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.  
To produce machine code, the source code must either be compiled or transpiled.  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
Also, specific user environment and usage history can make it difficult to reproduce the problem.  
Programming languages are essential for software development.  
However, while these might be considered part of the programming process, often the term software development is more likely used for this larger overall process – whereas the terms programming, implementation, and coding tend to be focused on the actual writing of code.  
In the 9th century, the Arab mathematician Al-Kindi described a cryptographic algorithm for deciphering encrypted code, in A Manuscript on Deciphering Cryptographic Messages.  
  
The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'.  
 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.  
 Code-breaking algorithms have also existed for centuries.  
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 Readability is important because programmers spend the majority of their time reading, trying to understand, reusing and modifying existing source code, rather than writing new source code.  
Provided the functions in a library follow the appropriate run-time conventions (e.g., method of passing arguments), then these functions may be written in any other language.  
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