Computer programmers are those who write computer software..  
Normally the first step in debugging is to attempt to reproduce the problem.  
Use of a static code analysis tool can help detect some possible problems.  
 Programmable devices have existed for centuries.  
 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.  
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.  
In 1206, the Arab engineer Al-Jazari invented a programmable drum machine where a musical mechanical automaton could be made to play different rhythms and drum patterns, via pegs and cams.  
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.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages.  
While these are sometimes considered programming, often the term software development is used for this larger overall process – with the terms programming, implementation, and coding reserved for the writing and editing of code per se.  
In the 9th century, the Arab mathematician Al-Kindi described a cryptographic algorithm for deciphering encrypted code, in A Manuscript on Deciphering Cryptographic Messages.  
 In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form.  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.