About the programming tool used

Language:   
**C++** is a statically typed, free-form, multi-paradigm, compiled, general-purpose programming language. It is regarded as an intermediate-level language, as it comprises a combination of both high-level and low-level language features. Developed by Bjarne Stroustrup starting in 1979 at Bell Labs, it adds object oriented features, such as classes, and other enhancements to the C programming language. Originally named C with Classes, the language was renamed C++ in 1983, as a pun involving the increment operator.

C++ is one of the most popular programming languages and is implemented on a wide variety of hardware and operating system platforms. As an efficient compiler to native code, its application domains include systems software, application software, device drivers, embedded software, high-performance server and client applications, and entertainment software such as video games. Several groups provide both free and proprietary C++ compiler software, including the GNU Project, Microsoft, Intel and Embarcadero Technologies.

Compiler software:   
**Code::Blocks** is a free and open source, cross-platform IDE which supports multiple compilers including GCC and Visual C++. It is developed in C++ using wxWidgets as the GUI toolkit. Using a plugin architecture, its capabilities and features are defined by the provided plugins. Currently, Code::Blocks is oriented towards C and C++. It can also be used for creating ARM, AVR, D, *DirectX*, FLTK, Fortran, *GLFW*, *GLUT*, GTK+, Irrlicht, Lightfeather, MATLAB, *OGRE*, *OpenGL*, Qt, SDL, SFML, *STL*, SmartWin and wx programs and applications, although in some cases installing third-party SDKs or frameworks is necessary.

Compiler:   
The **GNU Compiler** Collection includes front ends for C, C++, C#, Fortran, Java, Ada, and Go, as well as libraries for these languages (libstdc++, libgcj,...). GCC was originally written as the compiler for the GNU operating system. The GNU system was developed to be 100% free software, free in the sense that it respects the user's freedom.