
CSCI-101 Pre-lab Assignment

Week of Oct 17

Problem Description

In the **hw** directory of your repository, create a directory named **Arrays**. Change your working directory to **Arrays**.

Create a file named **IntArrays.java** that contains a class that includes the following.

1. A **static** method named **print** that takes an array of integers as an argument and prints the elements in the array on a single line with spaces between them.
2. A **static** method named **create** that has two integer parameters. The method creates an array of length equal to the value in the first parameter, initializes all of the elements in the array equal to the value in the second parameter, and returns the newly created array.
3. A **static** method named **clone** that takes an array of integers as an argument and returns a new array that contains the same elements in the same order.
4. A **static** method named **contains** that has an array of integers as its first parameter and an integer as its second parameter. The method returns true if the value of the second parameter exists in the first parameter, otherwise the method returns false.
5. A **static** method named **get** that has an array of integers as the first parameter and an integer as the second parameter. If the value in the second parameter is a valid index of the array specified in the first parameter, the method returns the value stored at the index specified in the second parameter of the array specified in the first parameter. Otherwise the method returns 0.
6. A **static** method named **indexOf** that has an array of integers as the first parameter and an integer as the second parameter. If the value in the second parameter exists in the first parameter, the method returns the index of the first occurrence of the value. Otherwise, the method returns -1.
7. A **static** method named **set** that has an array of integers as the first parameter, an integer as the second parameter, and an integer as the third parameter. If the value in the second parameter is a valid index of the array specified in the first parameter, the method sets the element at the index specified in the second parameter of the array specified in the first parameter equal to the value specified in the third parameter. The method returns true if the operation was successful, otherwise, the method returns false.
8. A **static** method named **containsAll** that takes an array of integers and a variable number of integers, in that order, as arguments. The method returns true if the array in the first parameter contains all of the integers passed into the method. Otherwise, the method returns false.
9. A **static** method named **equals** that takes two arrays of integers as arguments. The method returns true if the arrays have the same number of elements and the arrays have the same elements in the same order. Otherwise, the method returns false.

In the **hw/Arrays** directory of your repository create a file named **Test.java** that tests all of the methods in **IntArrays.java** to ensure they are call correct. Test each method before moving onto the next method.