Programmable devices have existed for centuries..  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
 Computer programmers are those who write computer software.  
However, readability is more than just programming style.  
Integrated development environments (IDEs) aim to integrate all such help.  
Programmers typically use high-level programming languages that are more easily intelligible to humans than machine code, which is directly executed by the central processing unit.  
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.  
 Allen Downey, in his book How To Think Like A Computer Scientist, writes:  
 Many computer languages provide a mechanism to call functions provided by shared libraries.  
 New languages are generally designed around the syntax of a prior language with new functionality added, (for example C++ adds object-orientation to C, and Java adds memory management and bytecode to C++, but as a result, loses efficiency and the ability for low-level manipulation).  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
  
 Debugging is often done with IDEs. Standalone debuggers like GDB are also used, and these often provide less of a visual environment, usually using a command line.  
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.  
 Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications.