Use of a static code analysis tool can help detect some possible problems..  
Normally the first step in debugging is to attempt to reproduce the problem.  
Many applications use a mix of several languages in their construction and use.  
 High-level languages made the process of developing a program simpler and more understandable, and less bound to the underlying hardware.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
Scripting and breakpointing is also part of this process.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
However, readability is more than just programming style.  
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.  
Proficient programming usually requires expertise in several different subjects, including knowledge of the application domain, details of programming languages and generic code libraries, specialized algorithms, and formal logic.  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
 Programmable devices have existed for centuries.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
 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.  
There exist a lot of different approaches for each of those tasks.