

## LABWORK 6

Due date: 23:59 18.03.2018

(There is %10 penalty for each day )

**Q1)** Define a queue class called QUEUE. All data in a QUEUE must be stored in a DoublyLinkedList instance. Implement the following member methods in the QUEUE class:

- enqueue– insert a new element into the queue
- dequeue– Removes the top element from the queue and returns it
- isEmpty – Returns true if the queue is empty, and false otherwise.
- Class definition and method implementation should be performed in a header filed named **QUEUE.h**

**Q2)** Implement the following non-member function which reverses a given queue. Reverse operation must be done using **stack-based** logic. Thus, you cannot use any data structure other than stacks and you can use only one queue which is given as the input parameter. Data in the queue must be reversed, do not just print reverse. You can use stack of STL library.

```
void reverseQueue(QUEUE & que)
```