

Lab 8: DArray Append

You may work on this lab with another student.

Folder name: **A250_L8_YourLastName_YourFirstName** → If you worked with another student, turn in **ONLY ONE COPY** of the project, named **A250_L8_Yourlastname_Yourfirstname_Otherstudentlastname_Otherstudentfirstname**

Using the project **lab_08_darray_append**, implement the following **member functions**:

- **appendArray**
 - **Parameters:** an object of the DArray class
 - Does not return a value.
 - Append all the elements of the dynamic array parameter to the calling object.
 - Consider the case when there is not enough space in the calling object to add all elements and, without adding any element, output the error message, "**Not enough space to append elements.**"
 - **Be efficient:** Do not execute the body of the function if the array parameter has no elements.
 - The **main** function already has test cases for this function.
- Function **emptyArray**
 - Resets the array to zero elements.
- **Copy constructor**
- **Overloaded assignment operator**

Create your own testing functions for **emptyArray**, **copy constructor**, and **overloaded assignment operator**. Make sure you review the following (assume **d1** is of type **DArray** and it contains elements):

```
DArray d2 = d1;           // Which function is called? Why?
```

```
DArray d2; d2 = d1;       // Which function is called? Why?
```

```
DArray d2(d1);            // Which function is called? Why?
```

*** **DO NOT MODIFY ANY OF THE CODE GIVEN.** ***

EXPECTED Output (on next page)

CLASS DARRAY

Append arrays with different number of elements...

arr1: 10 11 12 13 14

arr2: 20 21 22 23

arr1 is now: 10 11 12 13 14 20 21 22 23

Append arrays with second array empty...

arr3: 10 11 12 13 14

arr4: Array is empty.

arr3 is now: 10 11 12 13 14

Append arrays with first array empty...

arr5: Array is empty.

arr6: 10 11 12 13 14 15

arr5 is now: 10 11 12 13 14 15

Try and append arrays with not enough space...

arr7: 10 11 12 13 14 15 16

arr8: 20 21 22 23

Not enough space to append elements.

arr7 is now: 10 11 12 13 14 15 16

Press any key to continue . . .