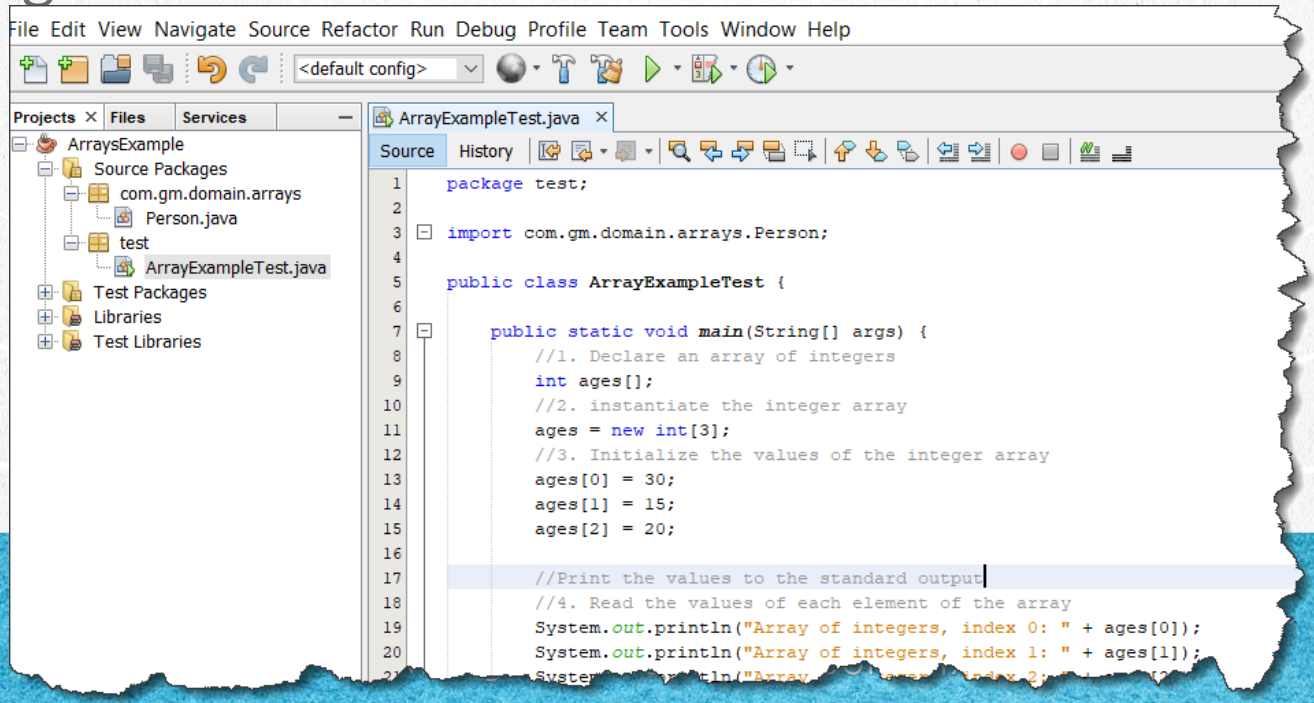
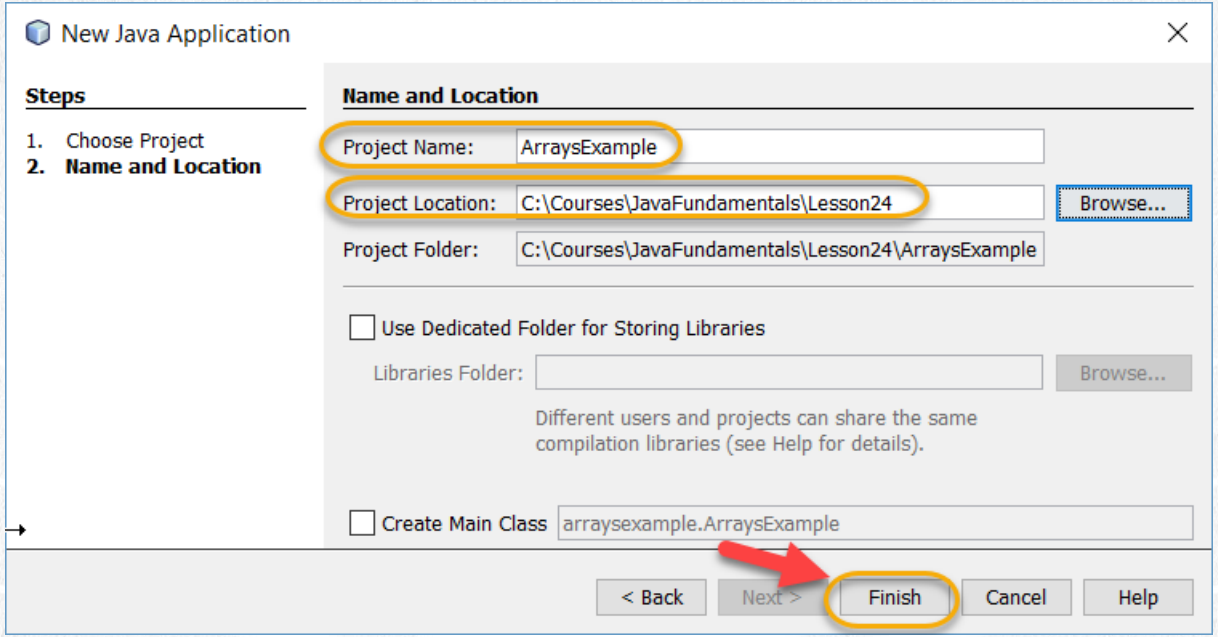
EXERCISE OBJECTIVE

