Unreadable code often leads to bugs, inefficiencies, and duplicated code..  
 Different programming languages support different styles of programming (called programming paradigms).  
It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages.  
There are many approaches to the Software development process.  
Normally the first step in debugging is to attempt to reproduce the problem.  
 Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA).  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
Programming languages are essential for software development.  
Techniques like Code refactoring can enhance readability.  
In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.  
In the 9th century, the Arab mathematician Al-Kindi described a cryptographic algorithm for deciphering encrypted code, in A Manuscript on Deciphering Cryptographic Messages.  
Many applications use a mix of several languages in their construction and use.  
  
The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'.