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..  
For this purpose, algorithms are classified into orders using so-called Big O notation, which expresses resource use, such as execution time or memory consumption, in terms of the size of an input.  
This can be a non-trivial task, for example as with parallel processes or some unusual software bugs.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
  
 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.  
Ideally, the programming language best suited for the task at hand will be selected.  
One approach popular for requirements analysis is Use Case analysis.  
Later a control panel (plug board) added to his 1906 Type I Tabulator allowed it to be programmed for different jobs, and by the late 1940s, unit record equipment such as the IBM 602 and IBM 604, were programmed by control panels in a similar way, as were the first electronic computers.  
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.  
 Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA).  
By the late 1960s, data storage devices and computer terminals became inexpensive enough that programs could be created by typing directly into the computers.  
 Auxiliary tasks accompanying and related to programming include analyzing requirements, testing, debugging (investigating and fixing problems), implementation of build systems, and management of derived artifacts, such as programs' machine code.  
Techniques like Code refactoring can enhance readability.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.