

# Programming Env

Team Project Realization (Agile)



# Outlines

- Introduction
- Introduction to Agile
- Scrum Methodology



# I. Introduction

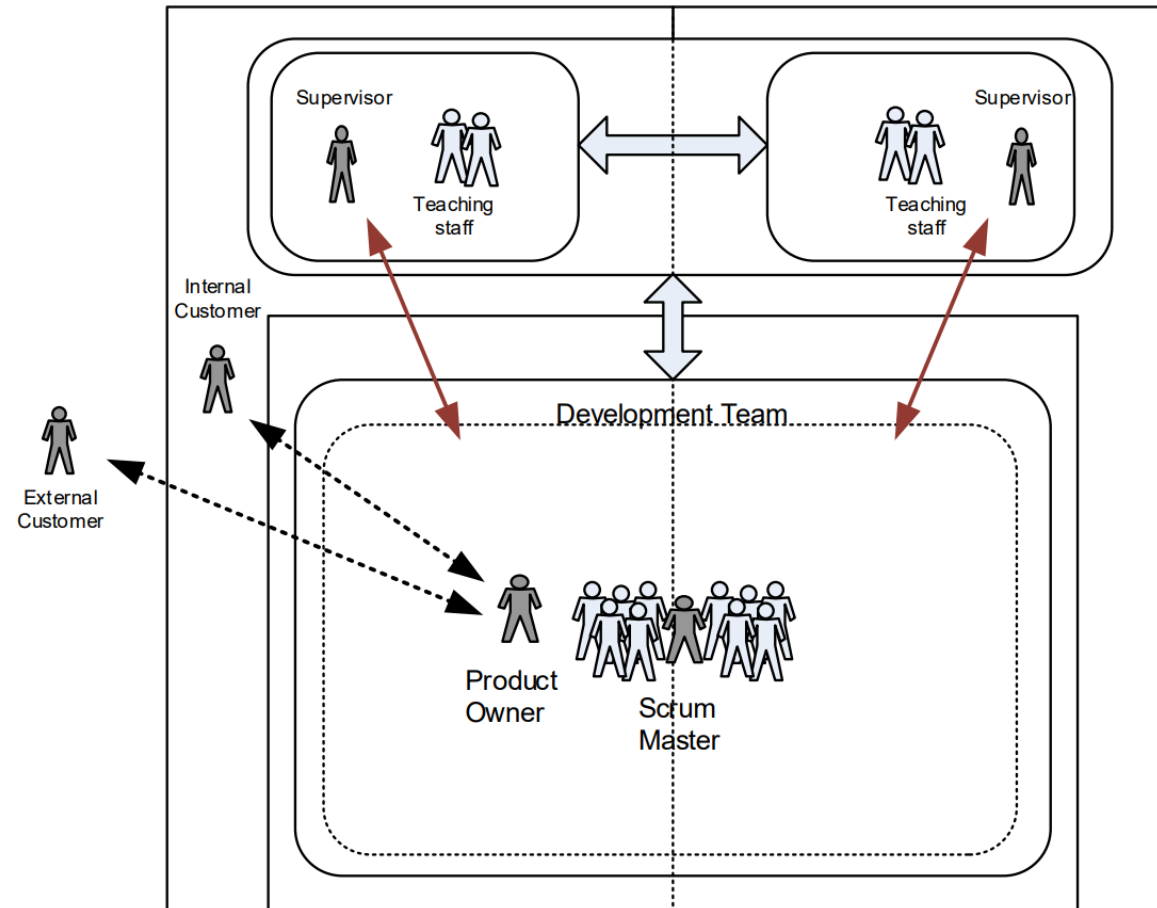
- **Project:** List of tasks and activities that are carefully planned to achieve a particular aim.
- **Team:** come together as a group to achieve a common goal.
- ➔ **Team Project:** a temporary team created to deliver a project.

