

**DUE 14TH before 7pm so santiago can turn in**

**Scrum.pdf:**

Eric Truong Pages 1-3

Enoch Hsu Pages 4-5

Matthew petruescu 6-9

Santiago Bermudez 10-13

**Scrum-Guide\_US.pdf:**

Dane Coleman 1-5

Chris Long 6.5-10 (exclude scrum master part)

Tyler Ito 11-16

Ramo - Since everything is full, summarize the most important concepts from both pdfs? Or just one, choose what you think is important to summarize.

## **SUMMARIES:**

**Scrum.pdf:**

**Eric Truong pages 1-3(Summary)**

### **Introduction**

-Scrum is a type of agile method. It is a process framework which means it is more adaptable to the needs and preferences of different groups.

-Scrum makes adding ideas from other agile methods easier. Ideas behind Scrum goes back to an article in the Harvard Business Review which is now called concurrent product development.

### **Scrum Overview**

-Scrum specifies a high level process consisting of activities which create and modify certain artifacts.

-The work is divided among the developers playing certain roles

### **Process**

-Process contains the activities and artifacts divided into parts.

-The process begins with creating an initial product backlog which has specifications for a product.

-During planning, subsets of the product backlog are selected for implementation, tasks needed to be done are identified, and effort needed to do them is estimated. All of this forms the sprint backlog.

-Items in a sprint backlog are implemented during sprint execution, which should result into a potentially shippable product.

-At the end of the sprint a sprint review shows off the new product features to stakeholders.

-The Sprint Retrospective gives the team a chance to look back and decide how to do the next sprint better.

-This whole cycle is called a sprint, and it should repeat for a next sprint.

-Since this cycle repeats, scrum is an iterative process and an incremental process.

## Roles

-A scrum product has a development team consisting of people with certain roles

**Product Owner(PO):** Decides what needs to be done and the order they should be done in. They are in charge in the composition of the product and represents customers/users to the other members in the development team. Collaborates with the scrum master and team members so that the right features appear in the product in the correct order. The PO is pivotal mediator between the team and the stakeholders. The responsibility is largely in the control of the product backlog.

**Scrum Master(SM):** Responsible for guiding the team to follow the Scrum development process. Helps everyone embrace the Scrum values, principles, and practices, and makes sure they use them properly. They are a facilitator and a coach. They help remove anything impeding the team and protects the team from any interference from outside the team.

**Team Members:** Decides how to build the product and the ones actually building it. They need the necessary skills to build the product. They are a crossfunctional team. They organize themselves on how to get the job done. Everyone works on everything to maximize productivity and build new skills.

## Artifacts

-Three main artifacts in Scrum: Product backlog, Spring Backlogs, and Shippable Product

**Product Backlog** - prioritized list of not yet implemented product features. The elements in this are the product backlog items(PBIs), each is a feature or function of the product, a change or fix, or a technical improvement. The PO is responsible for the product backlog and PBIs are based on the business value of each feature.

**Sprint Backlog** - A collection of PBIs, the tasks needed to complete them, and the estimates of how much effort is needed to complete a task. A PO and the team choose items from the backlog to be included in a sprint during sprint planning. The backlog guides the team of its work during execution.

**Potentially Shippable Product** - The goal of every sprint is to produce a potentially shippable product, one that can be used by customers. They are not deployed but could be deployed. A PBI should only be included in a product increment when it is actually done, meaning designed, built, tested, and documented. PBIs do not need to be finished in a sprint because it can go back into the product backlog.

## Activities

-Activities consists of the steps in the process as well as a continuous background grooming activity.

-A sprint is a product development interaction whose goal is to add something of value to a product for the customer or user.

-Once product backlog is created, the team is sprinting continuously. When one sprint ends, another sprint begins.

-Sprints have four parts: planning, execution, reviews, and retrospectives.

**Product Backlog Creation** - Product backlog is a list of high level features based on products descriptions the PO has available. There could be a written vision statement the PO

can use for guidance. The PO discusses the project with managers sponsoring the product, salespeople, potential customers. The product backlog does not need a lot of det

### Enoch Hsu 4-5 (Summary)

- Grooming**—PBIs are constantly being added to and deleted from the product backlog, and also modified, refined, and reprioritized in the product backlog. The PO grooms the product backlog more or less continuously, and typically schedules meetings with the team members during sprints to get help with this task
- Sprint Planning**—Sprints begin with sprint planning, during which the PO, SM, and other team members select PBIs from the product backlog to accomplish in a sprint
- Sprint goal**—the main thing to accomplish in the sprint.
- Tasks and estimates, along with the PBIs, comprise the **sprint backlog**
- Sprint Execution**—After sprint planning, tasks are performed and the PBIs implemented.
- Sprint Review**—At the end of a sprint, a sprint review occurs. Serves to bring stakeholders up-to-date on the state of development, and to provide feedback to the team about the product and its features and characteristics.
- Sprint Retrospective**—After the sprint review, the team conducts a sprint retrospective during which they discuss what went well, what did not, and how the next sprint can be done better. Once the retrospective is done, the sprint is complete and a new one begins.

