IMPORTANCE AND ROLE OF DEBUGGING IN COMPETITIVE PROGRAMMING

Competitive Programming is a way of providing solutions to the newly arising problems. It is a competition among many programmers solving the same problem using programming language of their own choice, in a limited time.

While solving a problem, the programmer reads, understands and analyses the problem, then he builds a logic which is implemented in the form of source code, in a particular programming language, which serves as the solution to the problem.
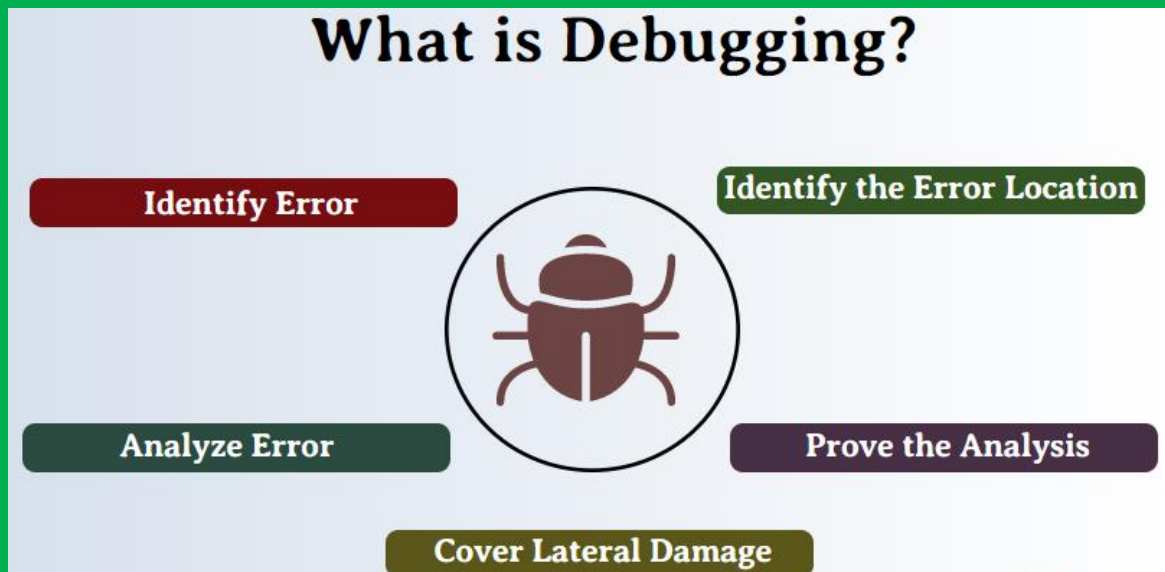

When the source code is written as per the logic, it might contain bugs or errors, that must be properly tested and removed to get correct and optimized solution.

Here comes the debugging. Many programmers mis-interprets competitive Programming as a skill of writing source codes only; they ignore the importance of Debugging.

Writing source codes is relatively easy than finding bugs/errors in the written source codes. One has to go through the complete code to check for errors.

An easy and best approach to debug a code is to make a dry run of the code.

Dry run is a method where a programmer runs and computes the values of the input test cases for the written code in mind and the computed values be recorded using pen-and-paper. These recorded values then compared with the correct values and the block of code is found where the error is suspected. This block of code is analysed and re-written.

One can use the smaller values of test cases for dry run and remove the errors from the code, i.e., debugging of source code. Hence, Debugging plays an important role in Competitive Programming.

—Urvija Rai