

- Consider the following 3 requirements for a system your organization has been tasked with engineering:
 - a) The system shall allow the user to enter a pair of operands (x and y) and shall output the correct result where $f(x,y) = x/y$
 - b) The system shall output the result quickly
 - c) The system shall be easy for the user to use
- Analysis
 - a) Describe 2 proactive actions that your organization has previously taken which give you confidence that the organization will produce a system which will satisfy these requirements

A good proactive assurance need to make defects measurable. Thus, one action is that: making mathematical test to see if the output is matched with requirement $f(x,y) = x/y$, one of example is 10000 times automatically input simulation. Another is to make system satisfy with b) and c), let's set the threshold of result output 0.1s, and threshold of user input is 1s, combining with first automatically test, we can have confidence if system is covered by these 2 proactive actions.

- b) Rewrite each requirement to meet the standards of effectiveness described in lecture

(b) The system must output the result less than or equal to 0.1s after user input.

(c) The system must let user complete input less than 1s.

- c) Develop a test plan which your team will use to (reactively) verify that the system satisfies the rewritten requirements

Making automatically unit test to see if system satisfies the requirements.