The choice of language used is subject to many considerations, such as company policy, suitability to task, availability of third-party packages, or individual preference.  
Also, specific user environment and usage history can make it difficult to reproduce the problem.  
When debugging the problem in a GUI, the programmer can try to skip some user interaction from the original problem description and check if remaining actions are sufficient for bugs to appear.  
Integrated development environments (IDEs) aim to integrate all such help.  
Ideally, the programming language best suited for the task at hand will be selected.  
 Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications.  
Use of a static code analysis tool can help detect some possible problems.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
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.  
Relatedly, software engineering combines engineering techniques and principles with software development.  
 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.  
When debugging the problem in a GUI, the programmer can try to skip some user interaction from the original problem description and check if remaining actions are sufficient for bugs to appear.  
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.