They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
Also, specific user environment and usage history can make it difficult to reproduce the problem.  
Normally the first step in debugging is to attempt to reproduce the problem.  
There exist a lot of different approaches for each of those tasks.  
Use of a static code analysis tool can help detect some possible problems.  
One approach popular for requirements analysis is Use Case analysis.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
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.  
Proficient programming thus usually requires expertise in several different subjects, including knowledge of the application domain, specialized algorithms, and formal logic.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
Many programmers use forms of Agile software development where the various stages of formal software development are more integrated together into short cycles that take a few weeks rather than years.  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
 In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form.