# Transcript

## Pre-game Phase

### Learning Objective

After completing this topic, you should be able to

- *recognize activities that take place during the pre-game phase of a Scrum project*

### 1. Pre-game planning

At the start of a new Scrum project, some initial planning and design must take place in order to define a project goal and product backlog for the project.

In Scrum, the initial planning phase consists of three major activities – establishing the project goal, establishing product requirements, and creating the product backlog.

Select each pre-game activity for more information about what it involves.

**Establish the project goal**

At the beginning of a project, the product owner – who represents the customer – defines the vision, or goal, for the project. The project goal is similar to a mission statement – it states the main purpose of the project and acts as the driving force behind all subsequent development.

In Scrum, the project goal should focus on the business need that the product or service to be developed will deliver for the customer, or on how the product will provide the customer with a healthy return on investment, or ROI.

**Establish requirements**

In collaboration with the customer, the product owner develops an initial list of product requirements as part of the pre-game phase. Customers express their product requirements to the product owner. Each product requirement should describe functionality that the developed product or service must provide.

If a project involves upgrading an existing system, the product owner may be able to establish requirements based on the upgrades. However, if a project involves creating a new product, the product owner's job is more extensive. It will involve meeting with the customer or user representative to develop requirements.

**Create the product backlog**

In Scrum, the product owner is responsible for creating an artifact – or document – known as the product backlog. This is an ordered list of the requirements gathered from the customer.

Typically each requirement is presented in the form of a user story, which describes what a product must do or how it must function from an end user's perspective. An ideal user story will take the development team a period of about 10 days to develop, to ensure it can be handled within a single iteration. So generating user stories may involve splitting complex requirements or merging multiple simpler ones.

In a project that involves upgrading an online bookstore's web site, for example, the project goal may be to design a site that's professional, easy to navigate, informative, and secure.

The product owner and customer can then work on defining initial requirements for the project. For example, the customer may emphasize the need for a user-friendly customer logon screen and a facility for validating customer billing details automatically after logon.

Another stakeholder at the customer's company may ask that the team include a facility for browsing newly released books and a more intuitive online shopping cart.

Next the product owner incorporates the customer's requirements for the bookstore's web site, often in the form of user stories, in a product backlog.

User stories in a product backlog are typically phrased using the format "As a <role>, I need to <goal> so that <business value to be achieved>." An example is "As a customer of the bookstore, I need to be able to browse for books by author or title so I can find books I want to purchase easily."

Another example might be "As a user of the online bookstore, I need to be able to add newly released books to my online shopping cart."

Question

In Scrum, who's involved in establishing a project's goal and product requirements?

**Options:**

1. The customer
2. The product owner
3. The Scrum Master
4. Developers

Answer

***Option 1:*** *Correct. The customer, or a customer representative, collaborates with the product owner to establish the vision and accompanying goal for a project, and to determine product requirements.*

***Option 2:*** *Correct. In a Scrum team, the product owner represents the interests of the customer. This person is responsible for collaborating with the customer to define a project's goal and establish product requirements, which are then communicated to other team members.*

***Option 3:*** *Incorrect. The Scrum Master guides and oversees the work of an agile team, but isn't responsible for establishing a project's goal or product requirements.*

***Option 4:*** *Incorrect. Developers on an agile team are responsible for meeting the specified project goal and product requirements, but not for formulating these.*

**Correct answer(s):**

1. The customer
2. The product owner

The product backlog may be an electronic document, in the form of a list or table. For example, it may take the form of a spreadsheet saved in a public folder so that all team members can access it.

Alternatively, the product backlog may be a physical board covered in sticky notes, each identifying a user story. This board can be placed in a common room where all team members can refer to it.

Graphic

*A whiteboard contains sticky notes under columns named Story, To do, In progress, To verify, and Done.*

A well-defined and comprehensive product backlog forms the foundation for a successful Scrum project. Guidelines for creating an effective product backlog are to order the customer's requirements appropriately, add the necessary functional requirements, provide the most detail for top items in the backlog, and ensure that all user stories are sufficiently specific.

Select each guideline for more information.

**Order customer requirements**

Factors that the product owner should consider when ordering product backlog items include their business value and importance to the customer, and the associated levels of risk.

