Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages..  
However, with the concept of the stored-program computer introduced in 1949, both programs and data were stored and manipulated in the same way in computer memory.  
 Allen Downey, in his book How To Think Like A Computer Scientist, writes:  
 Many computer languages provide a mechanism to call functions provided by shared libraries.  
 Following a consistent programming style often helps readability.  
A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
 These compiled languages allow the programmer to write programs in terms that are syntactically richer, and more capable of abstracting the code, making it easy to target varying machine instruction sets via compilation declarations and heuristics.  
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.  
Normally the first step in debugging is to attempt to reproduce the problem.  
  
 Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
 The first computer program is generally dated to 1843, when mathematician Ada Lovelace published an algorithm to calculate a sequence of Bernoulli numbers, intended to be carried out by Charles Babbage's Analytical Engine.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
One approach popular for requirements analysis is Use Case analysis.