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..  
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.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic 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).  
Techniques like Code refactoring can enhance readability.  
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.  
Ideally, the programming language best suited for the task at hand will be selected.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
Also, specific user environment and usage history can make it difficult to reproduce the problem.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
 High-level languages made the process of developing a program simpler and more understandable, and less bound to the underlying hardware.  
There are many approaches to the Software development 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 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.