

# Full Stack Development

## Lab Design 3

### Robustness Analysis

#### 1. Lab objectives

In this lab we will do a robustness analysis on the specification and proposed design.

#### 2. The Analysis

One of the ways to start a robustness analysis is to look at the path an input takes through the system until its processing is completed. At each step of the process you should ask:

1. How are the objects created?
  - a. What does it mean for an object to be well formed and valid? What should we do if an object fails either of these?
  - b. What is the lifecycle of an object?
2. Are there object repositories required?
3. What are the constraints on the relationships between objects?
4. Are there logging or audit requirements?
5. Are there persistence requirements?

You also need to consider the non-functional requirements like

1. Throughput – how many objects would have to be processed over a period of time
2. Security
3. How to respond to failure of an object or the system
4. Volume of processing or number of objects in use at a give time.
5. Ease of modification – how likely is it that the object would have multiple versions? How easy would it be to support multiple versions or make changes?

Anything else?

### End Lab