Section 1 - Introduction and Agile and Scrum Overview

Agile Manifesto

1. Frustration of how things were managed in the software industry.
2. When a development took 3 years to develop technology, requirements or something else could have been changed during the time period.
3. **Individuals and interactions** over processes and tools
4. **Working software** over comprehensive documentation
5. **Customer collaboration** over contract negotiations
6. **Responding to change** over following a plan

12 Principles

1. Customer satisfaction through early and continuous software delivery
2. Accommodate changing requirements throughout the development process
3. Frequent delivery of working software
4. Collaboration between the business stakeholders and developers throughout the project
5. Support, trust and motivate the people involved in.
6. Enable face-to-face interactions
7. Working software is the primary measure of progress
8. Agile processes to support a consistent development pace.
9. Attention to technical detail and design enhances agility
10. Simplicity - the art of maximizing the amount of work not done - is essential
11. Self-organizing teams encourage great architectures, requirements and designs
12. Regular reflections on how to become more effective.

Scrum

1. Scrum is an agile framework for developing, delivering and sustaining complex products
2. For software development but its so popular it is used for other developments not just software
3. Heavily focused on continuous improvement of: product, team, working environment

Scrum Team

1. Members:
   1. Product Owner
   2. Development Team
   3. Scrum Master
2. Cross functional (from different areas of the organization)
3. Self-managed working together with autonomy and no so directed
4. Designed for flexibility, creativity and productivity
5. To deliver incremental iterations (little and often)
6. Maximize opportunities
7. Get and act on feedback
8. Release useful iterations to get the benefit early

Note: It is important to release consistent iterations so we can get feedback from the customer and act early rather than at the end of the project.

Scrum

1. Iterative development. You don't plan each step from day 1.
2. Component teams. (maks 10 people)
3. Product owner: maximizing the value of the product.
   1. Manages the product backlog
4. Scrum master:
   1. To help the team to work better in the scrum framework
   2. Remove impediments to progress,
   3. Help the organization use and embed Scrum and Agile.
5. Developers:
   1. Actually do the work in increments
6. At the end of every spğritn there will be a **review**: Chance for all the stakeholders to have a look at the work that was done in the sprint, rev,iew it and think about what next goal is going to be.
7. **Sprint retrospective**: Lessons learned
   1. Discuss about process and quality.
8. Sprint planning:
   1. At the beginning of the sprint
   2. Team get together to plan out what they are going to do in the sprint, pick a sprint goal and pick some work from the product backlog.
   3. Smaller backlog is sprint backlog (the tasks for the sprint) (todo – in progress – done)
9. The daily scrum:
   1. Every day 15 minute
   2. Will have a look at the progress and see if they are still on the track to meet the sprints goal.

The scrum values

1. Courage
   1. Team should have the courage to do the right thing and work on tough problems
   2. Examples of tough problems
      1. Scrum team: sticking to the scrum framework
      2. Product owner: able to decline request from stakeholders
      3. Scrum master: making sure that the scrum framework is adhere to y*ou know it when you see it.*
2. Focus
   1. Everyone focuses on the work of the sprint and the goals of the scrum team
   2. Example
      1. Focus on the sprint goal
      2. Focus on the product goal
      3. Limit multitasking
      4. Focus on the scrum artifacts
3. Commitment
   1. People personally commit to achieving the goals of the scrum team
   2. Commitment to the things we are focusing on:
      1. Sprint backlog has a commitment of the sprint goal
      2. Increment has a commitment of the definition of done
      3. Product backlog has a commitment of the product goal
   3. You should be committed to the team, the work you are doing, the goals you’ve set, the product and the scrum framework.
4. Respect
   1. Scrum team members respect each other to be capable, independent people
   2. The entire organization must respect the Product Owner’s decision.
5. Openness
   1. The scrum team and its stakeholders agree to be open about the work and the challenges with performing the work.
   2. Links into transparency
      1. Good communication
      2. Make the work items visible
      3. Don't try hide problems, issues or complications
   3. This reflects honesty.

Product Owner

Needs do understand:

1. Why the product is being built
2. The problems it aims to solve
3. Its target audience

They also need to understand the teams capabilities and take stakeholders needs and new requirements accordingly. (bottle neck of work – when team can do 6 stories but stakeholders want 10 stories)

Agile strategies to avoid bottle neck problem and not overwhelm the team:

1. Velocity tracking
2. Burndown charts
3. Limit WIP

Consider the capacity of the team in the next period.

It's the product owners' job to choose the most valuable stories that are picked.

For a task there is a value and size. Not correlated to each other. (Small feature can have a big value)

Product backlog refinement led by the product owner

1. Refine estimates
2. Split user stories
3. Acceptance criteria

Trade offs between:

1. Build the thing right (developers focus on this one)
2. Build it fast (scrum master focuses on this one)
3. Build the right thing (product owners focus more on this one)