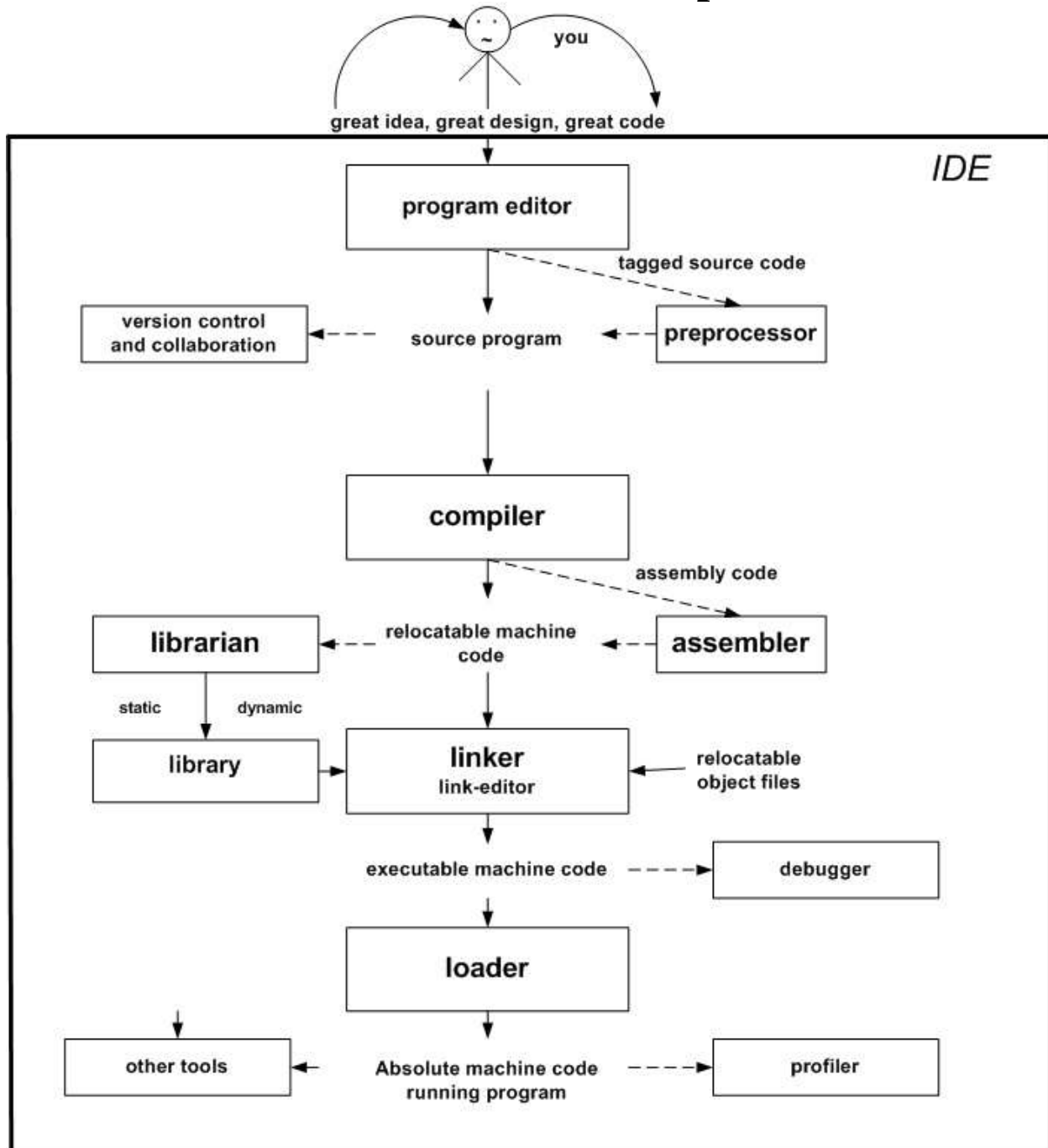


CST8152 – Compilers

Article #2

The Context of a Compiler



Program editor: Allows the user to enter the text (code) of the program and save it in a text form (ASCII or Unicode). Any text editor can be used as program editors, but modern specialized program editors provide many additional features specific to the programming language. Modern program editor also incorporate some compiler elements like static syntax checking.

Preprocessor: The purpose of the preprocessor is to augment automatically the code of the program following some directives provided by the programmer as a script. Preprocessors are language specific and not all programming languages have a preprocessor.

Compiler: Translate the text of the program in another language – usually assembler or some form of machine code.

Assembler: Assemblers are simple compilers which translate assembly language into machine code.

Linker: Combines (links) all necessary components of a program into some executable form. Not all programming languages require linkers.

Loader: Loads an executable program and passes the control to the program.

Librarian: Allows creating and maintaining libraries of pre-compiled component which can be used later without the need to be compiled again.

Debugger: Allows the user to trace the execution of a program statement by statement and inspect the content of different parts of the program memory.

Other tools: Automatic or Unit testers (JUnit), Version Control and, Collaboration (Git), Style Formatters, Code Inspectors and Analyzers, Profilers, Run-time Inspectors, Error loggers, Make and build scripting tools (Ant), Refactoring tools, Task Managers (Mylyn), Project Managers (Maven).