Code-breaking algorithms have also existed for centuries..  
By the late 1960s, data storage devices and computer terminals became inexpensive enough that programs could be created by typing directly into the computers.  
Use of a static code analysis tool can help detect some possible problems.  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
Programming languages are essential for software development.  
 Programs were mostly entered using punched cards or paper tape.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
 Auxiliary tasks accompanying and related to programming include analyzing requirements, testing, debugging (investigating and fixing problems), implementation of build systems, and management of derived artifacts, such as programs' machine code.  
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.  
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.  
 Different programming languages support different styles of programming (called programming paradigms).  
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.  
 The academic field and the engineering practice of computer programming are both largely concerned with discovering and implementing the most efficient algorithms for a given class of problems.