It is very difficult to determine what are the most popular modern programming languages..  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
Techniques like Code refactoring can enhance readability.  
 The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging).  
 New languages are generally designed around the syntax of a prior language with new functionality added, (for example C++ adds object-orientation to C, and Java adds memory management and bytecode to C++, but as a result, loses efficiency and the ability for low-level manipulation).  
The following properties are among the most important:  
  
 In computer programming, readability refers to the ease with which a human reader can comprehend the purpose, control flow, and operation of source code.  
Provided the functions in a library follow the appropriate run-time conventions (e.g., method of passing arguments), then these functions may be written in any other language.  
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.  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
 Programs were mostly entered using punched cards or paper tape.  
 Computer programmers are those who write computer software.  
Scripting and breakpointing is also part of this process.  
This can be a non-trivial task, for example as with parallel processes or some unusual software bugs.