Ideally, the programming language best suited for the task at hand will be selected..  
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.  
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.  
 Debugging is often done with IDEs. Standalone debuggers like GDB are also used, and these often provide less of a visual environment, usually using a command line.  
Proficient programming usually requires expertise in several different subjects, including knowledge of the application domain, details of programming languages and generic code libraries, specialized algorithms, and formal logic.  
 Different programming languages support different styles of programming (called programming paradigms).  
 Code-breaking algorithms have also existed for centuries.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
 In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form.  
 It is very difficult to determine what are the most popular modern programming languages.  
Integrated development environments (IDEs) aim to integrate all such help.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
 Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.