



PeopleCert SCRUM Master I

April 2021 Syllabus v2.0



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1. Introduction

Scrum is a framework that helps teams work together. It increases team productivity by encouraging team players to learn through experiences, self-organise, and continuously improve.

IT teams use Scrum to develop, deliver, and maintain complex software products. However, Scrum principles can be applied to all kinds of areas: research, sales, marketing, and customer support - to name a few.

How does Scrum work?

Based on Agile principles, it enables teams to self-organise by encouraging close collaboration between all team members and specialisms involved. Scrum challenges the assumptions of the sequential approach to product development and replaces it with an iterative process. It includes a set of meetings, tools, and roles that work in harmony to help teams structure and manage their work.

The goal of this approach is to timely capture changes in customers' needs, along with any other unpredictable challenges that may occur — for which a sequential approach is not suited. As such, Scrum uses an evidence-based framework that embraces the fact that problems cannot be fully defined upfront. Instead, it focuses on maximising the team's ability to respond to emerging requirements, deliver value quickly, and adapt to new market conditions.

Why is it important to hold a Scrum certification?

Holding a Scrum certification proves the candidate's familiarity with Scrum practices, beyond the mere knowledge of terminology. It shows to employers that the candidate has the potential to be the person they need to cover the Scrum Master role in their teams.

Whether the candidate is a Scrum beginner or a seasoned professional, a certification a significant advantage when aiming to motivate and lead teammates. The PeopleCert Scrum Master credential showcases that the candidate has the skills necessary to lead an agile team successfully.

1.1. PeopleCert SCRUM Qualification structure

The PeopleCert SCRUM qualification scheme has been structured as follows:

- PeopleCert SCRUM Master I (14-16 training hours) Candidates get the essential knowledge needed by IT professionals in Agile methodologies and Scrum practices. It focuses on the fundamental principles and concepts of both Agile and Scrum.
- **PeopleCert SCRUM Master II** (14-16 training hours) Candidates will enhance on all aspects of the Scrum framework through a variety of real-world scenarios and focused practical information related specifically to the Scrum Master.
- PeopleCert SCRUM Product Owner stream (coming soon) Candidates will cover all aspects
 of the Scrum framework through a variety of real-world scenarios and focused practical
 information related specifically to the Scrum Product Owner.
- PeopleCert SCRUM Developer (coming soon) Candidates will cover all aspects of the Scrum framework through a variety of real-world scenarios and focused practical information related specifically to the Scrum Developer.

The **PeopleCert SCRUM Master I** certification covers the fundamental **knowledge** required for a candidate to build their knowledge and skills regarding Scrum principles and practices. In addition, the **PeopleCert SCRUM Master II** certification (which is the next level of the qualification) covers more advanced skills, practices and knowledge about the Scrum framework.

The body of knowledge underlying these skills are presented in the official courseware provided by PeopleCert to accredited ATOs. The primary purpose of the syllabus is to provide a basis for accreditation of people involved with the Scrum framework. It documents the learning outcomes related to the qualification and describes the requirements a candidate is expected to meet to demonstrate that these learning outcomes have been achieved at the specific qualification level.

2. PeopleCert SCRUM Master I

2.1. Purpose of the SCRUM Master I Qualification

The purpose of this qualification level is to confirm that a candidate has sufficient knowledge, understanding and application of the Scrum framework and be able to work effectively with, or as a member of, a Scrum Team.

2.2. Target Group/Audience

This certification is the **first level** of the **PeopleCert SCRUM** qualification scheme provided by PeopleCert and is aimed at anyone who wishes to become an efficient member of a Scrum environment and requires candidates to have and demonstrate a solid **knowledge** and **understanding** of the Scrum terms, principles, tools and practices, as well as demonstrate their **application** skills of how to use tools efficiently and effectively. The certification can also cater for candidates seeking personal certification.

This certification will provide all the required level of knowledge to its holders and will certify that they have a solid understanding of Scrum using various tools.