# Introduction to Agile

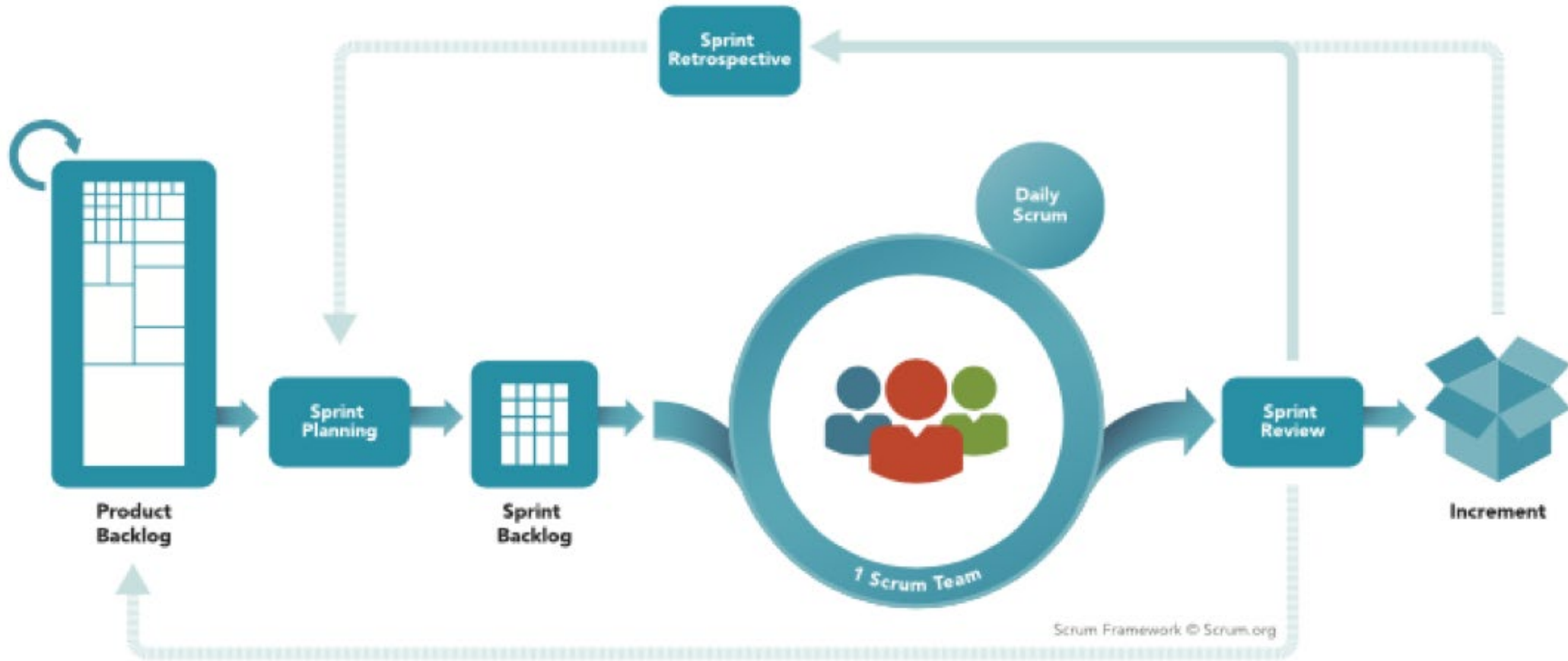
- A family of development methods in software development, which began with the **spiral model** (1985), that is, a many times repeated, short, but **full development cycle**.
- The next stage in the development of Agile was the **Scrum methodology** based on **30-day cycles**, self-organization of development teams, and daily meetings (**1990-1999**).
- Another type of self-adapting iterative development process was proposed by the authors of RAD (**Rapid Application Development**) in **1994** is XP (**eXtreme Programming**) methodology by Kent Beck is referred to the end of **1996**; it is **a variant of iterative** development process with hypertrophied testing and code transfer between team members (**shared code ownership**).
- And, finally, the last of the iterative methods included in the Agile is **Feature Driven Development (FDD)** proposed in **1997** and immediately saved a hopeless project.

# Scrum Methodology

- A methodology of project management for agile software development. The authors are [Jeff Sutherland](#) and [Ken Schwaber](#). This methodology is based on the analysis of practices of Japanese industrial companies and daily meetings of the [Borland company](#).



# SCRUM Framework



# Scrum Terminologies

- **Product backlog:** a backlog of work to be completed (high level, valuable). Product backlog is made up of prioritized User Stories.
- **User Story:** statement of user's need and/or business value.
- **Sprint:** a 1 to 4 weeks cycle of development of scrum team to deliver fully tested, production ready software.
- **Sprint Planning:** an event in Scrum that scrum team takes the most prioritized stories from Product backlog and work out.
- **Sprint Backlog:** list of user stories in a sprint with status and assignments (usually in a form of "Information Radiator" or "Big board").



# Scrum Terminologies

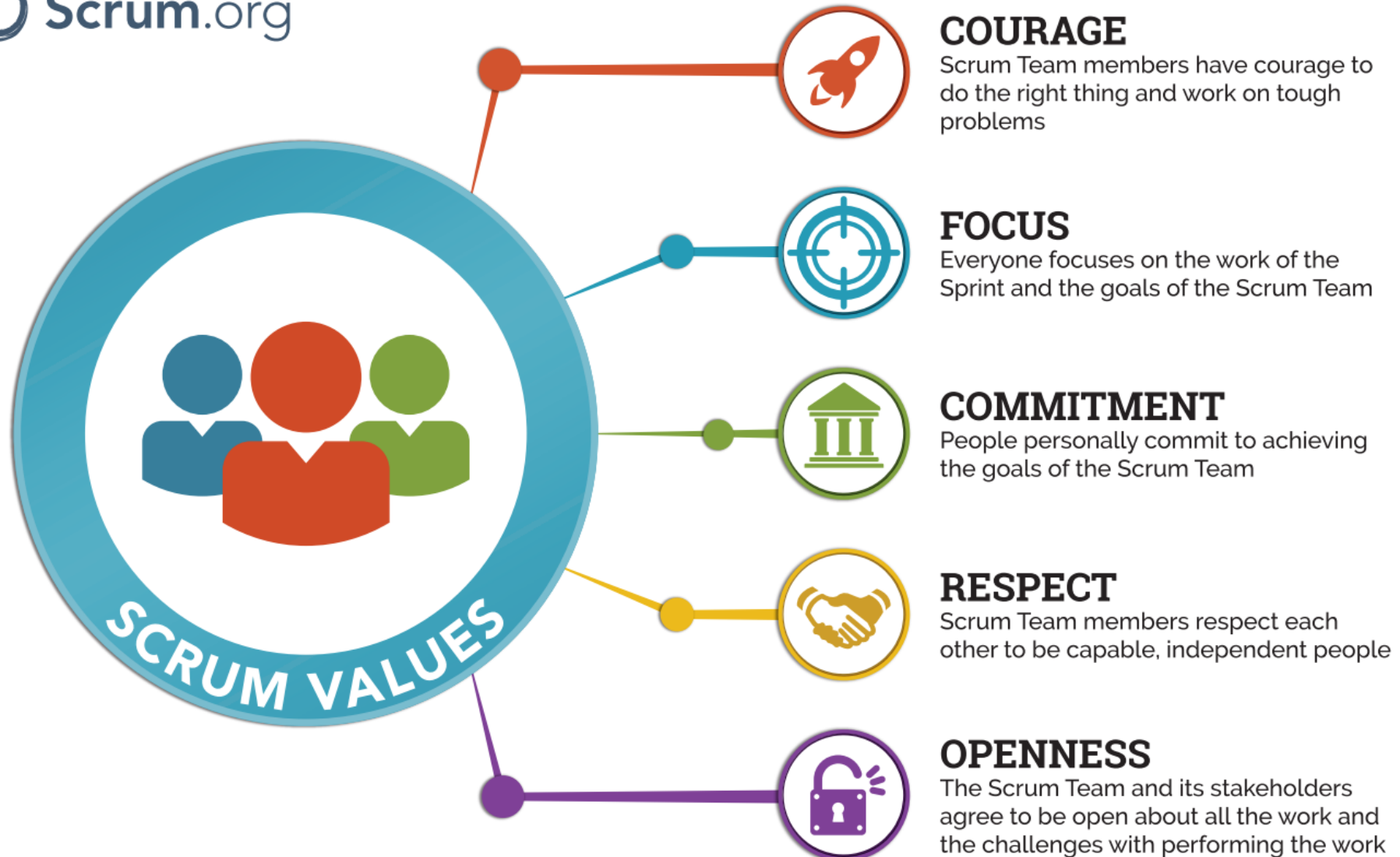
- **Daily Scrum:** a short event (5-15 minutes) during which the team share information on their progress and motivate focus on product increment to be delivered at the end of the Sprint.
- **Sprint Review:** an event in Scrum that is a demonstration of working software developed during the Sprint fulfilling Stories that are acknowledged as “Done” by PO.
- **Sprint Retrospective:** an opportunity for the Scrum Team to inspect itself and create a plan for improvements to be enacted during the next Sprint.

## A Typical Sprint Retrospective Model

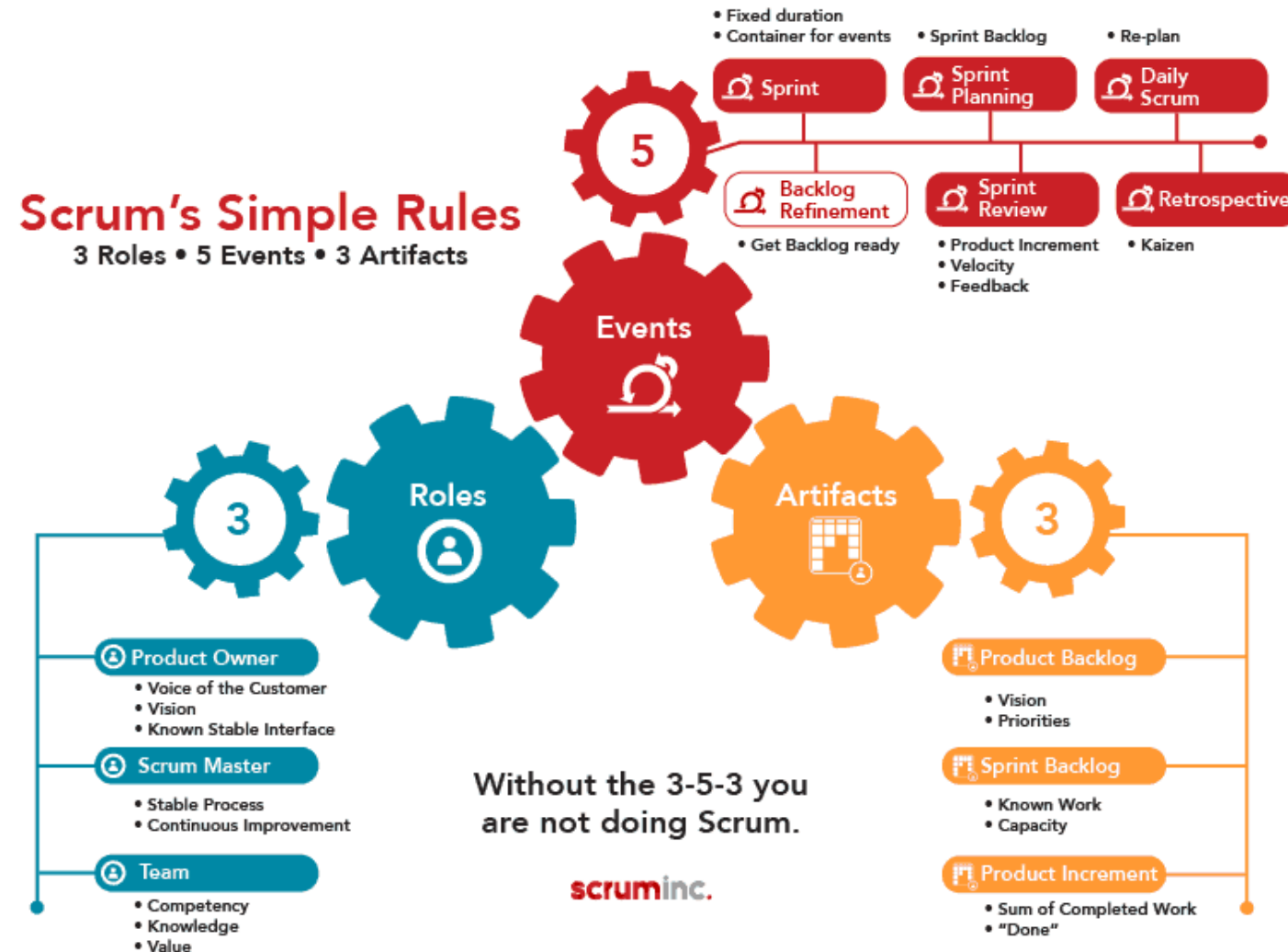




# Scrum Values



# Scrum's Rules



# User Stories

- Sample User Story form 1

- Title: ADJUST QUOTE PARAMETERS
- Statement: **As a** PET OWNER, **I want** to adjust excesses and levels of cover, (**so that** I can get a quote that I think is good value for money).

Title	Size	Value	MoSCoW
As a...			
I want...			
So that...			

