It affects the aspects of quality above, including portability, usability and most importantly maintainability..  
 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.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
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.  
Ideally, the programming language best suited for the task at hand will be selected.  
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.  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
 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).  
However, Charles Babbage had already written his first program for the Analytical Engine in 1837.  
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.  
 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.  
 Various visual programming languages have also been developed with the intent to resolve readability concerns by adopting non-traditional approaches to code structure and display.  
 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.