LO4

In the testing process, there was insufficient time to test many of the attributes of the software which led to inadequate integration testing. As a result, this means that there is an inaccurate assessment of how software components integrate with one another leading to potential performance degradation and compatibility issues. In addition, there was also a lack of automated testing which may lead to inconsistencies with the system as well as manual errors.

The testing carries out does not provide full coverage of the requirement as opposed to the target levels due to time restraints. Fault-based testing where I checked for buffer overflow handling through testing on large inputs would be a test obligation that my system surpasses. In addition, the testing carried out on the system must mimic the real-world environment that the system will be working in, and since this testing process is expensive it is unrealistic to perform on my own, whereas in a large company, this would be the target level.

Designing a test suite from the system specification and following on with a structural criterion that provides coverage of all the branches in the test suite would allow me to locate missed logic in the program. However, test coverage cannot be replaced with the means to be thorough in the test suite as good test cases are much harder to design. Furthermore, replicating a real-world environment would allow for the target levels to be achieved, through costs on performance testing and automation, and hiring multiple testers (black box and white box testing as well as quality assurance testers). This is because that of level of testing would provide a high level of confidence in the system working and a better user experience when it is produced. Automation would also allow for the system to be more easily monitored and therefore maintained if needed.

References:

* Lecture on Test Case Selection and Adequacy Criteria, Updated Stuart Anderson (c) 2007 Mauro Pezzè & Michal Young