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.  
 Code-breaking algorithms have also existed for centuries.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
Integrated development environments (IDEs) aim to integrate all such help.  
There exist a lot of different approaches for each of those tasks.  
 Different programming languages support different styles of programming (called programming paradigms).  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
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.  
 Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA).  
The choice of language used is subject to many considerations, such as company policy, suitability to task, availability of third-party packages, or individual preference.  
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.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages.  
 Computer programmers are those who write computer software.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.