Transcript

Managing a Scrum Project

Learning Objectives

After completing this topic, you should be able to

- *carry out pre-game activities given a project scenario*
- *carry out activities related to an initial sprint, given a project scenario*
- *use metrics to track progress on a Scrum project*

Exercise overview

In this exercise, you're required to manage a Scrum project.

This involves the following tasks:

- identifying pre-game activities
- identifying activities related to an initial sprint, and
- recognizing metrics for tracking the progress of a Scrum project and team

Identifying pre-game activities

You've been appointed as product owner for a project that involves developing an upgraded range of desktop publishing software components for a new client. The project team consists of experienced members who are familiar with the Scrum methodology.

You're about to start the pre-game phase of the Scrum development process.

Question

You're meeting with the customer to determine what features they want you to incorporate into their product upgrade.

While discussing the vision of the product, you discover the customer's main motive for upgrading their software is to remain competitive in a rapidly changing business climate. Your client wants to introduce several new features into the software to stay ahead of

rivals in the industry, some of whom offer free backgrounds to users as part of their software packaging.

Identify which project goal is suitable.

Options:

1. Developing a new version of the software that includes new features that can boost sales
2. Making adjustments to the software application's layout and interface to accommodate the addition of a new template
3. Conducting tests on the existing software to check how it can be improved
4. Building a new software application from scratch instead of rolling out an upgrade

Answer

Option 1: *Correct. This project goal meets a business need and adheres to the customer's requirements. The customer wants you to upgrade their desktop publishing software and include new design features such as free backgrounds or templates to meet the needs of the changing market.*

Option 2: *Incorrect. The project goal should reflect what the customer wants, not what the development team needs to do. You should fulfil the customer's expectation for the product, such as including additional features in the upgrade to add value to the product, and outline this in the project goal.*

Option 3: *Incorrect. Although developers can conduct unit tests to check a product for defects, testing is not a suitable project goal. Instead, they should consider ways in which the project can meet the customer's specific needs or create value for the customer, such as by including new features to boost sales.*

Option 4: *Incorrect. The customer made it clear what their main requirement is – the addition of features to the existing desktop publishing software application. When establishing the project goal, you can't disregard the customer's wishes or deviate from what they envision for a project.*

Correct answer(s):

1. Developing a new version of the software that includes new features that can boost sales

Question

As a result of your meeting with the customer and customer representatives, you've established the project goal. The customer is happy with the project goal of "enhancing the current version of the software with the addition of several new features to increase the client's overall product satisfaction levels."

Next, the product requirements need to be established.

Based on the customer's feedback, which user stories are most important for this project?

Options:

1. "As a user of the software, I expect the software application's functionality to be different from what it was like before."
2. "As a user of the software, I need to be able to use graphics in both bitmapped and vector-based format so I can include higher quality graphics."
3. "As a user of the software, I would like to receive some professionally designed layout templates for free to use them in my print and digital publishing projects."
4. "As a user of the software, I need to be able to access the same free background graphics that other organizations use in their publishing software."

Answer

Option 1: *Incorrect. The customer and the product owner decided that the project should improve the existing software application, not change it entirely. The aim is to upgrade it, not rebuild it. This user story isn't required for this project and doesn't align with the project goal.*

Option 2: *Correct. By expanding on the types of graphics that the desktop publishing software can support, the software is enhanced. This offers new functionality to end users to increase their level of satisfaction with the product. Because it aligns with the project goal, this is a requirement for the project.*

Option 3: *Correct. Based on market research, the addition of new and freely available templates to the software application is likely to increase customer satisfaction. This item aligns to the project goal and is therefore a requirement for this product upgrade in order to meet the project goal.*

Option 4: *Incorrect. The project goal is to add new features to the product, in this case the publishing software application. Although adding backgrounds would add new functionality to this product, the concept isn't new and doesn't align with the project goal.*

Correct answer(s):

2. "As a user of the software, I need to be able to use graphics in both bitmapped and vector-based format so I can include higher quality graphics."
3. "As a user of the software, I would like to receive some professionally designed layout templates for free to use them in my print and digital publishing projects."

Question

As product owner, you've finalized the project goal and product requirements with the customer. Next you create an ordered product backlog for the team.

Access the learning aid, Possible Product Backlog Examples, to view some sample product backlogs and then answer the question.

Which product backlog is appropriate in this case?

