However, Charles Babbage had already written his first program for the Analytical Engine in 1837..  
It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages.  
 It is very difficult to determine what are the most popular modern programming languages.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
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.  
This can be a non-trivial task, for example as with parallel processes or some unusual software bugs.  
 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.  
  
As early as the 9th century, a programmable music sequencer was invented by the Persian Banu Musa brothers, who described an automated mechanical flute player in the Book of Ingenious Devices.  
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.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.