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.  
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.  
In the 9th century, the Arab mathematician Al-Kindi described a cryptographic algorithm for deciphering encrypted code, in A Manuscript on Deciphering Cryptographic Messages.  
One approach popular for requirements analysis is Use Case analysis.  
Use of a static code analysis tool can help detect some possible problems.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
Techniques like Code refactoring can enhance readability.  
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.  
 These compiled languages allow the programmer to write programs in terms that are syntactically richer, and more capable of abstracting the code, making it easy to target varying machine instruction sets via compilation declarations and heuristics.  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
 High-level languages made the process of developing a program simpler and more understandable, and less bound to the underlying hardware.  
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.  
Many applications use a mix of several languages in their construction and use.  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
Later a control panel (plug board) added to his 1906 Type I Tabulator allowed it to be programmed for different jobs, and by the late 1940s, unit record equipment such as the IBM 602 and IBM 604, were programmed by control panels in a similar way, as were the first electronic computers.