Object-Oriented Programming Using C++
605.604

JOHNS HOPKINS UNIVERSITY
Whiting School of Engineering

Week 4 Assignment
Due Date 06/28/21

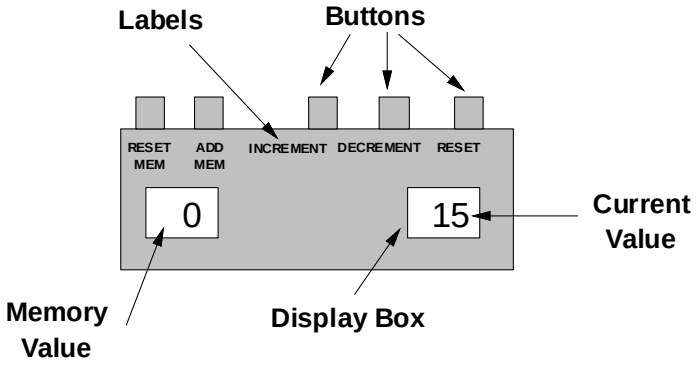
1. 50 points

Consider the class `MyArray`, that defines a simple array class, as indicated below. Implement a copy constructor for the class so that expressions of the form `MyArray newobj = existingObj` are executed correctly. Note that `existingObj` is an existing `MyArray` instance.

```
class MyArray
{
private: int *data;
         int size;

public: MyArray(int sz) { data = new int[sz]; }

         // … any other methods you want/need …

};
```

2. 50 points

In an earlier class lecture, we demonstrated implementing an object-oriented solution for a simple counter. Assume we have a need to implement a slightly different counter, one that also has a memory capability, as indicated below:



Use the containment technique that was discussed in class (to build composite classes) to implement a memory counter.

Submit source code for both problems, screen captures of program execution, and a UML class diagram for the second problem.

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Submit your work in a zip file using your first initial, last name, and problem set number as follows: *initial_lastname_assignment_4.zip*. For example, if your first name is Jane and your last name is Smith, the name of your submit file would be *j_smith_assignment_4.zip*.