

In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form. Programmable devices have existed for centuries. 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. There exist a lot of different approaches for each of those tasks. It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages. Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards. Also, specific user environment and usage history can make it difficult to reproduce the problem. It is very difficult to determine what are the most popular modern programming languages. There exist a lot of different approaches for each of those tasks. Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA). In the 9th century, the Arab mathematician Al-Kindi described a cryptographic algorithm for deciphering encrypted code, in A Manuscript on Deciphering Cryptographic Messages. Ideally, the programming language best suited for the task at hand will be selected. It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages. It is very difficult to determine what are the most popular modern programming languages. It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages. 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. By the late 1960s, data storage devices and computer terminals became inexpensive enough that programs could be created by typing directly into the computers. Computer programmers are those who write computer software. They are the building blocks for all software, from the simplest applications to the most sophisticated ones. As early as the 9th century, a programmable music sequencer was invented by the Persian Banu Musa brothers, who described an automated mechanical flute player in the Book of Ingenious Devices. 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. Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users. Use of a static code analysis tool can help detect some possible problems. The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging). Programs were mostly entered using punched cards or paper tape.