Generally the user stories that the customer considers the most important should be listed first so that the associated functionality can be developed and delivered during the earliest iterations.

A user story may be associated with a high level of risk if, for example, the project team doesn't have any experience in developing the required functionality. Placing this type of user story near the top of the backlog helps ensure that the team will have plenty of time left to overcome any obstacles that arise.

**Add functional requirements**

As well as the customer's requirements, the product backlog should include key functional requirements that the development team has to meet. This does not mean that task-level detail is needed though.

Developers or other relevant domain experts may assist the product owner in identifying the more technical capabilities. These requirements are also likely to become clearer as development work proceeds.

**Provide the most detail for top items**

When compiling the product backlog, you should ensure that items at the top of the list are detailed enough for the development team to determine associated tasks.

Items further down in the list can be less detailed. The development team can revisit these and figure out the details once project work has started and more information about requirements is available.

**Ensure user stories are specific**

The product owner should attempt to ensure that each item in the product backlog describes a requirement that's specific enough for the development team to understand and address during a single development period, or sprint.

So where possible, the product owner should break broad, non-descriptive items into smaller, more manageable ones. For example, the task of writing the source code for a new web page is quite broad and non-specific. The development team may not be sure exactly what is wanted or meant by it.

In Scrum, like in other Agile methodologies, it's assumed that a customer's requirements will change and become clearer as a project progresses. Accordingly,

the product backlog is continually updated and changed. It isn't considered complete for as long as a product is under development.

It's the product owner's responsibility to monitor and update the product backlog, and to ensure that the rest of the team is aware of any changes.

During the initial pre-game planning, the product owner may set product delivery dates, and decide on the number and functionality of product releases.

The product owner may also decide on Scrum team members, identify and obtain tools the team will need, define risk control measures, and estimate project costs and schedule, factoring in extra expenses such as those related to training.

## Question

You're the product owner for a project that involves developing and rolling out a new automated inventory control system at a wholesale footwear manufacturer.

Which guidelines should you follow when creating the product backlog?

**Options:**

1. Ensure you create the backlog using a standard spreadsheet application
2. Update the product backlog whenever the manufacturer or the development team identifies new requirements
3. Split high-priority customer requirements that are too broad into multiple, more descriptive requirements
4. Refrain from making any changes to the backlog once the customer signs off on it
5. Order requirements in the backlog based on business value and risk

## Answer

***Option 1:*** *Incorrect. The product backlog may take the form of a spreadsheet, list, or table, or it may be a physical board placed where all team members can access it easily. It doesn't have to be in an electronic format.*

***Option 2:*** *Correct. It's important to update the product backlog throughout the development process, as customer or technical requirements change.*

***Option 3:*** *Correct. The product owner should combine or split items in the product backlog so that each item is specific enough for the development team to address during a single sprint.*

***Option 4:*** *Incorrect. In the Scrum approach, a product backlog is expected to continue changing and being updated for as long as a product is in development. This is because product requirements change and become clearer as development proceeds.*

***Option 5:*** *Correct. In a product backlog, you should list requirements in order of their business value to the customer so that the most valuable functionality can be delivered first. You also generally place high-risk items near the top of the list, to allow as much time as possible for handling them and to remove some project risk early on in the project.*

**Correct answer(s):**

2. Update the product backlog whenever the manufacturer or the development team identifies new requirements
3. Split high-priority customer requirements that are too broad into multiple, more descriptive requirements
5. Order requirements in the backlog based on business value and risk

## 2. Developing a high-level design

Once the product owner has compiled project requirements, the development team reviews the backlog and creates a high-level design for the product to be developed.

At this stage, development team members – generally accompanied by the product owner - meet to review the completed product backlog and, based on the items it contains, create a basic product design.

Depending on the project, an analysis may also be performed to determine the impact of the new product on existing systems or architecture, and to identify any changes needed to implement the backlog items.

During the initial pre-game meeting the team performs two main tasks – it reviews the product backlog and it identifies and assigns deliverables to different development periods, or sprints.

Select each activity for more information about it.

