

Languages form an approximate spectrum from "low-level" to "high-level"; "low-level" languages are typically more machine-oriented and faster to execute, whereas "high-level" languages are more abstract and easier to use but execute less quickly. Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards. There are many approaches to the Software development process. 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. Scripting and breakpointing is also part of this process. Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users. 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. One approach popular for requirements analysis is Use Case analysis. Trade-offs from this ideal involve finding enough programmers who know the language to build a team, the availability of compilers for that language, and the efficiency with which programs written in a given language execute. Also, specific user environment and usage history can make it difficult to reproduce the problem. It affects the aspects of quality above, including portability, usability and most importantly maintainability. It is usually easier to code in "high-level" languages than in "low-level" ones. The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA. There exist a lot of different approaches for each of those tasks. Assembly languages were soon developed that let the programmer specify instruction in a text format (e.g., ADD X, TOTAL), with abbreviations for each operation code and meaningful names for specifying addresses. However, readability is more than just programming style. It is very difficult to determine what are the most popular modern programming languages. Assembly languages were soon developed that let the programmer specify instruction in a text format (e.g., ADD X, TOTAL), with abbreviations for each operation code and meaningful names for specifying addresses. Computer programmers are those who write computer software. New languages are generally designed around the syntax of a prior language with new functionality added, (for example C++ adds object-orientation to C, and Java adds memory management and bytecode to C++, but as a result, loses efficiency and the ability for low-level manipulation). It is usually easier to code in "high-level" languages than in "low-level" ones. The following properties are among the most important: In computer programming, readability refers to the ease with which a human reader can comprehend the purpose, control flow, and operation of source code. Different programming languages support different styles of programming (called programming paradigms). Many programmers use forms of Agile software development where the various stages of formal software development are more integrated together into short cycles that take a few weeks rather than years.