Options:

1. Product backlog A
2. Product backlog B
3. Product backlog C
4. Product backlog D

Answer

Option 1: *Correct. When creating a product backlog, you should order items according to their business value to the customer. The example displays items arranged in terms of their business value and priority, with those with a higher value placed first.*

Option 2: *Incorrect. Product backlog items should be arranged in the order of their business value, or value to the customer. The items in product backlog B are arranged in the order of initial estimated effort instead of business value.*

Option 3: *Incorrect. You should ensure you arrange product backlog items in the order of their business value, or the order in which you want to deliver items to the customer. The items in product backlog example C are arranged in order of their story point amount instead of priority or business value.*

Option 4: *Incorrect. When creating the product backlog, product backlog items should be arranged according to the order in which you intend delivering them to the customer, with items with the highest business value placed first. However, the product backlog example D has them arranged in decreasing order or business value.*

Correct answer(s):

1. Product backlog A

Identifying initial sprint activities

After you estimate the total time of your Scrum project, you realize that your client has less than a year to release the upgraded version of the product if they want to stay ahead of competitors.

Question

You want to ensure your team delivers the product to the customer on time. So you need to kick off the first sprint as soon as possible with a sprint planning meeting.

What activities should the team perform during this meeting?

Options:

1. Help chart the work that should be performed to release the final product
2. Discuss problems with team members that encountered issues during a previous sprint
3. Team members decide on the amount of work they can commit to doing during the sprint
4. Assist each other in splitting product backlog items into sprint backlog tasks

Answer

Option 1: *Incorrect. This meeting should only include planning for the upcoming sprint, not for the product's release. The planning for a release occurs at a pre-planning stage, or Release Planning meeting.*

Option 2: *Incorrect. This is the first sprint planning meeting, so there wouldn't have been any previous sprints for this project. Discussing sprints from a previous project is not appropriate.*

Option 3: *Correct. During the initial sprint planning meeting, team members decide on the work items they can commit to during an upcoming sprint.*

Option 4: *Correct. During a sprint planning meeting,you should split each product backlog item into smaller, more manageable items and move them into the sprint backlog as multiple items.*

Correct answer(s):

3. Team members decide on the amount of work they can commit to doing during the sprint
4. Assist each other in splitting product backlog items into sprint backlog tasks

Question

You create a sprint burndown chart during the sprint planning meeting.

Access the learning aid, Possible Sprint Burndown Charts, to review some sample charts, and then answer the question.

Which burndown chart reflects the outcome of this meeting?

The question includes four possible burndown chart graphs: Example 1, 2, 3, and 4. Each plots cumulative work remaining as measured in hours on the Y-axis, and time measured in days on the X-axis.

Example 1 measures the work remaining in intervals of 100, starting in 800 on the Y-axis and ending in 0. The X-axis measures the duration of the sprint in days, starting at 0 and ending at 16. However, the graph shows a second line that plots a different trajectory that includes several fluctuations between days 0 and 10.

Example 2 measures the work remaining in intervals of 100, starting in 800 and ending in 0. The X-axis measures the duration of the sprint in days, starting at 0 and ending at 16. Only this trajectory displays.

Example 3 measures work remaining in intervals of 200, starting at

1200 and ending in 0. The X-axis measures the duration of the sprint in days, starting at 0 and ending at 16. However, the graph plots the work remaining as starting on day 4 and ending on day 16.

Example 4 measures work remaining in intervals of 100, starting at 600 and ending in 0. The X-axis measures the duration of the sprint in days, starting at 0 and ending at 30 as 5-day increments.

Options:

1. Example 1
2. Example 2
3. Example 3
4. Example 4

Answer

Option 1: *Incorrect. The sprint hasn't started yet, so the sprint burndown chart should only include the ideal trajectory for the estimated sprint progress, not actual progress. There should therefore be no second line in the graph.*

Option 2: *Correct. The sprint hasn't started yet, so the sprint burndown chart is correct to display only the ideal trajectory for the estimated sprint progress. The sprint is planned not to exceed sixteen days, and approximately 800 hours of work.*

Option 3: *Incorrect. The sprint hasn't started yet, but once it does it starts on day 0 and progresses in linear fashion until day sixteen. This example seems to start on day four, however, instead of day zero.*

Option 4: *Incorrect. The sprint is planned for three weeks, not four. The graph should therefore include sixteen days at most on the X-axis, not 30 days like this example shows.*

Correct answer(s):

2. Example 2

Question

Access the learning aid, Sprint Burndown Chart Examples, to review examples of updated burndown charts.

Which burndown chart reflects the team's progress?

