The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'..  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
 In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
Some of these factors include:  
 The presentation aspects of this (such as indents, line breaks, color highlighting, and so on) are often handled by the source code editor, but the content aspects reflect the programmer's talent and skills.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
FORTRAN, the first widely used high-level language to have a functional implementation, came out in 1957, and many other languages were soon developed—in particular, COBOL aimed at commercial data processing, and Lisp for computer research.  
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.  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.  
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 involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
 Programs were mostly entered using punched cards or paper tape.