### Managing the Product Backlog

- Product backlog**: prioritized collection of product backlog items, or PBIs. Each PBI should consist of (a) a specification, (b) a priority, (c) an estimate of effort, and (d) acceptance criteria.
- PBI specifications can take any form; essential that PBIs be expressible at different levels of abstraction
- In general, a product backlog should contain enough refined PBIs to support two to three sprints, and the remaining PBIs should be more abstract.
- User story**: Most popular form of specifying product features in Scrum. A user story is a description of a product feature or characteristic
- Goal**: what the user wants to accomplish and the **benefit** explains why
- Epics**: largest, most abstract user stories, describes product functions that would take months or entire releases to produce.
- Features**: user stories smaller than epics that still span several sprints
- Sprintable stories**: user stories that are small and detailed enough to do in a single sprint

### Matthew petruescu 6-9 (Summary)

- Using scrums and PBI to estimate how long the product will take
- Sprint backlog which keeps track of the sprints
- Sprint backlog must consist of PBI, Task necessary to complete them and effort estimates for all task
- Sprints are typically shorter, for example one week to a month long. and the
- PO should never try to alter the sprint backlog during sprints

### **Santiago Bermudez 10-13 (Summary)**

-A task board is laid out as a table whose rows are the sprint backlog PBIs and whose columns are areas showing tasks that have not yet been started, are being worked on, or are done.

-When a team-member is ready to work on a task, he or she chooses one from the To Do column and moves it into the In Progress column. When that task is finished, it is moved into the Done column.

### **Making and Using a Definition of Done:**

-One pitfall that teams sometimes fall into is to count a PBI as finished during a sprint when really it is not.

-A definition of done is a checklist of what needs to be accomplished for a PBI to be considered completed.

### **Finishing a Sprint:**

-The two activities at the conclusion of a sprint are both aimed at reflection and improvement: the sprint review reflects on the product to improve it, and the sprint retrospective reflects on the process to improve it.

-Sprint reviews should be informal but follow more or less the following agenda.

1. The meeting begins with a team member (usually the PO) presenting the overall sprint goal (if any) and the PBIs in the sprint backlog. The team also lists the PBIs completed and explains any discrepancy between the planned and actual work accomplished.
2. One or more team members demonstrate the new aspects of the product.
3. All participants discuss the product and its development path. The goal is to decide on the next steps in development to ensure that the team is always working on the most important and valuable changes that can be made to the product.

-The results of the sprint review are fed forward into planning for the next sprint and should be reflected in the product backlog.

### **Other Scrum Practices:**

-Daily scrum—A short (maximum 15 minute), often stand-up (no chairs) meeting in which each member states three things: (a) what did I do since the last meeting, (b) what will I do today, (c) what is impeding my progress.

-Story time—This is a regularly scheduled meeting to groom the product backlog. As noted, although the PO is responsible for the product backlog, grooming often requires input from the team; story time provides an opportunity for the PO and the team to meet.

-Cross-functional teams—If there is too much of one kind of work for specialists to accomplish in a sprint, then everyone else helps out. This is viewed as a way for team members to increase their skills, to keep growing, and to stay interested.

-Sustainable pace—Each sprint should be planned to keep everyone busy until the end, but without a mad rush to finish. Sprints are not extended and only shortened if the team asks them

to be. If something is not complete, at the end of the sprint it goes back into the product backlog. This helps avoid pressure to over-work.

**Planning poker**—It uses story point cards in a format resembling poker. After describing a PBI, each team member throws an estimate card on the table. If there is disagreement, each team member explains the basis for their estimate, and the cards are collected and then thrown again, presumably reflecting estimates modified in light of the discussion.

**Bidding**—In essence, team members take ownership of particular tasks by bidding on them in ideal hours. If one team member places a bid that is too high, another can come along and offer to complete it in less time.

**Pair programming**—Two team members sit together at one terminal, with one person typing. The two collaborate writing code (or whatever else they are doing), with the non-typing person checking what the typing person is doing. The idea is to incorporate instantaneous inspection and correction into the development process.

