In the 9th century, the Arab mathematician Al-Kindi described a cryptographic algorithm for deciphering encrypted code, in A Manuscript on Deciphering Cryptographic Messages.  
Programming languages are essential for software development.  
There are many approaches to the Software development process.  
Many applications use a mix of several languages in their construction and use.  
However, because an assembly language is little more than a different notation for a machine language, two machines with different instruction sets also have different assembly languages.  
However, Charles Babbage had already written his first program for the Analytical Engine in 1837.  
Compiling takes the source code from a low-level programming language and converts it into machine code.  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
Many applications use a mix of several languages in their construction and use.  
 Following a consistent programming style often helps readability.  
Transpiling on the other hand, takes the source-code from a high-level programming language and converts it into bytecode.  
 The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging).  
Scripting and breakpointing is also part of this process.  
 The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging).  
Compiling takes the source code from a low-level programming language and converts it into machine code.