Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process..  
 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.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
The choice of language used is subject to many considerations, such as company policy, suitability to task, availability of third-party packages, or individual preference.  
 Code-breaking algorithms have also existed for centuries.  
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.  
 Different programming languages support different styles of programming (called programming paradigms).  
In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.  
Provided the functions in a library follow the appropriate run-time conventions (e.g., method of passing arguments), then these functions may be written in any other language.  
Integrated development environments (IDEs) aim to integrate all such help.  
  
The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'.  
Use of a static code analysis tool can help detect some possible problems.  
Scripting and breakpointing is also part of this process.  
  
 Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks.  
Programming languages are essential for software development.