Their jobs usually involve:  
 Although programming has been presented in the media as a somewhat mathematical subject, some research shows that good programmers have strong skills in natural human languages, and that learning to code is similar to learning a foreign language..  
This can be a non-trivial task, for example as with parallel processes or some unusual software bugs.  
 The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging).  
 Different programming languages support different styles of programming (called programming paradigms).  
 In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form.  
Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages.  
 These compiled languages allow the programmer to write programs in terms that are syntactically richer, and more capable of abstracting the code, making it easy to target varying machine instruction sets via compilation declarations and heuristics.  
 High-level languages made the process of developing a program simpler and more understandable, and less bound to the underlying hardware.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
Programming languages are essential for software development.  
Many factors, having little or nothing to do with the ability of the computer to efficiently compile and execute the code, contribute to readability.  
Expert programmers are familiar with a variety of well-established algorithms and their respective complexities and use this knowledge to choose algorithms that are best suited to the circumstances.  
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.  
Ideally, the programming language best suited for the task at hand will be selected.