Assembly languages were soon developed that let the programmer specify instruction in a text format (e.g., ADD X, TOTAL), with abbreviations for each operation code and meaningful names for specifying addresses.  
One approach popular for requirements analysis is Use Case analysis.  
There exist a lot of different approaches for each of those tasks.  
A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it.  
However, Charles Babbage had already written his first program for the Analytical Engine in 1837.  
There are many approaches to the Software development process.  
Programming involves tasks such as analysis, generating algorithms, profiling algorithms' accuracy and resource consumption, and the implementation of algorithms (usually in a particular programming language, commonly referred to as coding).  
 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.  
Proficient programming thus usually requires expertise in several different subjects, including knowledge of the application domain, specialized algorithms, and formal logic.  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
For example, COBOL is still strong in corporate data centers often on large mainframe computers, Fortran in engineering applications, scripting languages in Web development, and C in embedded software.  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
The source code of a program is written in one or more languages that are intelligible to programmers, rather than machine code, which is directly executed by the central processing unit.