He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
Use of a static code analysis tool can help detect some possible problems.  
This is interpreted into machine code.  
Integrated development environments (IDEs) aim to integrate all such help.  
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.  
However, with the concept of the stored-program computer introduced in 1949, both programs and data were stored and manipulated in the same way in computer memory.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
This is interpreted into machine code.  
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.  
Many applications use a mix of several languages in their construction and use.  
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.  
 Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA).  
 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.  
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