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..  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
One approach popular for requirements analysis is Use Case analysis.  
 Code-breaking algorithms have also existed for centuries.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
 Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA).  
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.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
 Following a consistent programming style often helps readability.  
Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.