

# Sample Testing Evidence

- *This is a skeleton example of the sort of evidence you could use to support LO3. It has a bit of commentary to explain what is going on – you don't have to explain the process.*
- *The purpose of this sample is to give you an idea of the sort of evidence you need to produce.*
- *The evidence does not need to be presented this format:*
  - *it could be spread across various files in a repository.*
  - *The evidence could be some subsection of another document produced for the project.*
  - *There is no prescriptive format you need to follow.*
  - *The assessment criteria for LO 3 want an indication that you have developed some test specifications and have done some testing on your code. It may be that at the moment you have no code, however you can define test specifications derived from the requirements and you can think about decomposing specification into independently testable features and think about how the system might decompose into different components.*

This LO is easier to report on than LO2 so this is briefer than the LO 2 guidance. Here is the LO and the sub criteria. The original narrative is in *grey italic*.

3. *Apply a wide variety of testing techniques and compute test coverage and yield according to a variety of criteria.* This section assesses how well the planned testing has gone in practice. Were all the planned techniques used and how well they were implemented.
  - 3.1. **Range of techniques:** *The portfolio should outline how well the implemented tests compare with the planned testing and briefly describe the chosen techniques and why they are appropriate.* So you need evidence of looking at some techniques (you will see systematic functional, structural and model-based approaches at the least and may want to look at others. You should also think about different levels of test: unit, integration, system and how to approach these. You might also consider measurable attributes and what data, scaffolding and instrumentation you need to be able to carry out the test. The portfolio should be a short summary of these issues and should point to other parts of the project folder for evidence. Also remember you will not have time to do lots of testing so you can briefly summarise what you think would be necessary to test all your requirements properly in the portfolio.
  - 3.2. **Evaluation criteria for the adequacy of the testing:** *The portfolio should contain a brief discussion motivating the choice of evaluation criteria used for each testing method. This should relate to the requirement and discuss how the chosen techniques help build confidence the software meets the requirements.* As we continue with the course you will see evaluation criteria dealt with in more detail. For the moment you might want to think about ways in which the approaches you have chosen are optimistic, pessimistic or involve simplification and try to identify ways in which issues in the code might evade your chosen test approaches.

- 3.3. Results of testing:** *The portfolio should also present a brief overview of the results of testing that points to more detailed work. This should communicate the results effectively and you should consider how best to communicate the results of testing.* You should keep a log of the testing you do. The issues you uncover in the code and how you have resolved the issues. This section in the portfolio can be quite short and should just summarise the log of the test results pointing out where you think you have succeeded.
- 3.4. Evaluation of the results:** *The final element in the portfolio should cover the application of the chosen evaluation techniques and this section of the portfolio should effectively communicate the results of the evaluation.* In the way that section 3.3 reports on the results of testing designed in 3.1, section 3.4 reports on the results of the evaluation considered in section 3.2. This section should point to some documentation of the results of the evaluation activities and the portfolio should summarise the extent to which the evaluation improves confidence in the testing.