**Must Have**  
**Should Have**  
**Could Have**  
**Won't Have this time**

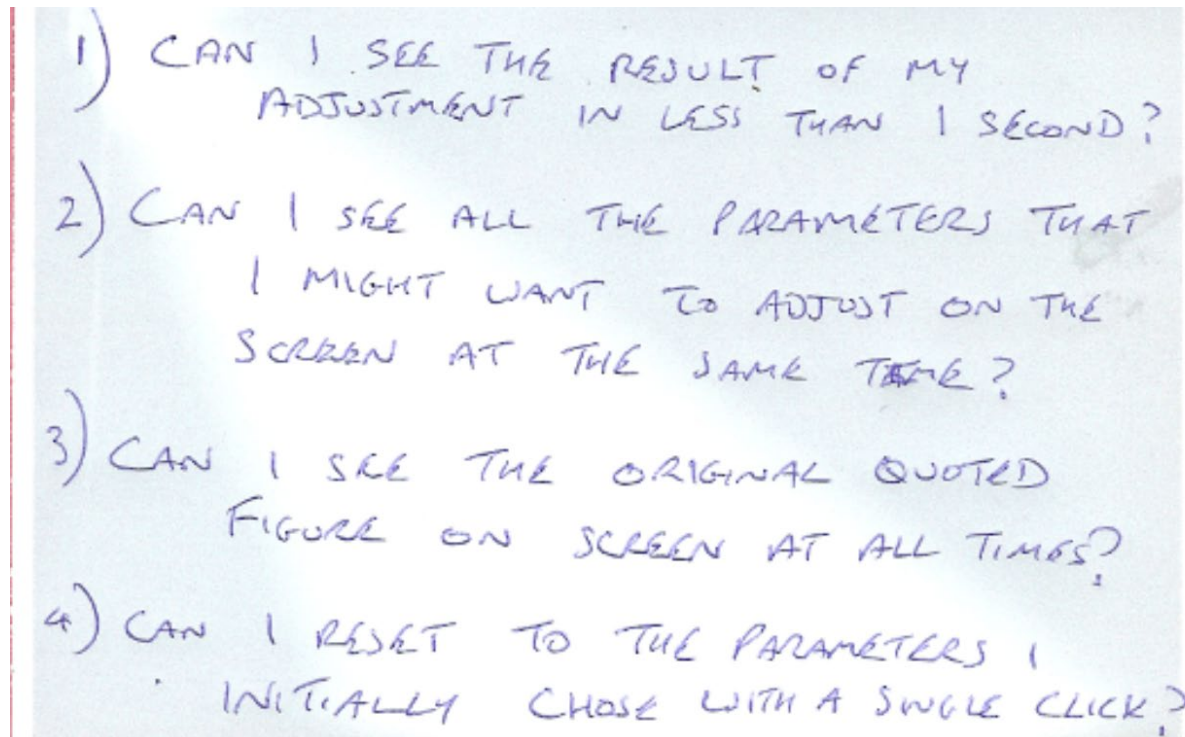
# User Stories

- Sample User Story form 2
  - Title: ADJUST QUOTE PARAMETERS
  - Statement: **The** PET OWNER **can** adjust excesses and levels of cover (**To** get a quote that I think is good value for money).

Title		Size	Value
The...			
MoSCoW	Must, Should, Could or Won't have		
To...			

# User Stories

- Definition of 'Done'
  - A task is done when it satisfies test conditions that are usually written on the back of the task.

A photograph of a piece of paper with handwritten test conditions in blue ink. The conditions are numbered 1 through 4. The paper is slightly wrinkled and has a light blue background.

- 1) CAN I SEE THE RESULT OF MY ADJUSTMENT IN LESS THAN 1 SECOND?
- 2) CAN I SEE ALL THE PARAMETERS THAT I MIGHT WANT TO ADJUST ON THE SCREEN AT THE SAME TIME?
- 3) CAN I SEE THE ORIGINAL QUOTED FIGURE ON SCREEN AT ALL TIMES?
- 4) CAN I RESET TO THE PARAMETERS I INITIALLY CHOSE WITH A SINGLE CLICK?

# Project “School Inventory”

- User stories

1. *As an inventory manager, I want to manage suppliers of products so that I can contact them in case of product defects and restocks.*
2. *As an inventory manager, I want to add products into stock so that I can increase number of products in stock.*
3. *As an inventory manager, I want to stockout the products so that I can give them to staffs to use.*
