There exist a lot of different approaches for each of those tasks..  
 Code-breaking algorithms have also existed for centuries.  
 Computer programmers are those who write computer software.  
Trial-and-error/divide-and-conquer is needed: the programmer will try to remove some parts of the original test case and check if the problem still exists.  
 It is very difficult to determine what are the most popular modern programming languages.  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
Many factors, having little or nothing to do with the ability of the computer to efficiently compile and execute the code, contribute to readability.  
One approach popular for requirements analysis is Use Case analysis.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
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.  
 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).  
 High-level languages made the process of developing a program simpler and more understandable, and less bound to the underlying hardware.  
Later a control panel (plug board) added to his 1906 Type I Tabulator allowed it to be programmed for different jobs, and by the late 1940s, unit record equipment such as the IBM 602 and IBM 604, were programmed by control panels in a similar way, as were the first electronic computers.  
 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.  
However, with the concept of the stored-program computer introduced in 1949, both programs and data were stored and manipulated in the same way in computer memory.