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.  
Their jobs usually involve:  
 Although programming has been presented in the media as a somewhat mathematical subject, some research shows that good programmers have strong skills in natural human languages, and that learning to code is similar to learning a foreign language.  
FORTRAN, the first widely used high-level language to have a functional implementation, came out in 1957, and many other languages were soon developed—in particular, COBOL aimed at commercial data processing, and Lisp for computer research.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
Scripting and breakpointing is also part of this process.  
Ideally, the programming language best suited for the task at hand will be selected.  
However, readability is more than just programming style.  
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.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
 Allen Downey, in his book How To Think Like A Computer Scientist, writes:  
 Many computer languages provide a mechanism to call functions provided by shared libraries.  
Normally the first step in debugging is to attempt to reproduce the problem.