Put into practice the concept of One-dimensional Arrangements in Java. At the end we should observe the following:



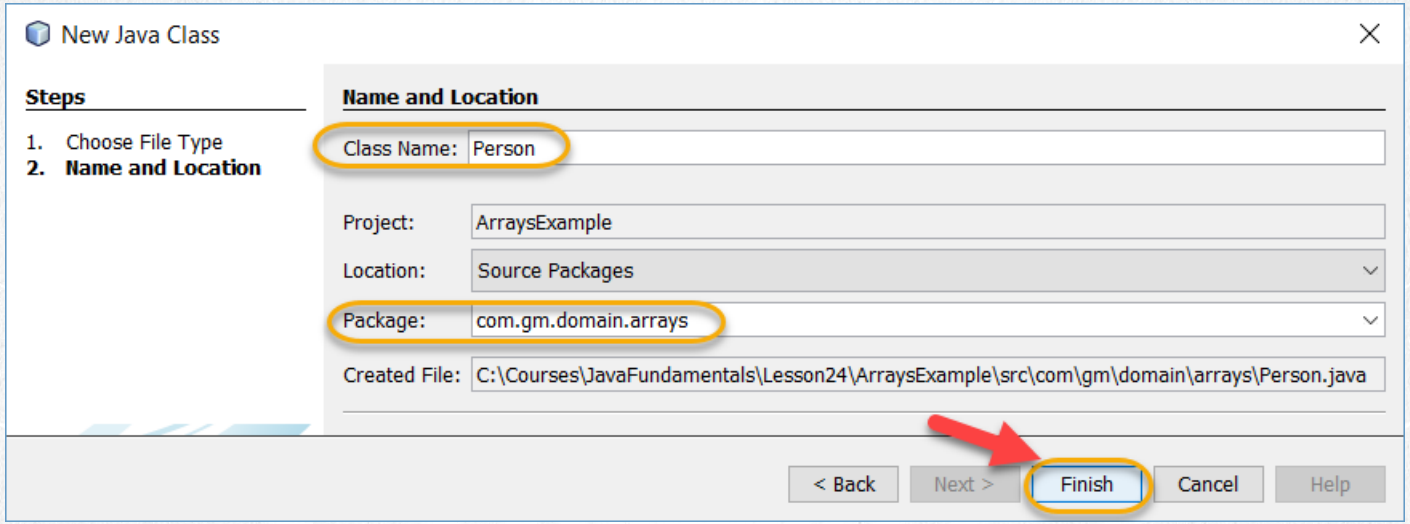
1. CREATE A PROJECT

Create a new project:



2. CREATE A NEW CLASS

Create a new class:



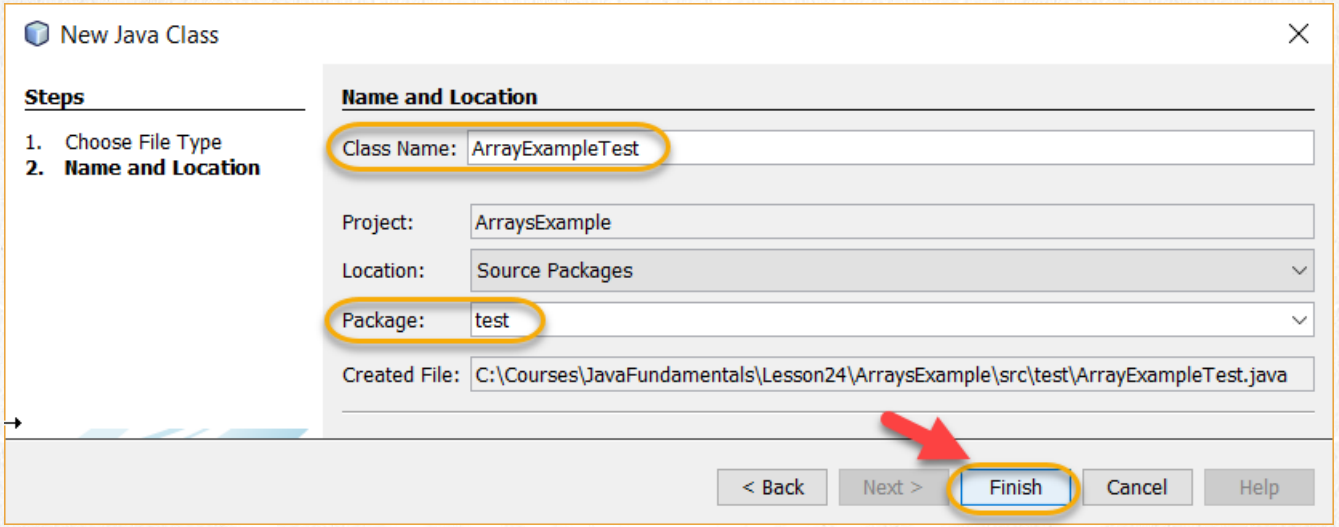
3. MODIFY THE CODE

Person.java:

```
package com.gm.domain.arrays;

public class Person {

    private String name;

    public Person(String name) {
        this.name = name;
    }

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    @Override
    public String toString() {
        return "Person{" + "name=" + getName() + '}';
    }
}
```

4. CREATE A NEW CLASS

Create a new class:



5. MODIFY THE CODE

ArrayExampleTest.java:

```
package test;

import com.gm.domain.arrays.Person;

public class ArrayExampleTest {

    public static void main(String[] args) {
        //1. Declare an array of integers
        int ages[];
        //2. instantiate the integer array
        ages = new int[3];
        //3. Initialize the values of the integer array
        ages[0] = 30;
        ages[1] = 15;
        ages[2] = 20;

        //Print the values to the standard output
        //4. Read the values of each element of the array
        System.out.println("Array of integers, index 0: " + ages[0]);
        System.out.println("Array of integers, index 1: " + ages[1]);
        System.out.println("Array of integers, index 2: " + ages[2]);
```

