It affects the aspects of quality above, including portability, usability and most importantly maintainability..  
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.  
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.  
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.  
 High-level languages made the process of developing a program simpler and more understandable, and less bound to the underlying hardware.  
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.  
 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.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
For this purpose, algorithms are classified into orders using so-called Big O notation, which expresses resource use, such as execution time or memory consumption, in terms of the size of an input.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
 In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
Many applications use a mix of several languages in their construction and use.  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.