By the late 1960s, data storage devices and computer terminals became inexpensive enough that programs could be created by typing directly into the computers..  
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.  
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).  
 It is very difficult to determine what are the most popular modern programming languages.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
Proficient programming usually requires expertise in several different subjects, including knowledge of the application domain, details of programming languages and generic code libraries, specialized algorithms, and formal logic.  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.  
 In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form.  
However, readability is more than just programming style.  
Also, specific user environment and usage history can make it difficult to reproduce the problem.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
One approach popular for requirements analysis is Use Case analysis.  
 Programs were mostly entered using punched cards or paper tape.  
  
 Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks.