

# CITS5501 Software Testing and Quality Assurance

## Semester 1, 2022

### Workshop 11 (week 12) – Integration and system tests

#### Reading

It is strongly suggested you complete the recommended readings for weeks 1–11 *before* attempting this lab/workshop.

Discuss what sort of testing would be appropriate in the following scenarios. In each case discuss: what preparation or setup might be required? what test values might you use? And what expected results?

1. You work for a US company with an online store-front. At particular times of year (for instance, the Friday after Thanksgiving, and the shopping days just before Christmas), or when a sale is announced, traffic to the site may spike unpredictably. The company would like to ensure that in these cases, even if not all customers can be catered too, the system still degrades gracefully (e.g. displays explanatory messages to customers rather than crashing; possibly offers reduced but still accessible functionality).
2. For the same company as in question (1) – the company wants to ensure that during normal loads, the website is sufficiently responsive. (That is: when customers interact with the website by clicking a button etc., the site shouldn't be laggy.)
3. Your team has been hired by a medical practice. Knowing that professional firms are often targetted by ransomware attacks, the practice manager wants to be sure that all practice data is being properly backed up, and that if an attack does occur, the practice can restore the data and resume normal business without excessive delays.
4. At your university, it is possible to submit the code for programming assignments via a web interface and receive feedback on whether the code compiles and some initial tests on the code pass. One of your lecturers wants you to make sure that attackers can't use the system for nefarious purposes by providing assignment files with malicious content.