Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards. Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment. Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages. It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages. 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). The academic field and the engineering practice of computer programming are both largely concerned with discovering and implementing the most efficient algorithms for a given class of problems. 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. 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. Scripting and breakpointing is also part of this process. Integrated development environments (IDEs) aim to integrate all such help. Use of a static code analysis tool can help detect some possible problems. 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 1880s, Herman Hollerith invented the concept of storing data in machine-readable form. Scripting and breakpointing is also part of this process. However, because an assembly language is little more than a different notation for a machine language, two machines with different instruction sets also have different assembly languages. Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users. In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them. There are many approaches to the Software development process. Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users. For example, when a bug in a compiler can make it crash when parsing some large source file, a simplification of the test case that results in only few lines from the original source file can be sufficient to reproduce the same crash. Many applications use a mix of several languages in their construction and use. 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). 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. 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. 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.