

Later a control panel (plug board) added to his 1906 Type I Tabulator allowed it to be programmed for different jobs, and by the late 1940s, unit record equipment such as the IBM 602 and IBM 604, were programmed by control panels in a similar way, as were the first electronic computers. In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form. After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug. After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug. Whatever the approach to development may be, the final program must satisfy some fundamental properties. Also, specific user environment and usage history can make it difficult to reproduce the problem. Whatever the approach to development may be, the final program must satisfy some fundamental properties. Many applications use a mix of several languages in their construction and use. The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging). There are many approaches to the Software development process. Many applications use a mix of several languages in their construction and use. Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks. Also, specific user environment and usage history can make it difficult to reproduce the problem. A similar technique used for database design is Entity-Relationship Modeling (ER Modeling). 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. Ideally, the programming language best suited for the task at hand will be selected. 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). A similar technique used for database design is Entity-Relationship Modeling (ER Modeling). Many applications use a mix of several languages in their construction and use. 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. Normally the first step in debugging is to attempt to reproduce the problem. Use of a static code analysis tool can help detect some possible problems. Integrated development environments (IDEs) aim to integrate all such help. Normally the first step in debugging is to attempt to reproduce the problem. Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA).