These compiled languages allow the programmer to write programs in terms that are syntactically richer, and more capable of abstracting the code, making it easy to target varying machine instruction sets via compilation declarations and heuristics. For this purpose, algorithms are classified into orders using so-called Big O notation, which expresses resource use, such as execution time or memory consumption, in terms of the size of an input. By the late 1960s, data storage devices and computer terminals became inexpensive enough that programs could be created by typing directly into the computers. Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment. While these are sometimes considered programming, often the term software development is used for this larger overall process – with the terms programming, implementation, and coding reserved for the writing and editing of code per se. Allen Downey, in his book How To Think Like A Computer Scientist, writes: Many computer languages provide a mechanism to call functions provided by shared libraries. Many applications use a mix of several languages in their construction and use. For example, COBOL is still strong in corporate data centers often on large mainframe computers, Fortran in engineering applications, scripting languages in Web development, and C in embedded software. In the 9th century, the Arab mathematician Al-Kindi described a cryptographic algorithm for deciphering encrypted code, in A Manuscript on Deciphering Cryptographic Messages. The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA. Various visual programming languages have also been developed with the intent to resolve readability concerns by adopting non-traditional approaches to code structure and display. After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug. When debugging the problem in a GUI, the programmer can try to skip some user interaction from the original problem description and check if remaining actions are sufficient for bugs to appear. Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users. Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications. Also, specific user environment and usage history can make it difficult to reproduce the problem. Normally the first step in debugging is to attempt to reproduce the problem. Provided the functions in a library follow the appropriate run-time conventions (e.g., method of passing arguments), then these functions may be written in any other language. However, because an assembly language is little more than a different notation for a machine language, two machines with different instruction sets also have different assembly languages. Expert programmers are familiar with a variety of well-established algorithms and their respective complexities and use this knowledge to choose algorithms that are best suited to the circumstances. Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation. For example, COBOL is still strong in corporate data centers often on large mainframe computers, Fortran in engineering applications, scripting languages in Web development, and C in embedded software. However, because an assembly language is little more than a different notation for a machine language, two machines with different instruction sets also have different assembly languages. Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications. Use of a static code analysis tool can help detect some possible problems.