### **Scrum-Guide\_US.pdf:**

#### **Dane Coleman 1-5 (Summary):**

**What is Scrum?** It is lightweight. Easy to understand, but difficult to master. It is a Framework that is used to manage a complex product. It makes clear of any weaknesses in product management or development which will allow for quick adjustments. Scrum teams & their roles, events, artifacts, and rules all have a specific purpose and is the reason why Scrum is such a successful agile framework.

**Scrum Theory:** Scrum is based on the theory of Empiricism. This view means that all of our knowledge originates from experience and what we know. One tool in scrum that relates to this theory is the sprint process. For example, each sprint that teams implement are in increments, and teams learn from their mistakes/weaknesses from their previous sprints. Repeating this cycle makes it an iterative process as well.

#### **The three pillars of upholding the Empirical Process in scrum:**

**Transparency:** This means *everyone* involved in the product outcome is on the same page for everything; a common language for the process is agreed upon. People must be honest with their desires. Sharing a common goal is the main motive/driving force.

**Inspection:** Everyone involved evaluates Scrum artifacts and progress to detect unwanted variances. Inspection is what makes the Scrum framework adaptive to complex problems. Frequent inspection could cause delays in work which should then be minimized.

**Adaptation:** If it is determined by someone(whether it be the inspector or client) that something is unacceptable in the process, an adjustment must be made. Four formal events for inspection and adaptation are: Sprint planning, Daily Scrum, Sprint Review, Sprint retrospect.

**The Scrum Team has three roles:** Product Owner, Development team, Scrum Master. These members aren't directed by others and they solely decide how to best do their job. This team model that Scrum abides by enhances Flexibility, Creativity, and Productivity. Also, since the process is iterative/incremental, there is a lot of feedback & improvement.

**Product Owner:** Ensures that the product is created to its fullest potential and monitors the work of the Development Team. It is the person that manages the product backlog; but may have the development team manage it. Anyone who desires to change anything in the product backlog must ask the product owner first.

**Development Team:** Professionals working on the sprints with the goal of releasing a stable increment. They are self-organizing meaning no one will order them how to function, which will give them the freedom and flexibility to turn the backlog into increments. All the skills needed are going to be in the development team. However, there are no sub-teams that specialize in certain skills; the team will have to adapt with what they have and focus on that. The accountability is on the entire team; never just one person.

**Scrum Master:** Ensures that everyone is following the guidelines of Scrum's core principles. The Scrum Master helps with communication by letting the people outside of the Scrum Team understand what information they are giving is useful, and what is not. The Scrum Master wants to make sure everything is running the way it is supposed to which will maximize value.

### Chris Long 6-10 (Summary):

**Scrum Master Service:** To the Product Owner, the Scrum Master helps the Scrum team understand and finds effective techniques for product backlog management. To the development team, the Scrum Master coaches the team and removes impediments. To the Organization, the Scrum Master helps employees and stakeholders understand Scrum and increases productivity of the Scrum Team.

**Scrum Events:** Time-boxed Events in scrum create regularity and minimize need for meetings not defined in Scrum. The duration of Sprints is fixed and the Sprint is a container for all other events. Events allow you to formally inspect and adapt something.

**The Sprint:** The heart of Scrum, a time-box of a month or less where something gets "Done" and is potentially a releasable product. A Sprint starts immediately after another one ends. Sprints contain Sprint Planning, Daily Scrums, development work, the Sprint Review, and the Sprint Retrospective. During the sprint the goals do not change, but scope may be re-negotiated as the Team learns more. A Sprint should be one month, because longer may increase risk of the Sprint not being finished and limits the cost to one month of cost.

**Cancelling a Sprint:** Sprints can be cancelled by the Product owner if the Sprint Goal becomes obsolete for example, but cancelling rarely makes sense due to the one month time limit.

**Sprint Planning:** The work to be done during the Sprint is planned at the Sprint Planning meeting. Plans time-boxes up to eight hours to plan events, and plan what can be delivered in

the Increment/how will the work get done. The development team works to forecast the functionality that will be developed during the Sprint. The Product Owner discusses the objective of the Sprint and which Product Backlog items would achieve the Sprint Goal. After setting the Sprint Goal and selecting Product Backlog items for the Sprint, the Development Team decides how it will build this functionality into a "Done" Product during the Sprint and what they believe they can accomplish in the upcoming Sprint. The first few days of the Sprint are planned out by the end of this meeting. If they feel they have too much/little work, the Development team may renegotiate the selected Product Backlog items with the Product Owner. By the end of the Sprint Planning, the Development Team should be able to explain to the Product Owner and Scrum Master how it intends to work as a self-organizing team to accomplish the Sprint Goal and create the anticipated Increment.

**Sprint Goal:** An Objective set for the Sprint that is met through the implementation of Product Backlog. Provides guidance to the Development Team.

**Daily Scrum:** A daily 15-minute time-boxed event for the Dev Team to synchronize activities and create a plan for the next 24 hours. Inspects the work since the last Daily Scrum and forecasts the work to be done for the next one. Same time/place every day. Team members explain what they did yesterday, what they will do today, and if they have any obstacles preventing them from meeting the Sprint Goal. Allows for inspecting progress of the Sprint and increases chance the Sprint Goal is met. The Scrum Master makes sure this meeting happens, and that only Development Team members participate.

### **Tyler Ito 11-16 (Summary):**

**Sprint Review:** Held at the end of a Sprint. Scrum Team and stakeholders provide feedback on accomplishments in the sprint, and what could be done to optimize future sprints. The Meetings consist of:

- 4-hour time-boxed meeting
- SCRUM team and stakeholders
- Explain finished and unfinished product backlog items - Owner
- Discuss what went well and what didn't - Dev team
- Demonstrate completed work - Dev team
- Discuss product backlog and dates - Owner
- Plan what to do in the next Sprint Planning session - group
- Review product, timeline, budget, and marketplace - group

**Sprint Retrospective:** Held after Sprint Review and before next Sprint Planning. For the SCRUM team to reflect and plan for the next sprint. Formal opportunity for the team to focus on inspection and adaptation. The Meetings consist of:

- 3-hour time-boxed meeting
- Inspecting last sprint with regards to people, relationships, processes, and tools
- Work on improvements and successes

- Identify failures and work on a plan to improve how the scrum team works in the next sprint
- Adapt the definition of “DONE” as appropriate

## Scrum Artifacts

**Product Backlog:** An ordered list of all features, functions, requirements, enhancements, fixes and changes that will be made to the product. The backlog is never finished and constantly evolves alongside the product to keep the product competitive and useful. The product owner manages and orders the backlog. Backlog items consist of:

- Description of the item
- Estimate of the time it will take
- Value that it will add to the product
- Order in which items should be completed (Items higher up on the order will be more defined)

**Monitoring Progress:** The product owner tracks the total work remaining at a minimum every sprint review and compares it to previous sprints. Some tools used to track progress include: burn-downs, burn-ups, or cumulative flows. Practice forward-looking decision-making.

**Sprint Backlog:** Set of product backlog items selected for the sprint, combined with the plan for delivering the product increment and reaching the sprint goal specifically for the Dev team. Showcased the requirements to get the increment to a “done” state. Modified during a sprint to show completed work, unnecessary work, and remaining work. Progress is monitored at Daily Scrum to determine if the Sprint Goal is achievable.

**Increment:** Sum of all product backlog items completed during the sprint. At the end of a sprint, the increment must be “Done,” and in a usable condition.

**Artifact Transparency:** value and risk are determined by the perceived state of artifacts, therefore artifacts should be made as transparent as possible. Unclear artifacts can diminish value and increase risk. The Scrum Master inspects artifacts to manage and increase the transparency of the artifacts.

**Definition of “Done”:** Everyone on the team should understand what “Done” means. The definition should be decided before the sprint is started. Sprints should be organized in a way where a “Done” increment is usable and potentially releasable. Each Increment is additive and should work with previous increments. The definition of “Done “ should evolve with the Scrum Team to ensure constant high quality work.

## Ramo (Summary)

### Scrum.pdf:

Scrum is a framework that makes working as a team very achievable. It's like a sports team. You train or practice for game days, learn through trial and error, and most importantly



you reflect on prior successes and failures to continue to improve. Scrum has many different parts. You have Sprints, backlogs, roles, reviews, and so on. Each part is important in its own way. However, personally i think the sprint planning is the most important part. If the sprints are planned accordingly, the chances of success are much higher. With a proper sprint in order, it distinguishes what tasks should be achieved based on a timeline or timeframe. Another important concept or part is "Managing the Product Backlog". A common approach to this is User Stories. For example, As a <user role> I want to <goal> so that <benefit>. The goal is what the user wants to accomplish and the benefit explains why.

### Scrum-Guide-US.pdf:

Scrum was developed to manage complex product development. It's appealing because its lightweight and simple to understand. However, a flaw is that it's very difficult to master. It is based on empiricism (Empiricism asserts that knowledge comes from experience and making decisions based on what is known). 3 important pillars that relate are transparency, inspection, and adaptation. Transparency refers to a common understanding of the process. Inspection refers to determining hiccups or unseen variances that can affect a sprint. And lastly, adaptation refers to undesirable variances that were detected by the inspector to be adjusted. This prevents further issues or impacts during the sprint.