Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users..  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
 The first computer program is generally dated to 1843, when mathematician Ada Lovelace published an algorithm to calculate a sequence of Bernoulli numbers, intended to be carried out by Charles Babbage's Analytical Engine.  
It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages.  
 Programs were mostly entered using punched cards or paper tape.  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
 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.  
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.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
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.  
 Code-breaking algorithms have also existed for centuries.  
Normally the first step in debugging is to attempt to reproduce the problem.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
 Different programming languages support different styles of programming (called programming paradigms).  
 Readability is important because programmers spend the majority of their time reading, trying to understand, reusing and modifying existing source code, rather than writing new source code.