4. *As an inventory manager, I want to see up-to-date report of current stock so that I can report it to management board.*
5. *As a staff, I want to request some products from stock to use for daily operations. (such as whiteboard markers, erasers, desks, office chairs, ...)*
6. *As an inventory manager, I need to authenticate to use the system so that I am sure that no one other than me can manage the stock.*
7. *As a user, I should be able to manage my own profile so that I can update my password, profile image, and so on.*
8. *As an admin, I should be able to manage system users.*

# User story 1

Title <i>Supplier management</i>		Size <i>Epic</i>	Value <i>10</i>	MoSCoW <i>Must</i>
As a...	<i>Inventory manager</i>			
I want...	<i>To manage suppliers of products</i>			
So that...	<i>I can contact them in case of product defects and restocks.</i>			

- Sizes:
  - a Task < XS
  - XS = 1
  - S = 2
  - M = 3
  - L = 5
  - XL = 8
  - Epic > XL

# User story 2, 3, ...

Title <i>Add products</i>		Size <i>M</i>	Value <i>3</i>	MoSCoW <i>Must</i>
As a...	<i>Inventory manager</i>			
I want...	<i>Add products into stock</i>			
So that...	<i>I can increase number of products in stock.</i>			

Title <i>Stockout the products</i>		Size <i>L</i>	Value <i>5</i>	MoSCoW <i>Must</i>
As a...	<i>Inventory manager</i>			
I want...	<i>Stockout the products</i>			
So that...	<i>I can give them to staffs to use.</i>			