**Exercise 2.**

*In this exercise questions about core concepts will be answered*

*What’s the difference between a declaration and definition?*

When defining a variable, memory space will be reserved for the variable. With the declaration of a variable the existence of the variable will only be announced.

*What are header files used for?*

A header file is a file that contains many external functions which can be included by your pre-compiler in your program when using the #include directive in your source code. Header files usually have the extension “.h” and by convention usually only contain declarations and no definitions.

*In what part of the construction process does a compiler use header files and in what part libraries? (why does the compiler use header files and libraries)*

The header files are read by the compiler immediately from the source file. Thereafter, the linker will use the libraries if they are needed by the object file. (the header files make life easier by declaring functions, the libraries take more time and memory space and follow up in the later stage)

*Is a library an object module?*

While a library can contain object modules, it also contains other resources such as configuration data, documentation and more. This is the reason that a library cannot be called an object module.

*Why is an object module obtained after compiling a source containing int main() not an executable program?*

An object module is not executable because the linker still has to piece together all the objects. When a program in C tries to use a function that is contained in one of the libraries, the linker has to search for this function to be able to successfully complete the program.