**Review the backlog**

The development team members review the product backlog items to ensure that no key items are missing, that they are clear on all the items, and that stories are arranged in an appropriate order, given any known technical issues and constraints. The product owner may choose to have the team members use cards or other means to estimate development.

Based on the review, the product owner makes any necessary changes to the wording of user stories, adds any necessary estimate details, and verifies the order of items in the product backlog.

**Identify and assign deliverables**

As part of the initial pre-game phase of some projects, the development team – in collaboration with the product owner – divides the requirements in the product backlog into increments of work deliverables. Each set of backlog items is then assigned to a particular sprint. This assignment is of course just an estimate as things will change as the sprints progress.

Although a "by the book" Scrum sprint length is 30 days, some practitioners are moving toward using sprints that last for only three, two, or even one week. This is fine, as long as the emphasis remains on ensuring that the team can create at least one functioning deliverable by the end of each sprint.

Consider the example of a project that involves updating the retailer's online bookstore. While reviewing the product backlog to determine a high-level idea of the site's design, you – the product owner – and the team are trying to figure out how to deliver the various increments of the work, each represented as a sprint.

During the meeting, a developer identifies an item that should be added to the backlog, based on a customer requirement that old stock should make room for new stock. "As a customer of the bookstore, I want to browse for books that are in stock to ensure I can organize my wish list according to books' availability."

Developers then choose which items to assign to a sprint. For example, in this instance the first and second backlog items logically go together – they both involve the customer's login – so they're added to sprint 1 in the plan.

Graphic

*Sprint 1 now includes the first two product backlog items: "As a customer of the bookstore, I need to be able to browse for books by author or title so I can find books I want to purchase easily." and "As a user of the online bookstore, I need to be able to add newly released books to my online shopping cart."*

At the end of this phase, the development team should have a product backlog complete with adequate requirement descriptions, estimates, and priority ratings. If applicable, you should also have an initial project, or release, plan – showing the number of sprints and backlog items assigned to each sprint. That's the equivalent of a project schedule for stakeholders and team reference.

At this point the team may discuss task assignments among one another. Or they may decide on some assignments but probably just for the first sprint. Each team member will probably 'volunteer' for tasks that are quite definitely in their area of expertise but some tasks may also be left unassigned until they get to it.

For example, a developer who has experience working with inventories may take on the sprint task of designing a feature that can distinguish between books that are in stock with books that are out of stock or not currently available. Another team member may take on the task of including a Java exception in the site's code to handle errors that may occur as a result of incorrect customer billing information, such as when the date on a customer's credit card has expired according to the date you have on record.

## Question

A Scrum project involves developing a web application that call center agents can use to track calls.

Which activities occur during the high-level design review of a pre-game phase?

**Options:**

1. Establishing the project goal
2. Reviewing the product backlog to determine the web application's basic architecture
3. Identifying and assigning deliverables
4. Establishing the call center's requirements for the application

## Answer

***Option 1:*** *Incorrect. The product owner, or customer, establishes the goal of a project at the outset of the planning stage of the pre-game phase. A high-level design review occurs later, after customer requirements have been gathered and a product backlog has been created.*

***Option 2:*** *Correct. During a high-level design review, the product owner and development team members review the product backlog to establish a high-level design for the product that's to be developed. They check for any missing items and, where appropriate, split or merge items. They may also clarify the wording of particular user stories.*

***Option 3:*** *Correct. During a high-level design, the development team translates requirements in the product backlog into specific deliverables, estimates user stories, and assigns collections of backlog items for development in particular sprints.*

***Option 4:*** *Incorrect. The product owner establishes the customer's requirements earlier on, before compiling a product backlog. During a high-level design review, it's the product backlog that the development team reviews.*

**Correct answer(s):**

2. Reviewing the product backlog to determine the web application's basic architecture
3. Identifying and assigning deliverables

## Summary

In the initial pre-game planning phase, the product owner establishes a project's goal, defines product requirements, and creates an ordered list of requirements known as a product backlog.

Once the project requirements have been identified, the development team and product owner review the product backlog to come up with a high-level design of how to implement items. Depending on the nature and complexity of the product being developed, the team may also review any impact on existing system architecture. The development team may also meet to translate requirements into deliverables and roughly assigns these for development in particular sprints.