Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA). One approach popular for requirements analysis is Use Case analysis. Scripting and breakpointing is also part of this process. The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging). Debugging is often done with IDEs. Standalone debuggers like GDB are also used, and these often provide less of a visual environment, usually using a command line. 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. The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging). Following a consistent programming style often helps readability. Programming languages are essential for software development. 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. Expert programmers are familiar with a variety of well-established algorithms and their respective complexities and use this knowledge to choose algorithms that are best suited to the circumstances. Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process. It is very difficult to determine what are the most popular modern programming languages. Also, specific user environment and usage history can make it difficult to reproduce the problem. 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. This can be a non-trivial task, for example as with parallel processes or some unusual software bugs. Techniques like Code refactoring can enhance readability. It is very difficult to determine what are the most popular modern programming languages. Following a consistent programming style often helps readability. 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). 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. Different programming languages support different styles of programming (called programming paradigms). Integrated development environments (IDEs) aim to integrate all such help. In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.