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 first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging).  
  
 Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks.  
 Computer programmers are those who write computer software.  
Ideally, the programming language best suited for the task at hand will be selected.  
However, readability is more than just programming style.  
 Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications.  
 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.  
There are many approaches to the Software development process.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
When debugging the problem in a GUI, the programmer can try to skip some user interaction from the original problem description and check if remaining actions are sufficient for bugs to appear.  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.  
For example, COBOL is still strong in corporate data centers often on large mainframe computers, Fortran in engineering applications, scripting languages in Web development, and C in embedded software.  
 Code-breaking algorithms have also existed for centuries.  
 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.