

TUTORIAL DISCUSSION (2)

1. It is claimed that the expanded definition of SQA supports those who are interested in increasing client satisfaction.
 - a) Do you agree with this claim?
 - b) If yes, provide arguments to substantiate your position

2. The software requirement document for the tender for development of “Super-lab,” a software system for managing a hospital laboratory, consists of chapters according to the required quality factors as follows: correctness, reliability, efficiency, integrity, usability, maintainability, flexibility, testability, portability, reusability and interoperability.

In the following table you will find sections taken from the mentioned requirements document. For each section, fill in the name of the factor that best fits the requirement (chose only one factor per requirements section).

No.	Section taken from the software requirement document	The requirements factor
1	The probability that the “Super-lab” software system will be found in a state of failure during peak hours (9 am to 4 pm) is required to be below 0.5%.	
2	The “Super-lab” software system will enable direct transfer of laboratory results to those files of hospitalized patients managed by the “MD-File” software package.	
3	The “Super-lab” software system will include a module that prepares a detailed report of the patient’s laboratory test results during his current hospitalization. (This report will serve as an appendix to the family physician’s file.) The time required to obtain this printed report will be less than 60 seconds; the level of accuracy and completeness will be at least 99%.	
4	The “Super-lab” software to be developed for hospital laboratory use may be adapted later for private laboratory use.	
5	The training of a laboratory technician, requiring no more than 3 days, will enable the technician to reach level C of “Super-lab” software usage. This means that he or she will be able to manage reception of 20 patients per hour.	
6	The “Super-lab” software system will record a detailed users’ log. In addition, the system will report attempts by unauthorized persons to	

No.	Section taken from the software requirement document	The requirements factor
	obtain medical information from the laboratory test results database. The report will include the following information: the network identification of the applying terminal, the system code of the employee who requested that information, the day and time of attempt and the type of attempt.	
7	The “Super-lab” subsystem that deals with billing patients for their tests may be eventually used as a subsystem in the “Physiotherapy Center” software package.	
8	The “Super-lab” software system will process all the monthly reports for the hospital departments’ management, the hospital management, and the hospital controller according to Appendix D of the development contract.	
9	The software system should be able to serve 12 workstations and 8 automatic testing machines with a single model AS20 server and a CS25 communication server that will be able to serve 25 communication lines. This hardware system should conform to all availability requirements as listed in Appendix C.	
10	The “Super-lab” software package developed for the Linux operating system should be compatible for applications in a Windows NT environment.	

3. “Quantitative measures are usually preferred to qualitative measures when choosing quality goals because they provide the developer with more objective assessments of software performance during the development process and system testing. However, one type of goal is not totally equivalent to the other.”

- a) How are quantitative goals applied during the development process?
- b) Explain in what way quantitative goals enable more objective evaluation of performance when compared with qualitative goals.

4. Some people claim that testability and verifiability are actually different names for the same factor.

- a) Do you agree?
- b) If not, could you explain why?