He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm..  
Also, specific user environment and usage history can make it difficult to reproduce the problem.  
 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.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
 Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications.  
Many programmers use forms of Agile software development where the various stages of formal software development are more integrated together into short cycles that take a few weeks rather than years.  
Use of a static code analysis tool can help detect some possible problems.  
Normally the first step in debugging is to attempt to reproduce the problem.  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
As early as the 9th century, a programmable music sequencer was invented by the Persian Banu Musa brothers, who described an automated mechanical flute player in the Book of Ingenious Devices.  
 Different programming languages support different styles of programming (called programming paradigms).  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
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.  
However, readability is more than just programming style.