

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. 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. 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. 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 first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'. Use of a static code analysis tool can help detect some possible problems. Various visual programming languages have also been developed with the intent to resolve readability concerns by adopting non-traditional approaches to code structure and display. However, readability is more than just programming style. 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. In the 9th century, the Arab mathematician Al-Kindi described a cryptographic algorithm for deciphering encrypted code, in A Manuscript on Deciphering Cryptographic Messages. A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it. However, readability is more than just programming style. Techniques like Code refactoring can enhance readability. However, readability is more than just programming style. Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages. However, readability is more than just programming style. Different programming languages support different styles of programming (called programming paradigms). Computer programmers are those who write computer software. 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. Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks. Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards. Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages. 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. A similar technique used for database design is Entity-Relationship Modeling (ER Modeling). It is usually easier to code in "high-level" languages than in "low-level" ones.