An **advanced** level of skills and knowledge is covered in **PeopleCert SCRUM Master II** which is the next level of the **PeopleCert SCRUM** qualification scheme provided by PeopleCert.

3. Learning Objectives

At this qualification level, candidates will be introduced to basic concepts, terms, principles and tools used for Scrum as well as why Scrum is needed in modern enterprises, the Scrum methodology, people and culture implications as well as the practices, processes, and technology used for adapting Scrum within an organization.

Holders of the **PeopleCert SCRUM Master I** certification, will be able to demonstrate their knowledge, understanding and practical application of:

- The definition and purpose of Agile
- The three pillars of Scrum: inspection, adaptation, and transparency
- The five Scrum values: commitment, focus, openness, respect, and courage
- The characteristics of an effective Scrum Master, Product Owner, and developer
- The purposes of different Artifacts and Events in Scrum

3.1. Qualification Scheme Level

Through the above learning objectives, candidates will demonstrate relevant knowledge skills in the following areas:

Main Topics

Introduction to Agile Project Management An Introduction to Scrum The Scrum Team Scrum Artifacts Scrum Events Releasing the Increment

4. Examination

The **PeopleCert SCRUM Master I** Certification Exam is designed to validate a candidate's knowledge and understanding of Scrum basics as detailed above as well as how to be able to apply this knowledge through tools and practices in a modern enterprise.

The **PeopleCert SCRUM Master I** exam focuses on the following **two** (2) categories in the cognitive domain of **Bloom's taxonomy**¹ which is a reference for different levels of learning:

- Knowledge
- Comprehension

4.1. Assessment Approach

The assessment approach used for the **PeopleCert SCRUM Master I** certification focuses on the **two basic** categories of Knowledge and Comprehension.

Knowledge is defined as recalling previously learned material, from facts to theories and represents the lowest level of learning outcomes in the cognitive domain. Such learning outcomes are turned

¹ The Bloom's taxonomy defines **six** (6) levels of learning in the **cognitive** domain (know, comprehend, apply, analyze, evaluate, create), which are both sequential and cumulative and move from the simple to the complex. In order to achieve the 6th level of learning, it must be ensured that the previous five levels have been mastered.

in assessment objectives that include **knowing and recalling** such as:

- Common and/or basic terms, definitions, concepts and principles
- Specific processes
- Processes, procedures and project management methods

Comprehension is the lowest level of understanding and entails the ability to grasp the meaning of the material taught, including some elements of interpretation, translation or estimation during the process. Such learning outcomes and in turn assessment objectives go beyond simply recalling information and may include:

- Understanding facts, concepts and principles
- Interpreting material (i.e. code, charts, graphs, text, diagrams)
- Justifying a process, procedure and method used

The assessment incorporates the above learning outcomes as it uses assessment objectives that cater for the above cognitive domain categories.

4.2. Entry Criteria/Training Requirements

For this examination, there **are no** formal entry criteria or training requirements.

In order to be eligible for the **PeopleCert Scrum Master I** level examination a candidate must be able to demonstrate knowledge and understanding of basic Scrum terms, principles, processes, practices and tools and it is recommended that the candidate has received **Accredited Training** by a PeopleCert accredited training partner.

4.3. Examination Format

The following table details the examination format for the PeopleCert SCRUM Master I exam:

Delivery	Computer (web proctored or classroom)
Туре	40 Multiple Choice Questions (MCQ)
	Each question is awarded one (1) mark
Duration	1 hour (60 minutes)
	For non-native speakers or candidates with a disability, an
	additional 15 minutes of extra time is allowed.
Pass Mark	70% (28 marks out of 40)
Invigilator / Supervisor /	Yes
Proctor	Physical or Online Proctoring
Open Book	No
	No materials are allowed in the examination room
Prerequisites	None
Distinction	N/A
Certification validity	Perpetual

The tests are derived from a regularly updated question test bank (QTB) based on the test specification detailed below. Questions are used interchangeably among test sets. The overall difficulty level of each test is the same with any other test. A candidate is never assigned the same test in the case of multiple examination attempts.

5. Detailed Syllabus

The syllabus is structured into sections relating to the **major subject headings** and numbered with a single digit section number. A total of **fourteen to sixteen (14-16) hours** of accredited training is **recommended**.

Category	Topic	Ref	Knowledge/Task Item
1 Introduction to Agile Project Management	1.1 What Is Agile?	1.1.1	Define the term "Agile" as an adjective used to describe a flexible, iterative project management style and identify key terms used to describe Agile approaches.
		1.1.2	Identify the four values of the Agile Manifesto.
		1.1.3	Identify the twelve principles of the Agile Manifesto.
		1.1.4	Recall the three characteristics of value.
		1.1.5	Identify the benefits of using an Agile project management approach.
	1.2 Agile Methodologies	1.2.1	Identify popular Agile approaches.
		1.2.2	Identify the factors that contribute to the success of an Agile project management approach.
		1.2.3	Identify characteristics of predictive development approaches.
		1.2.4	Identify characteristics of adaptive development approaches.
		1.2.5	Recall the meaning of iterative development and incremental development.
		1.2.6	Identify criteria for when it is best to use an Agile or waterfall approach.
2 An Introduction to Scrum	2.1 What Is Scrum?	2.1.1	Define the term "Scrum".
		2.1.2	Understand the Scrum Environment.
		2.1.3	Know about the History of Scrum.
	2.2 The Scrum Guide	2.2.1	Describe the key benefits of using Scrum.
		2.2.2	Identify empiricism and Lean thinking as the basis for Scrum theory.
		2.2.3	Identify the three pillars of Scrum: inspection; adaptation; and transparency.
		2.2.4	Explain the five Scrum values: commitment; focus; openness; respect; and courage.
3 The Scrum Team	3.1 The Scrum Team	3.1.1	Recall the composition, responsibilities, and accountabilities of the Scrum team.
		3.1.2	Understand how a Scrum team differs from a traditional team (i.e. no project manager).
		3.1.3	Describe cross-functional and selfmanaging teams.

Category	Topic	Ref	Knowledge/Task Item
		3.1.4	Identify the requirements for self-
			managing teams.
		3.1.5	Describe a T-shaped professional.
	3.2 Roles and Accountabilities	3.2.1	Recall the description of the Developers and their accountabilities.
		3.2.2	Recall the description and traits of the Product Owner (who is a single person) and their accountabilities.
		3.2.3	Recall the description and traits of the Scrum Master and their accountabilities.
	3.3 The Scrum Master	3.3.1	Explain how the Scrum Master serves the Scrum team.
		3.3.2	Explain how the Scrum Master serves the Product Owner.
		3.3.3	Explain how the Scrum Master serves the organization.
	3.4 Teams and Work Environment	3.4.1	Describe the work environment for colocated teams.
		3.4.2	Describe the work environment for distributed teams.
4 Scrum Artifacts	4.1 Artifacts in Scrum	4.1.1	Recall the meaning of the word artifacts.
		4.1.2	Identify Scrum's artifacts and their commitments.
	4.2 The Product Backlog	4.2.1	Recall the definitions for product and product goal.
		4.2.2	Describe the product backlog.
		4.2.3	Recall the common labels used for product backlog items.
		4.2.4	Recall the progression of an epic to a user story.
		4.2.5	Recall the description of an epic.
		4.2.6	Recall the description of a feature.
		4.2.7	Recall the description of a user story.
		4.2.8	Identify the suggestions for how to write good user stories.
		4.2.9	Explain acceptance criteria.
		4.2.10	Recall the types of acceptance criteria.
		4.2.11	Recall the meaning of DEEP.
		4.2.12	Describe Product backlog refinement.
		4.2.13	Explain product backlog refinement.
		4.2.14	Describe the definition of ready.
		4.2.15	Recall the goal of product backlog refinement.
		4.2.16	Describe when refinement happens.
		4.2.17	Recall the basic sizing concepts.
		4.2.18	Explain the 'ideal time' sizing technique.

