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..  
 The first computer program is generally dated to 1843, when mathematician Ada Lovelace published an algorithm to calculate a sequence of Bernoulli numbers, intended to be carried out by Charles Babbage's Analytical Engine.  
In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.  
  
Also, specific user environment and usage history can make it difficult to reproduce the problem.  
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.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
 The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging).  
Languages form an approximate spectrum from "low-level" to "high-level"; "low-level" languages are typically more machine-oriented and faster to execute, whereas "high-level" languages are more abstract and easier to use but execute less quickly.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
 Different programming languages support different styles of programming (called programming paradigms).  
 In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
Scripting and breakpointing is also part of this process.