Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA)..  
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.  
In 1206, the Arab engineer Al-Jazari invented a programmable drum machine where a musical mechanical automaton could be made to play different rhythms and drum patterns, via pegs and cams.  
 Programmable devices have existed for centuries.  
While these are sometimes considered programming, often the term software development is used for this larger overall process – with the terms programming, implementation, and coding reserved for the writing and editing of code per se.  
Scripting and breakpointing is also part of this process.  
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.  
The following properties are among the most important:  
  
 In computer programming, readability refers to the ease with which a human reader can comprehend the purpose, control flow, and operation of source code.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
Techniques like Code refactoring can enhance readability.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
  
 Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks.  
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.