Assignment-2: Operating on Files

1. Write a C program which will do the following tasks.

   a) Randomly generate 10 numbers from the range 1-50 and store them into a file named "source.txt".

   b) Store the numbers into an array from the file "source.txt" and sort it using any sorting algorithm.

   c) Copy the sorted array into a file named "target.txt".

2. Write a C program to read a text file "input.txt" containing a sparse matrix in a compact form shown below and write the sparse matrix into a file "output.txt" in expanded form.

   e.g.

   ```
   5 5 4                    0 0 0 2 0
   0 3 2                    0 5 0 0 0
   1 1 5      ───►          0 0 0 0 0
   3 2 4                    0 0 4 0 0
   4 4 7                    0 0 0 0 7
   input.txt                output.txt
   ```