Assignment 1

1. The Bubble Sort algorithm has a time complexity of O(n^2) in its worst and average cases, which makes it inefficient for large datasets. How we can optimise the Bubble Sort algorithm
   And implement the code of this optimised bubble sort algorithm

2. create a generic Range<T> class that represents a range of values from a minimum value to a maximum value. The range should support basic operations such as checking if a value is within the range and determining the length of the range.
   Requirements:
   1. Create a generic class named Range<T> where T represents the type of values.
   2. Implement a constructor that takes the minimum and maximum values to define the range.
   3. Implement a method IsInRange(T value) that returns true if the given value is within the range, otherwise false.
   4. Implement a method Length() that returns the length of the range (the difference between the maximum and minimum values).
   5. Note: You can assume that the type T used in the Range<T> class implements the IComparable<T> interface to allow for comparisons.