# And Now C++

When working in practice, there is a high probability that you will not create new code all the time but very often just adjust or port code of somebody else to a different platform or a different language.

In this assignment you are going to translate the mystack and myqueue API from assignment 3 from C to C++ and in this way get yourself acquainted and started with C++.

This assignment is not only about code translation but also about new design and implementation.

You’ll have to think about questions like: Which methods am I going to use and which classes? Am I going to use classes or structs or both? How am I going to structure my code in files? Do I have to change Makefile?

## Requirements

1. No global variables
2. Use classes whenever appropriate
3. Use namespace
4. Use Google Test Framework.
5. Try to make C++ program, not only automatic C++ translation

## Google Test Framework

We used Unity to Unit Test our C programs. Unity has no support for C++ and for mocks which we are going to use later on.

For our C++ programs we are going to use Google Test Framework. Its use for this assignment is very similar to Unity.

To find out how Google Test Framework works you can consult Internet or look at the simple example provided with this assignment.

One nice source for a simple Google Test Framework explanation can be found here:

<https://developer.ibm.com/technologies/systems/articles/au-googletestingframework/>

## More Resources:

1. Example implementation of one API of the linked list library with a Google Test and a Makefile in t-sem3-cb-code repository

2. Nice video with advices on structuring your C++ files:

<https://www.youtube.com/watch?v=pvzT4hIVE4s>

## Delivery

1. C++ code for mystack and myqueue API with the corresponding Google Test
2. Document where you describe and substantiate the process and choices you have made during the translation.