**Compiler**

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The compiler is similar to the assembler. It converts high-level source code (such as C) into low-level code or directly into object file. Therefore, once the output file is created, the previous process will be executed on the file. The end result is and executable file.

**Environment Setup:**

We have different options such as:

* MICROSOFT visual C/C++ (Visual Code).
* Orwell Dev-C++
* Code::Blocks

1. Download Orwell Dev-C++: [link](http://orwelldevcpp.blogspot.com/)
   1. Dev-C++ create directory named MinGW64.
2. Add bin folder of Orwell Dev-C++ to path environment variables.

**Compile .c or .cpp files**

Command: gcc -m32 Hellostudents.c -o HellowStudents.exe

**Decompile**

to get assembly again we need to decompile application, in the same dev-c++ folder where the gcc executable located, is a file called **objdump.exe**

objdump.exe aim to dissemble executable programs.

Command: objdump -d -Mintel HelloStudents.exe > disam.txt [Enter].

-d: tells the tool to disassemble the input file.  
 -Mintel: is a disassembler option that allows us to select disassembly for the given architecture  
 (Intel in our case).