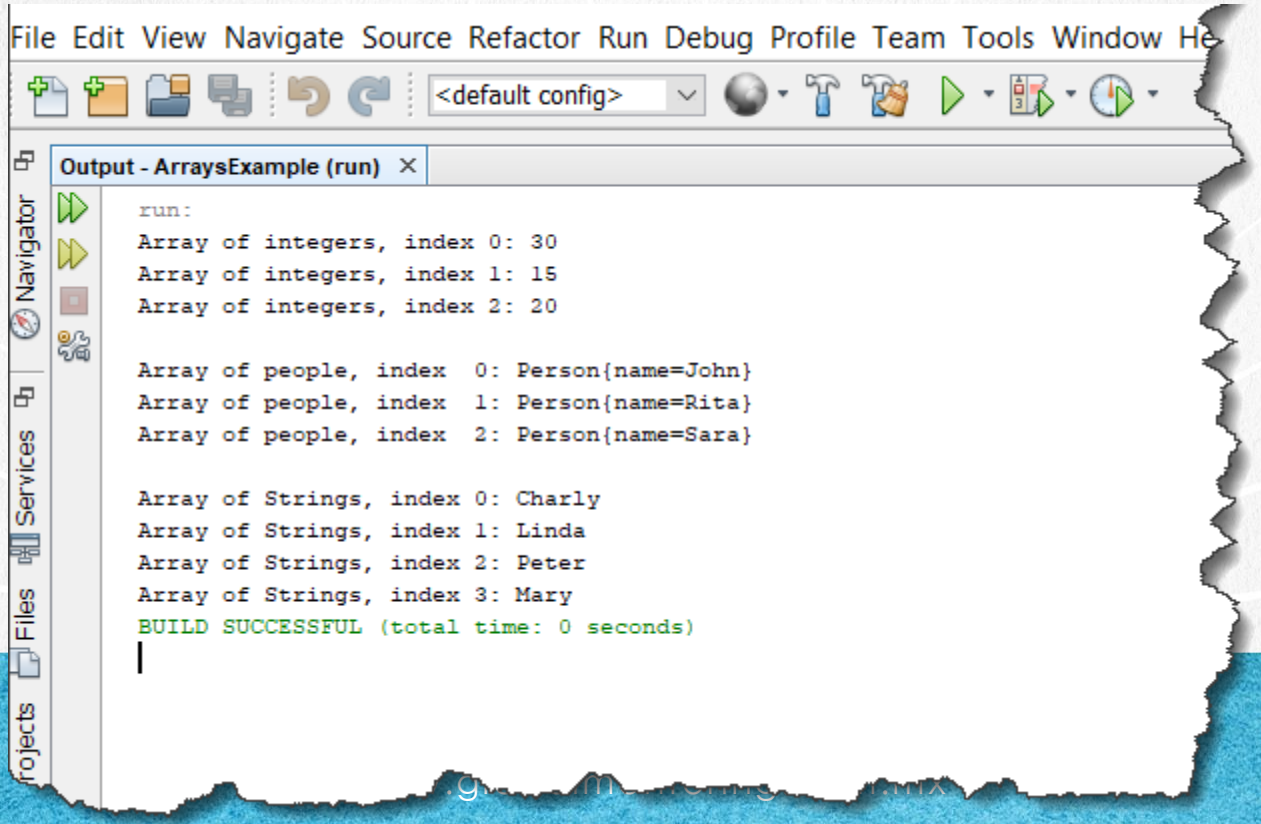
5. MODIFY THE CODE

ArrayExampleTest.java:

```
        //1. Declare an array of Person type
        Person people[];
        //2. Instantiate the people array
        people = new Person[4];
        //3. Initialize the values of the people array
        people[0] = new Person("John");
        people[1] = new Person("Rita");
        people[2] = new Person("Sara");

        //Print the values to the standard output
        //4. Read the values of each element of the array
        System.out.println("");
        System.out.println("Array of people, index  0: " + people[0]);
        System.out.println("Array of people, index  1: " + people[1]);
        System.out.println("Array of people, index  2: " + people[2]);

        //1. String Array, simplified notation
        String names[] = {"Charly", "Linda", "Peter", "Mary"};
        //Print the values to the standard output
        //2. Iterate the String array with a for loop
        System.out.println("");
        for (int i = 0; i < names.length; i++) {
            System.out.println("Array of Strings, index " + i + ": " + names[i]);
        }
    }
}
```

6. EXECUTE THE PROJECT

The result is as follows:



EXERCISE CONCLUSION

- With this exercise we have put into practice the concept of one-dimensional arrays in Java.
- We have seen how to declare, instantiate, initialize, assign and read data from an array.
- In addition we saw how to iterate through a loop for the elements of an array. In the next lesson we will see how we can work with two-dimensional arrays.

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