Their jobs usually involve: Although programming has been presented in the media as a somewhat mathematical subject, some research shows that good programmers have strong skills in natural human languages, and that learning to code is similar to learning a foreign language. 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. Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment. 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. The choice of language used is subject to many considerations, such as company policy, suitability to task, availability of third-party packages, or individual preference. There exist a lot of different approaches for each of those tasks. 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. Programs were mostly entered using punched cards or paper tape. The academic field and the engineering practice of computer programming are both largely concerned with discovering and implementing the most efficient algorithms for a given class of problems. It is usually easier to code in "high-level" languages than in "low-level" ones. The choice of language used is subject to many considerations, such as company policy, suitability to task, availability of third-party packages, or individual preference. Their jobs usually involve: Although programming has been presented in the media as a somewhat mathematical subject, some research shows that good programmers have strong skills in natural human languages, and that learning to code is similar to learning a foreign language. It affects the aspects of quality above, including portability, usability and most importantly maintainability. Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages. There are many approaches to the Software development process. The choice of language used is subject to many considerations, such as company policy, suitability to task, availability of third-party packages, or individual preference. Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks. Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks. There exist a lot of different approaches for each of those tasks. 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. Auxiliary tasks accompanying and related to programming include analyzing requirements, testing, debugging (investigating and fixing problems), implementation of build systems, and management of derived artifacts, such as programs' machine code. Different programming languages support different styles of programming (called programming paradigms). Programs were mostly entered using punched cards or paper tape. 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.