

## Lab 10. Lambda expressions

1. Create a `std::vector` of string elements. Sort that vector using a lambda expression that compares two strings based on their length first and then lexicographical.
2. Write a lambda expression that returns the biggest number from a list of integers.
3. Create a vector with int values of your own implementation that includes functions like Add and Delete.

```
class MyVector {  
    bool Add(int); // return true if the value was added. As a result, the  
    size of the vector increases with one.  
    bool Delete(int index); // returns true if the value from the index  
    was removed. As a result, the size of the vector decreases with one.  
}
```

Add two methods **Iterate** and **Filter**. The first one iterates through all of the elements in the vector and changes each element based on a lambda function received as an argument. The second function removes all elements from the vector that are matched by a lambda function received as an argument.