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..  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.  
For example, COBOL is still strong in corporate data centers often on large mainframe computers, Fortran in engineering applications, scripting languages in Web development, and C in embedded software.  
It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages.  
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.  
 Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA).  
In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.  
 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.  
 Following a consistent programming style often helps readability.  
Programmers typically use high-level programming languages that are more easily intelligible to humans than machine code, which is directly executed by the central processing unit.  
 It is very difficult to determine what are the most popular modern programming languages.  
 Debugging is often done with IDEs. Standalone debuggers like GDB are also used, and these often provide less of a visual environment, usually using a command line.  
Expert programmers are familiar with a variety of well-established algorithms and their respective complexities and use this knowledge to choose algorithms that are best suited to the circumstances.  
 Allen Downey, in his book How To Think Like A Computer Scientist, writes:  
 Many computer languages provide a mechanism to call functions provided by shared libraries.  
 Programmable devices have existed for centuries.