Programs were mostly entered using punched cards or paper tape..  
 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.  
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.  
 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.  
Ideally, the programming language best suited for the task at hand will be selected.  
 Following a consistent programming style often helps readability.  
  
The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'.  
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).  
 High-level languages made the process of developing a program simpler and more understandable, and less bound to the underlying hardware.  
For example, when a bug in a compiler can make it crash when parsing some large source file, a simplification of the test case that results in only few lines from the original source file can be sufficient to reproduce the same crash.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
This can be a non-trivial task, for example as with parallel processes or some unusual software bugs.  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
 It is very difficult to determine what are the most popular modern programming languages.