Exercise 1 – Using Primitive Arrays

“Task 1 – Creating the TestArrays Class

```java
public class TestArrays {
    public static void main(String[] args) {
        int[] array1 = { 2, 3, 5, 7, 11, 13, 17, 19 };
        int[] array2;

        System.out.print("array1 is ");
        printArray(array1);

        array2 = array1;

        array2[0] = 0;
        array2[2] = 2;
        array2[4] = 4;
        array2[6] = 6;

        System.out.print("array1 is ");
        printArray(array1);
    }

    public static void printArray(int[] array) {
        System.out.print('<');
        for (int i = 0; i < array.length; i++) {
            System.out.print(array[i]);
            if ((i + 1) < array.length) {
                System.out.print(", ");
            }
        }
        System.out.print('>');
    }
}
```

“Task 2 – Compiling the TestArrays Class

```
PS C:\Users\Ismael\Documents\Uasd2023-2\TeoProgramacion2\Lab5\Exersice1> javac -cp . ArrayProject/test/TestArrays.java
PS C:\Users\Ismael\Documents\Uasd2023-2\TeoProgramacion2\Lab5\Exersice1>
```

“Task 3 – Running the TestArrays Program

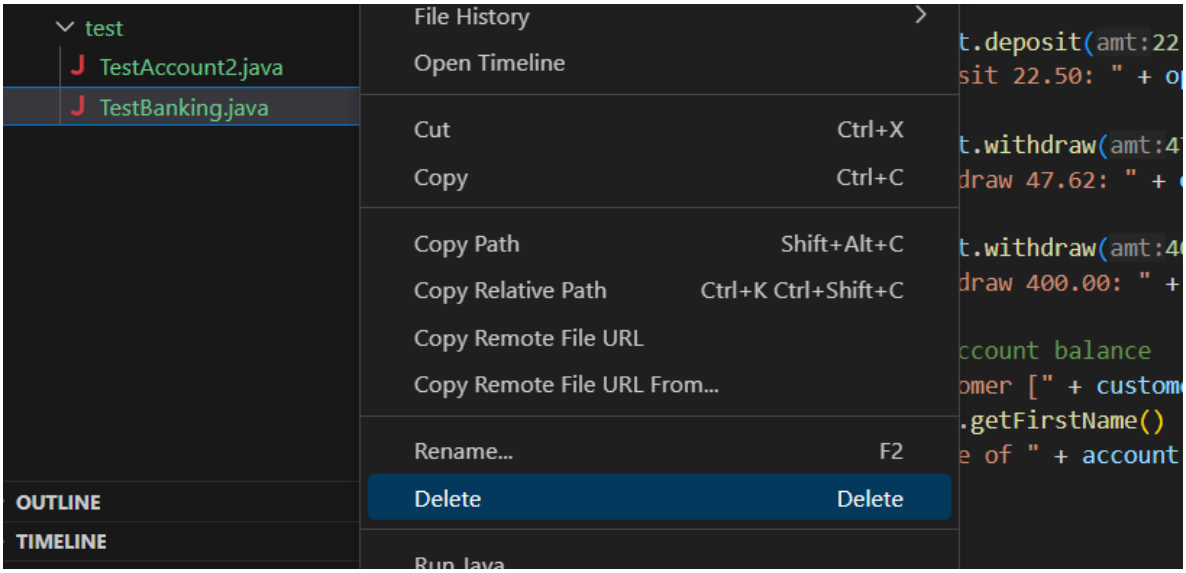
```
PS C:\Users\Ismael\Documents\Uasd2023-2\TeoProgramacion2\Lab5\Exersice1> javac -cp . ArrayProject/test/TestArrays.java
PS C:\Users\Ismael\Documents\Uasd2023-2\TeoProgramacion2\Lab5\Exersice1> java -cp . ArrayProject/test/TestArrays.java
array1 is: <2, 3, 5, 7, 11, 13, 17, 19>
array1 is: <0, 3, 2, 7, 4, 13, 6, 19>
PS C:\Users\Ismael\Documents\Uasd2023-2\TeoProgramacion2\Lab5\Exersice1>
```

Exercise 2 – Using Arrays to Represent One-to-Many Associations

Task 1 – Creating the Bank Class

```java
package com.mybank.domain;

public class Bank {

    private Customer[] customers;
    private int numberOfCustomers;

    public Bank() {
        customers = new Customer[10];
        numberOfCustomers = 0;
    }

    public void addCustomer(String firstName, String lastName) {
        int i = numberOfCustomers++;
        customers[i] = new Customer(firstName, lastName);
    }

    public int getNumOfCustomers() {
        return numberOfCustomers;
    }

    public Customer getCustomer(int customerIndex) {
        return customers[customerIndex];
    }

}
```

Task 2 – Deleting the Current TestBanking Class



Task 3 – Copying the TestBanking Class

```
package com.mybank.test;

import com.mybank.domain.*;

/*
 * This class creates the program to test the banking classes.
 * It creates a new Bank, sets the Customer (with an initial balance),
 * and performs a series of transactions with the Account object.
 */

public class TestBanking {

  public static void main(String[] args) {
    Bank bank = new Bank();

    bank.addCustomer("Jane", "Simms");
    bank.addCustomer("Owen", "Bryant");
    bank.addCustomer("Tim", "Soley");
    bank.addCustomer("Maria", "Soley");

    for ( int i = 0; i < bank.getNumOfCustomers(); i++ ) {
      Customer customer = bank.getCustomer(i);

      System.out.println("Customer [" + (i+1) + "] is "
       + customer.getLastName()
       + ", " + customer.getFirstName());
    }
```

```
    }
}
```

Task 4 – Compiling the TestBanking Class

```
PS C:\Users\Ismael\Documents\Uasd2023-2\TeoProgramacion2\Lab5\Exersice2> javac -cp . com/mybank/test/TestBanking.java
PS C:\Users\Ismael\Documents\Uasd2023-2\TeoProgramacion2\Lab5\Exersice2>
```

Task 5 – Running the TestBanking Program

```
PS C:\Users\Ismael\Documents\Uasd2023-2\TeoProgramacion2\Lab5\Exersice2> javac -cp . com/mybank/test/TestBanking.java
PS C:\Users\Ismael\Documents\Uasd2023-2\TeoProgramacion2\Lab5\Exersice2> java -cp . com/mybank/test/TestBanking.java
Customer [1] is Simms, Jane
Customer [2] is Bryant, Owen
Customer [3] is Soley, Tim
Customer [4] is Soley, Maria
PS C:\Users\Ismael\Documents\Uasd2023-2\TeoProgramacion2\Lab5\Exersice2>
```