Many applications use a mix of several languages in their construction and use..  
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.  
Programmers typically use high-level programming languages that are more easily intelligible to humans than machine code, which is directly executed by the central processing unit.  
However, Charles Babbage had already written his first program for the Analytical Engine in 1837.  
A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it.  
 Code-breaking algorithms have also existed for centuries.  
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.  
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.  
Techniques like Code refactoring can enhance readability.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
 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.