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..  
Many applications use a mix of several languages in their construction and use.  
There are many approaches to the Software development process.  
 It is very difficult to determine what are the most popular modern programming languages.  
Scripting and breakpointing is also part of this process.  
Proficient programming usually requires expertise in several different subjects, including knowledge of the application domain, details of programming languages and generic code libraries, specialized algorithms, and formal logic.  
 Debugging is often done with IDEs. Standalone debuggers like GDB are also used, and these often provide less of a visual environment, usually using a command line.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
 Computer programmers are those who write computer software.  
It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages.  
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.  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
Many factors, having little or nothing to do with the ability of the computer to efficiently compile and execute the code, contribute to readability.  
Assembly languages were soon developed that let the programmer specify instruction in a text format (e.g., ADD X, TOTAL), with abbreviations for each operation code and meaningful names for specifying addresses.