By the late 1960s, data storage devices and computer terminals became inexpensive enough that programs could be created by typing directly into the computers..  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
 Various visual programming languages have also been developed with the intent to resolve readability concerns by adopting non-traditional approaches to code structure and display.  
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.  
 Programs were mostly entered using punched cards or paper tape.  
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.  
Techniques like Code refactoring can enhance readability.  
 Computer programmers are those who write computer software.  
However, with the concept of the stored-program computer introduced in 1949, both programs and data were stored and manipulated in the same way in computer memory.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
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.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
Many applications use a mix of several languages in their construction and use.  
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.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.