CS 1713 - 002 Intro to Programming II Recitation – Exercise

Due date: check BB Learn

One-D Arrays and functions: Complete the following program. You will mainly implement `SELECTION_SORT (...)`, `MERGE(...)`, and `PRINT_ARRAY(...)` functions!

```
main()
{
     /* 1.  Declare three integer arrays as follows */
     int  a[50], b[70], c[120];

     /* 2. Call set_array_rand(int x[], int n) to generate the
     values in array a and b randomly. */

     set_array_rand(a, 50);
     set_array_rand(b, 70);

     /* 3. Implement and call SELECTION_SORT(int x[], int n)
     function to sort the elements in a and b arrays.  */

     SELECTION_SORT(a, 50);
     SELECTION_SORT(b, 70);

     /* 4. Implement MERGE function and call it as follows to
     merge the values in arrays a and b into array c such that
     the values in c will be sorted after merging */

     MERGE(a, 50, b, 70, c, 120);

     /* 5. Implement PRINT_ARRAY() function and call it to
     print the values in all three arrays */
     PRINT_ARRAY("Array a", a, 50);
     PRINT_ARRAY("Array b", b, 70);
     PRINT_ARRAY("Array c", c, 120);
}

void set_array_rand(int x[], int n)
{
   for(int i=0; i< n; i++)  x[i] = rand_int(30, 100);
}

int rand_int(int a,int b)
{
   return rand()%(b-a+1) + a;
}
```

```
/* YOUR CODE */

void SELECTION_SORT(int x[], int n)
{
  int k,j,m;
  double temp;


}

void MERGE(int a[], int na, int b[], int nb, int c[], int nc)
{
/*  merge the values in a and b into c while keeping the values
    sorted. For example, suppose we have the following two
    Arrays a = { 3, 7, 9, 12} and b = {4, 5, 10}
    When we merge these two arrays, we will get
    c = {3, 4, 5, 7, 9, 10, 12}
*/



}

PRINT_ARRAY(char *name, int x[], int nx)
{

   /* YOUR CODE */

}
```

You must submit your work using Blackboard Learn and respect the following rules:

1) All assignments must be submitted as either a zip or tar archive file unless it is a single pdf file.
2) Assignments must include all source code.
3) Assignments must include an output.txt file which demonstrates the final test output run by the student.
4) If your assignment does not run/compile, the output.txt file should include an explanation of what was accomplished, what the error message was that prevented the student from finishing the assignment and what the student BELIEVES to be the underlying cause of the error.
