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Expert programmers are familiar with a variety of well-established algorithms and their respective complexities and use this knowledge to choose algorithms that are best suited to the circumstances.  
The source code of a program is written in one or more languages that are intelligible to programmers, rather than machine code, which is directly executed by the central processing unit.  
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.  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
To produce machine code, the source code must either be compiled or transpiled.  
A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it.  
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He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
 Code-breaking algorithms have also existed for centuries.  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
Integrated development environments (IDEs) aim to integrate all such help.