Many programmers use forms of Agile software development where the various stages of formal software development are more integrated together into short cycles that take a few weeks rather than years..  
 Various visual programming languages have also been developed with the intent to resolve readability concerns by adopting non-traditional approaches to code structure and display.  
Programming languages are essential for software development.  
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.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
 Auxiliary tasks accompanying and related to programming include analyzing requirements, testing, debugging (investigating and fixing problems), implementation of build systems, and management of derived artifacts, such as programs' machine code.  
 Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA).  
One approach popular for requirements analysis is Use Case analysis.  
Ideally, the programming language best suited for the task at hand will be selected.  
FORTRAN, the first widely used high-level language to have a functional implementation, came out in 1957, and many other languages were soon developed—in particular, COBOL aimed at commercial data processing, and Lisp for computer research.  
Also, specific user environment and usage history can make it difficult to reproduce the problem.  
However, because an assembly language is little more than a different notation for a machine language, two machines with different instruction sets also have different assembly languages.  
Scripting and breakpointing is also part of this process.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
There exist a lot of different approaches for each of those tasks.