By the late 1960s, data storage devices and computer terminals became inexpensive enough that programs could be created by typing directly into the computers.  
Techniques like Code refactoring can enhance readability.  
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.  
Techniques like Code refactoring can enhance readability.  
For example, when a bug in a compiler can make it crash when parsing some large source file, a simplification of the test case that results in only few lines from the original source file can be sufficient to reproduce the same crash.  
A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it.  
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.  
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Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
Ideally, the programming language best suited for the task at hand will be selected.  
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.  
To produce machine code, the source code must either be compiled or transpiled.  
There exist a lot of different approaches for each of those tasks.  
One approach popular for requirements analysis is Use Case analysis.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.