

## ISM Assignment 2 for C/C++ Secure Application Development

Write a C++ application using OpenSSL development library having the below specification:

1. Define and implement the class named **MessageDigest** as wrapper for OpenSSL message digest functionality. The class **MessageDigest** must contain the following items at least:
  - 1.1 Static fields for supported message digest algorithms (two algorithms at least).
  - 1.2 Constructor(s) to initialize the object **MessageDigest**. Please, document the constructor(s) within comments. **(2p)**
  - 1.3 Methods to pass content to be digested and to get the message digest result. Please document within comments any method you add. **(4p)**
  - 1.4 Destructor, if the case.
2. Implement the function **main()** where the message digest functionality implemented by the class **MessageDigest** is applied for two different supported message digest algorithms according to the class definition. The computed message digests by using the class **MessageDigest** will be printed out in the console. **(3p)**

The C development library OpenSSL can be downloaded from your ISM accounts (x86 Win version: <https://portal.ism.ase.ro/mod/folder/view.php?id=450> ) as binary bundle.

All the solutions will be cross-checked with MOSS from Stanford. Solutions with a similarity of more than 50% will be canceled.