Options:

1. Chart A
2. Chart B
3. Chart C
4. Chart D

Answer

Option 1: *Incorrect. Chart A shows a sharp decrease in work at day 5. This is unlikely, considering the team overcommitted to the amount of work for the sprint. The graph should show an increase not a decline.*

Option 2: *Incorrect. Chart B shows a sharp increase in the remaining work on day 5, which is plausible in this case. However, the graph plots data until day 18, but the team hasn't yet started the third week of the sprint.*

Option 3: *Incorrect. Chart C plots the residual hours of work on day five as having decreased. However, the workload would only have decreased after day 10, when the team asked for the sprint to be adjusted.*

Option 4: *Correct. Chart D plots work as being on course at first. But between days 5 and 10, the amount of remaining work increases sharply. This is in keeping with the team's realization that it has underestimated the amount of work involved. Once the sprint is adjusted, however, the graph resumes an acceptable burndown.*

Correct answer(s):

4. Chart D

Question

As product owner, you're having a brief, informal meeting with the development team and Scrum Master to receive updates on how tasks in the sprint are progressing. The meeting is kept to a maximum length of 15 minutes.

Which type of meeting is this?

Options:

1. Sprint retrospective
2. Sprint planning
3. Sprint review
4. Daily standup

Answer

Option 1: *Incorrect. Sprint retrospective meetings are typically limited to a maximum duration of three hours, rather than 15 minutes. They're used to assess performance during a preceding sprint and to identify possible improvements for applying in subsequent sprints.*

Option 2: *Incorrect. Sprint planning meetings exceed 15 minutes and can even run for as long as four hours. They're used by developers to collaborate with the product owner in setting the goal for the first sprint in a project. Daily scrum meetings are limited to 15 minutes, however.*

Option 3: *Incorrect. For a month-long sprint, a sprint review meeting is usually limited to a duration of four hours, rather than 15 minutes. During a sprint review, the team presents the results of a sprint to the customer for review.*

Option 4: *Correct. Daily standup meetings, also known as Scrums, are kept to a maximum length of 15 minutes. Team members use these meetings to update one another on their progress and on any obstacles they're experiencing. The participants remain standing to encourage everyone to keep the meeting brief.*

Correct answer(s):

4. Daily standup

Using metrics

Question

You're tracking a sprint's progress, and have identified several instances in which there are bugs in the code for the updates being developed. You've made a note of the number of code bugs found during the sprint.

Which tracking metric are you using?

Options:

1. Business value delivered
2. Defects per iteration
3. Number of stories

Answer

Option 1: *Incorrect. The business value delivered metric measures the value delivered by a sprint or project using a measure such as the number of user stories completed. It doesn't relate to defects.*

Option 2: *Correct. The defects per iteration metric lets you track the number of times a problem occurred in a sprint, where a problem is anything that would prevent the customer from being satisfied with the product – such as bugs in source code.*

Option 3: *Incorrect. The number of stories refers to the number of user stories included in a sprint. This may be a simple count, or involve using a weighting system that accounts for stories with different levels of complexity.*

Correct answer(s):

2. Defects per iteration

Question

When you reviewed the number of defects found during a sprint at a sprint retrospective meeting, stakeholders were concerned that using this metric may give the wrong impression regarding the quality of the upgraded software. The Scrum Master has since decided to switch to using a different metric, velocity, to track the team's progress.

Which types of indicators will the Scrum Master be watching for now?

Options:

1. The difference in the number of defects found in subsequent sprints compared to the first sprint
2. The number of story points that the team completes per sprint
3. The number of items from the product backlog that the team completes as part of a sprint

4. The percentage of tests the team uses that are fully automated

Answer

Option 1: *Incorrect. Velocity doesn't relate to defects. Instead it's a measure of the amount of work the development team completes per sprint.*

Option 2: *Correct. Velocity is a measure of the amount of work a team completes per sprint. Often this is measured in terms of story points, which are fixed units of development effort. Each user story is assigned a certain number of story points based on the relative effort needed to develop.*

Option 3: *Correct. Velocity refers to the amount of work a team completes per sprint. This may be measured as the number of backlog items it completes per sprint or, for example, using completed story points.*

Option 4: *Incorrect. Velocity refers to the amount of work the team completes per sprint. It doesn't relate to the percentage of automated tests it uses.*

Correct answer(s):

2. The number of story points that the team completes per sprint
3. The number of items from the product backlog that the team completes as part of a sprint

Pre-game and initial sprint activities, as well as metrics for tracking the progress of a Scrum project, have been identified.

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