

**Below is a list of “requirements” taken from several sources, some fictional, some real. What type of requirement is each ?**

(Notes :

- ◆ To add a little more trickiness, some statements are not requirements at all – they simply **describe the problem domain**
- ◆ There may be a fine line between a (functional) requirement and the function that meets that requirement – try and spot the iffy ones
- ◆ The nature of the relevant systems won’t always be obvious – if in doubt, please ask. (This is easier in “real life” as you would have more info.)
- ◆ Some are just so poorly written it is hard to tell (but there’s a lesson there as well !)

To assist you, here is a copy of the “SCRU” table:-

PD description	Requirement					
	Design constraint	Functional				
		“Ordinary”	Performance			
			S	C	R	U
		pe e d	pa c i t y	el I b i l i t y	ab i l i t y	

1. When the user selects the ‘modify boat details’ option the system will prompt them to enter the boat’s name.
2. The system must be implemented in three main modules, one for each of the main functions; detection, recording and statistical analysis
3. The lift position sensors are switches which close (make circuit) when the lift is within 10 cms (vertically) of the sensor position.

4. For each boat, the elapsed time is defined as the difference, in seconds, between the race start time and the boat's finish time.
5. The lift should not be stopped from fast mode but should always be switched to slow mode for at least 1 second before stopping.
6. A lift's direction may only be reversed when it is stopped at a floor.
7. The system must be developed using the Yourdon Systems Method.
8. The maximum number of lifts is 4, the minimum 1.
9. The wheels rotate when the aircraft is moving and is on the ground.
10. The Observe schedule function will detect a commodity update by TSMN within 250 milliseconds.
11. Commodity\_information  
 ::= /\* commodity price information that is formatted by TSMN and  
 updated throughout the day \*/  
 ::= <sup>1</sup>{ Commodity\_ID + Current\_Price + High\_Value + Low\_Value },  
 Number\_of\_Commodities;
12. The user interface will consist of two screens.
13. The maximum input file size will be 2 million characters and files of this size should be converted in no more than 60 seconds.
14. The examination entry screen will provide facilities for editing and deleting existing records and will allow the addition of new Subjects for the particular Series entry.
15. A release number consists of 4 numbers, each of which can be up to 3 digits long and is separated from the next by a full stop.
16. Maintainability shall be a major goal of the development of the Striker system.
17. Bug Log assigns each bug a unique ID when the bug is found.
18. The software must be smaller than the existing NCR7116 cash dispenser system.
19. Confirmation of each action taken, input accepted, or error condition will be displayed after each input.
20. Tabber will be operated by the existing security personnel who have little or no previous computer system operating experience. After 1 hour's training, a typical operator should be able to perform the test suite (see section ##) with an average user response time of less than 5 seconds and an error rate of less than 1 in 10.

21. AUTOTELLER will be out of operation for servicing no more than 0.001% of its yearly operating time.
22. With the stop delay correctly configured (as detailed below) the lift should stop within +/- 1.5 cm of the floor being serviced.
23. The new system will interface to the boiler via a serial port with the following pin assignments : 0 = flame out detector; 1 = low pressure gas sensor; 2 – 5 = combustion temperature sensor (hi-bit to low bit); 6 – 9 = flue temperature sensor (hi-bit to low bit).
24. The interface to the boiler should be via a separate sub-system so that it can be readily re-programmed for different port configurations

**The following statements (in particular!) are not well phrased – try and spot the problem(s), make an educated guess about what they meant and re-write them more clearly. (Most are taken from “real-life” documents!)**

25. Currently, no two users have the same name but some might in the future.
26. Maximum number of records per table is restricted to Disk size and/or 1 Gigabyte.
27. TELLERFAST will have been thoroughly tested at time of delivery so that computational errors will not occur.
28. There are currently 1500 subscribers but the new system should be able to handle 10 times that number.
29. In order to optimise cash flow, it is important that invoices are printed and despatched within 2 days of the meter readings being entered.
30. TELLERFAST will be written in a modular structure to make modification as easy as possible.
31. As soon as the user enters their name, the system will retrieve their encrypted password from the password file so that it is available by the time they have entered their password.
32. Every 10 seconds, the entire system should be examined and the elevators re-scheduled accordingly.