It is very difficult to determine what are the most popular modern programming languages..  
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.  
 Allen Downey, in his book How To Think Like A Computer Scientist, writes:  
 Many computer languages provide a mechanism to call functions provided by shared libraries.  
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.  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
Scripting and breakpointing is also part of this process.  
Trade-offs from this ideal involve finding enough programmers who know the language to build a team, the availability of compilers for that language, and the efficiency with which programs written in a given language execute.  
Their jobs usually involve:  
 Although programming has been presented in the media as a somewhat mathematical subject, some research shows that good programmers have strong skills in natural human languages, and that learning to code is similar to learning a foreign language.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
Normally the first step in debugging is to attempt to reproduce the problem.  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
There exist a lot of different approaches for each of those tasks.  
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.  
 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).