However, Charles Babbage had already written his first program for the Analytical Engine in 1837..  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
Programming languages are essential for software development.  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
 Programs were mostly entered using punched cards or paper tape.  
 The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging).  
Ideally, the programming language best suited for the task at hand will be selected.  
Techniques like Code refactoring can enhance readability.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
 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.  
 Code-breaking algorithms have also existed for centuries.  
When debugging the problem in a GUI, the programmer can try to skip some user interaction from the original problem description and check if remaining actions are sufficient for bugs to appear.  
 High-level languages made the process of developing a program simpler and more understandable, and less bound to the underlying hardware.  
Programmers typically use high-level programming languages that are more easily intelligible to humans than machine code, which is directly executed by the central processing unit.