Data Structure

Lab Exercise 8

Task 1:
Write a C++ program that generates 100 random integer numbers (in the range of 0-1000) and write those numbers in a file called *"file1.txt"*. File should contain single number per line.

Task 2:
Write a C++ Program that opens and reads 100 integer numbers from a file called "*file1.txt*" and stores those numbers in an int array.

Add a function called "int **square(int)** to your program which calculates the square of a number provided to it as an argument. Your program should then write the square of 100 numbers into another file called *"file2.txt"*.

Task 3:
Create a function called "**sort(int array[], int size)**" that takes an int Array as an argument and sort it using any **sorting** algorithm. (e.g. selection sort, bubble sort, insertion sort). Write the contents of the sorted array into another file called *"file3.txt"*.