Normally the first step in debugging is to attempt to reproduce the problem..  
 Programmable devices have existed for centuries.  
 Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications.  
Use of a static code analysis tool can help detect some possible problems.  
There are many approaches to the Software development process.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
  
The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'.  
For this purpose, algorithms are classified into orders using so-called Big O notation, which expresses resource use, such as execution time or memory consumption, in terms of the size of an input.  
Many applications use a mix of several languages in their construction and use.  
 Following a consistent programming style often helps readability.  
It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages.  
One approach popular for requirements analysis is Use Case analysis.  
 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).