

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. For example, when a bug in a compiler can make it crash when parsing some large source file, a simplification of the test case that results in only few lines from the original source file can be sufficient to reproduce the same crash. He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm. There exist a lot of different approaches for each of those tasks. Many factors, having little or nothing to do with the ability of the computer to efficiently compile and execute the code, contribute to readability. It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages. The first computer program is generally dated to 1843, when mathematician Ada Lovelace published an algorithm to calculate a sequence of Bernoulli numbers, intended to be carried out by Charles Babbage's Analytical Engine. It affects the aspects of quality above, including portability, usability and most importantly maintainability. Computer programmers are those who write computer software. Computer programmers are those who write computer software. It affects the aspects of quality above, including portability, usability and most importantly maintainability. There exist a lot of different approaches for each of those tasks. The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA. A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it. Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages. 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. 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. Readability is important because programmers spend the majority of their time reading, trying to understand, reusing and modifying existing source code, rather than writing new source code. Use of a static code analysis tool can help detect some possible problems. However, readability is more than just programming style. Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment. It is usually easier to code in "high-level" languages than in "low-level" ones. 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.