

Consider you have a list of pre-defined clear passwords stored by the file ***10-million-password-list-top-1000000.txt***.

Write a C/C++ application (one single source code file) using OpenSSL development library to:

1. Identify the clear password having the SHA-1 message digest as **2e1a480670e31a5d015e28de043136b62e762d29** (as hex binary representation). The clear password will be printed into the Console Application. The passwords stored by the file must be treated as binary input for the message digest algorithm.
2. Create an output text file (**pass_SHA1.txt**) containing the all SHA-1 message digests in hex representation (all hex pairs contain the both letters). Each line of the output file corresponds to the clear password placed on the same line in the ***10-million-password-list-top-1000000.txt***.