

Background

This in-class lab assignment demonstrates the notion and use of C++ Arrays. Your boss comes to you and says, “Girl, you need to start using more arrays.” You reply, “No problem, I love using Arrays?”

Objective for this Lab

You are going to create a C++ program that uses an integer Array. The program will declare a global integer array and have three functions to manipulate the array. Your main body will look like this:

```
//
// start of main logic
//
int main()
{
    loadArray();
    displayArray();
    doubleArray();
    displayArray();
    pause(3);
} // end of main
```

Required Functions

Your C++ program needs the following four functions.

Load Array Function: This function generates 100 random numbers and put them into your array.

Display Array Function: This function simply displays the contents of the array.

Double Array Function: This function doubles the values of all the elements of the array.

Pause Function: This function simply calls the systems command for “pause”. It optionally has an integer input argument that controls how many end-lines to display before the “press any key ...” string.

Prototypes

```
void loadArray();
void displayArray();
void doubleArray();
void pause (int);
```

Development Environment

In the classroom we use Microsoft .NET C++ C++ compiler.

Deliverables

Turn in the source code from the programs plus the generated output.

Special Considerations

1. Use a #define or a C++ constant to set the size of the array and to control all the loops.
2. Reuse the displayArray function by calling it twice.
3. The main has only function calls. All work is performed by functions