Whatever the approach to development may be, the final program must satisfy some fundamental properties..  
 Computer programmers are those who write computer software.  
The following properties are among the most important:  
  
 In computer programming, readability refers to the ease with which a human reader can comprehend the purpose, control flow, and operation of source code.  
Assembly languages were soon developed that let the programmer specify instruction in a text format (e.g., ADD X, TOTAL), with abbreviations for each operation code and meaningful names for specifying addresses.  
In 1206, the Arab engineer Al-Jazari invented a programmable drum machine where a musical mechanical automaton could be made to play different rhythms and drum patterns, via pegs and cams.  
Techniques like Code refactoring can enhance readability.  
Trade-offs from this ideal involve finding enough programmers who know the language to build a team, the availability of compilers for that language, and the efficiency with which programs written in a given language execute.  
Integrated development environments (IDEs) aim to integrate all such help.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
Programming languages are essential for software development.  
 Different programming languages support different styles of programming (called programming paradigms).  
  
One approach popular for requirements analysis is Use Case analysis.  
 In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form.