Many factors, having little or nothing to do with the ability of the computer to efficiently compile and execute the code, contribute to readability.  
The choice of language used is subject to many considerations, such as company policy, suitability to task, availability of third-party packages, or individual preference.  
When debugging the problem in a GUI, the programmer can try to skip some user interaction from the original problem description and check if remaining actions are sufficient for bugs to appear.  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.  
Programming languages are essential for software development.  
In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.  
To produce machine code, the source code must either be compiled or transpiled.  
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.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages.  
By the late 1960s, data storage devices and computer terminals became inexpensive enough that programs could be created by typing directly into the computers.  
Also, those involved with software development may at times engage in reverse engineering, which is the practice of seeking to understand an existing program so as to re-implement its function in some way.  
Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages.  
The purpose of programming is to find a sequence of instructions that will automate the performance of a task (which can be as complex as an operating system) on a computer, often for solving a given problem.  
 Programs were mostly entered using punched cards or paper tape.