Many factors, having little or nothing to do with the ability of the computer to efficiently compile and execute the code, contribute to readability. Scripting and breakpointing is also part of this process. Ideally, the programming language best suited for the task at hand will be selected. Their jobs usually involve: Although programming has been presented in the media as a somewhat mathematical subject, some research shows that good programmers have strong skills in natural human languages, and that learning to code is similar to learning a foreign language. Many applications use a mix of several languages in their construction and use. Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users. It affects the aspects of quality above, including portability, usability and most importantly maintainability. One approach popular for requirements analysis is Use Case analysis. Also, specific user environment and usage history can make it difficult to reproduce the problem. Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation. 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. One approach popular for requirements analysis is Use Case analysis. Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA). 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). Use of a static code analysis tool can help detect some possible problems. It is usually easier to code in "high-level" languages than in "low-level" ones. Methods of measuring programming language popularity include: counting the number of job advertisements that mention the language, the number of books sold and courses teaching the language (this overestimates the importance of newer languages), and estimates of the number of existing lines of code written in the language (this underestimates the number of users of business languages such as COBOL). In the 9th century, the Arab mathematician Al-Kindi described a cryptographic algorithm for deciphering encrypted code, in A Manuscript on Deciphering Cryptographic Messages. Techniques like Code refactoring can enhance readability. This can be a non-trivial task, for example as with parallel processes or some unusual software bugs. Ideally, the programming language best suited for the task at hand will be selected. 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. Some of these factors include: The presentation aspects of this (such as indents, line breaks, color highlighting, and so on) are often handled by the source code editor, but the content aspects reflect the programmer's talent and skills. 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. Techniques like Code refactoring can enhance readability.