Ideally, the programming language best suited for the task at hand will be selected..  
 In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form.  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
Many factors, having little or nothing to do with the ability of the computer to efficiently compile and execute the code, contribute to readability.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
By the late 1960s, data storage devices and computer terminals became inexpensive enough that programs could be created by typing directly into the computers.  
In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.  
 Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA).  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
 Code-breaking algorithms have also existed for centuries.  
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.  
Methods of measuring programming language popularity include: counting the number of job advertisements that mention the language, the number of books sold and courses teaching the language (this overestimates the importance of newer languages), and estimates of the number of existing lines of code written in the language (this underestimates the number of users of business languages such as COBOL).  
Integrated development environments (IDEs) aim to integrate all such help.  
Scripting and breakpointing is also part of this process.  
However, because an assembly language is little more than a different notation for a machine language, two machines with different instruction sets also have different assembly languages.