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.  
In the 9th century, the Arab mathematician Al-Kindi described a cryptographic algorithm for deciphering encrypted code, in A Manuscript on Deciphering Cryptographic Messages.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
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.  
 Code-breaking algorithms have also existed for centuries.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
There are many approaches to the Software development process.  
 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.  
By the late 1960s, data storage devices and computer terminals became inexpensive enough that programs could be created by typing directly into the computers.  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
There exist a lot of different approaches for each of those tasks.  
One approach popular for requirements analysis is Use Case analysis.  
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.  
Many applications use a mix of several languages in their construction and use.