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.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
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.  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
Trial-and-error/divide-and-conquer is needed: the programmer will try to remove some parts of the original test case and check if the problem still exists.  
  
The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'.  
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.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
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 Computer programmers are those who write computer software.  
Provided the functions in a library follow the appropriate run-time conventions (e.g., method of passing arguments), then these functions may be written in any other language.  
 Different programming languages support different styles of programming (called programming paradigms).  
Transpiling on the other hand, takes the source-code from a high-level programming language and converts it into bytecode.  
 Different programming languages support different styles of programming (called programming paradigms).