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.  
Trial-and-error/divide-and-conquer is needed: the programmer will try to remove some parts of the original test case and check if the problem still exists.  
Programming languages are essential for software development.  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.  
However, because an assembly language is little more than a different notation for a machine language, two machines with different instruction sets also have different assembly languages.  
Integrated development environments (IDEs) aim to integrate all such help.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
Also, those involved with software development may at times engage in reverse engineering, which is the practice of seeking to understand an existing program so as to re-implement its function in some way.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
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.  
To produce machine code, the source code must either be compiled or transpiled.