The following properties are among the most important: In computer programming, readability refers to the ease with which a human reader can comprehend the purpose, control flow, and operation of source code. 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. Use of a static code analysis tool can help detect some possible problems. Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation. Ideally, the programming language best suited for the task at hand will be selected. 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. The choice of language used is subject to many considerations, such as company policy, suitability to task, availability of third-party packages, or individual preference. Unreadable code often leads to bugs, inefficiencies, and duplicated code. There exist a lot of different approaches for each of those tasks. Readability is important because programmers spend the majority of their time reading, trying to understand, reusing and modifying existing source code, rather than writing new source code. Normally the first step in debugging is to attempt to reproduce the problem. The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging). The choice of language used is subject to many considerations, such as company policy, suitability to task, availability of third-party packages, or individual preference. The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA. Use of a static code analysis tool can help detect some possible problems. For example, COBOL is still strong in corporate data centers often on large mainframe computers, Fortran in engineering applications, scripting languages in Web development, and C in embedded software. The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'. However, Charles Babbage had already written his first program for the Analytical Engine in 1837. 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. However, Charles Babbage had already written his first program for the Analytical Engine in 1837. Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages. After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug. Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation. Readability is important because programmers spend the majority of their time reading, trying to understand, reusing and modifying existing source code, rather than writing new source code.