To produce machine code, the source code must either be compiled or transpiled.  
Integrated development environments (IDEs) aim to integrate all such help.  
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.  
Relatedly, software engineering combines engineering techniques and principles with software development.  
The source code of a program is written in one or more languages that are intelligible to programmers, rather than machine code, which is directly executed by the central processing unit.  
Transpiling on the other hand, takes the source-code from a high-level programming language and converts it into bytecode.  
However, while these might be considered part of the programming process, often the term software development is more likely used for this larger overall process – whereas the terms programming, implementation, and coding tend to be focused on the actual writing of code.  
Also, specific user environment and usage history can make it difficult to reproduce the problem.  
Many applications use a mix of several languages in their construction and use.  
In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.  
Normally the first step in debugging is to attempt to reproduce the problem.  
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.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
However, readability is more than just programming style.  
Use of a static code analysis tool can help detect some possible problems.