Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages..  
 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.  
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.  
For example, when a bug in a compiler can make it crash when parsing some large source file, a simplification of the test case that results in only few lines from the original source file can be sufficient to reproduce the same crash.  
Many applications use a mix of several languages in their construction and use.  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
One approach popular for requirements analysis is Use Case analysis.  
 Programmable devices have existed for centuries.  
There are many approaches to the Software development process.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
 Various visual programming languages have also been developed with the intent to resolve readability concerns by adopting non-traditional approaches to code structure and display.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
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.