

# Data Structure

## Lab Exercise 8

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### 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"***.