

Assignment 7

Name: _____

Choose one (1) of the three (3) programs. Make sure to write the flowchart.

Random Numbers

Define the functions

Function Name:	PrintArray()
Parameter(s):	<i>data</i> : int[] <i>size</i> : int
Return:	void

Function Name:	RandomNumbers()
Parameter(s):	<i>data</i> : int[] <i>size</i> : int <i>min</i> : int <i>max</i> : int
Return:	bool

where **PrintArray()** prints the elements of *data* in enclosed in square braces separated by commas, and **RandomNumber()** populates *data* with random numbers between *min* and *max* inclusives.

In the main function,

1. create an array consisting of at least 10 elements.
2. prompt the user to input two distinct numbers.
3. call **RandomNumbers()** with the input, the array, and its size as the arguments.
4. call **PrintArray()** with the array and its size as the arguments.

Shifting

Define the functions from **Random Numbers** and the function

Function Name:	Shift()
Parameter(s):	<i>data</i> : int[] <i>size</i> : int <i>start</i> : int <i>end</i> : int
Return:	bool

where **Shift()** moves the element of *data* with index *start* to index *end* while preserving the neighbors of the other elements and it returns true if both *start* and *end* are less than *size* and greater than or equal to 0; otherwise, it returns false.

In the main function,

1. perform the task of the main function of **Random Numbers**.
2. prompt the user to enter two numbers less than the size of the array.
3. call **Shift()** with the inputs, the array, and its size as the arguments.
4. call **PrintArray()** with the array and its size as the arguments.

Sort

Define the functions from **Random Numbers** and the function

Function Name:	Sort()
Parameter(s):	<i>data</i> : int[] <i>size</i> : int
Return:	void

where **Sort()** sorts *data* in descending order.

In the main function,

1. perform the task of the main function of **Random Numbers**.
2. call **Sort()** with the inputs, the array, and its size as the arguments.
3. call **PrintArray()** with the array and its size as the arguments.