Lab Task 2

1. Write down a program that implements three sorting algorithms (bubble sort, selection sort, and insertion sort). Using a switch statement to choose the desired algorithm.
2. Consider a random array of n different sizes. Now write down a program that measures and records the execution time for each sorting algorithm (bubble sort, selection sort, and insertion sort) to sort the generated arrays. Repeat the experiment multiple times for each input size and calculate the average execution time.
3. Implement optimized versions of the sorting algorithms (bubble sort, selection sort, and insertion sort) to improve the performance.