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.  
This can be a non-trivial task, for example as with parallel processes or some unusual software bugs.  
There exist a lot of different approaches for each of those tasks.  
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.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.  
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.  
Languages form an approximate spectrum from "low-level" to "high-level"; "low-level" languages are typically more machine-oriented and faster to execute, whereas "high-level" languages are more abstract and easier to use but execute less quickly.  
Proficient programming thus usually requires expertise in several different subjects, including knowledge of the application domain, specialized algorithms, and formal logic.  
Integrated development environments (IDEs) aim to integrate all such help.  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
Normally the first step in debugging is to attempt to reproduce the problem.  
 Different programming languages support different styles of programming (called programming paradigms).  
Ideally, the programming language best suited for the task at hand will be selected.