Category	Topic	Ref	Knowledge/Task Item
- Codegoiy	. Оргс	4.2.19	Identify the advantages/disadvantages of
			'ideal time' sizing.
		4.2.20	Explain the 'story points' sizing technique.
		4.2.21	Identify the advantages/disadvantages of 'story points' sizing.
		4.2.22	Identify other sizing scales.
		4.2.23	Explain the use of the Fibonacci Sequence in Scrum environment.
		4.2.24	Describe the Planning Poker approach to sizing PBIs.
		4.2.25	Explain how to play Planning Poker.
		4.2.26	Describe the triangulation sizing approach.
		4.2.27	Explain the MoSCoW prioritization technique.
	4.3 The sprint backlog	4.3.1	Describe the sprint backlog.
		4.3.2	Identify the sprint backlog contents.
		4.3.3	Describe the sprint goal.
	4.4 The increment	4.4.1	Describe the increment.
		4.4.2	Recall the meaning of the 'Definition of Done' and how it can evolve through time.
		4.4.3	Understand the use of a shared/consistent "definition of done" among multiple teams working on a Product Backlog.
		4.4.4	Understand the importance of a strong 'definition of done' and know how it can be created.
5 Scrum Events	5.1 Scrum Events	5.5.1	Describe the purpose of the Scrum events.
		5.5.2	Explain Product planning before the sprints.
		5.5.3	Describe Product planning.
		5.5.4	Describe the planning onion.
	5.2 The sprint basics	5.2.1	Describe the concept of a sprint.
		5.2.2	Identify the sprint events.
		5.2.3	Recall the meaning of 'timeboxing.'
		5.2.4	Recall the duration of Scrum's time-boxed events.
	5.3 Sprint planning	5.3.1	Describe the sprint planning event.
		5.3.2	Identify the inputs and outputs of the sprint planning event.
		5.3.3	Recall the meaning of capacity as it is used in sprint planning.
		5.3.4	Calculating capacity.
		5.3.5	Recall the concept of velocity.
		5.3.6	Recall how to credit "work done" as part of velocity.
		5.3.7	Recall the three topics addressed during sprint planning.

Category	Topic	Ref	Knowledge/Task Item
		5.3.8	Describe sprint planning topic one - Why is this sprint valuable?
		5.3.9	Describe sprint planning topic two - What can be done this sprint?
		5.3.10	Describe sprint planning topic three - How will the chosen work get done?
		5.3.11	Explain the concept of a visible sprint backlog.
	5.4 Sprint execution	5.4.1	Describe sprint execution.
		5.4.2	Recall the sprint execution inputs, outputs, and participants.
		5.4.3	Identify the high-level aspects of sprint execution.
		5.4.4	Describe questions used for task planning.
		5.4.5	Describe flow management and task performance.
		5.4.6	Describe the Scrum board and how it is used.
		5.4.7	Recall the purpose of the sprint burndown chart.
		5.4.8	Recall the contents of the expanded Scrum board.
		5.4.9	Recall the explanation of the daily Scrum.
		5.4.10	Recall the duration and participants in the daily Scrum.
		5.4.11	Recall the rules for the daily Scrum.
		5.4.12	Recall the four possible questions for the daily Scrum.
		5.4.13	Identify the benefits of the daily Scrum.
		5.4.14	Identify what happens with incomplete stories in a sprint.
		5.4.15	Recall what happens if work is finished early.
	5.5 Sprint review	5.5.1	Describe the sprint review.
		5.5.2	Identify the sprint review inputs, outputs, and participants.
		5.5.3	Identify the benefits of the sprint review.
		5.5.4	Explain what happens during the sprint review.
	5.6 Sprint retrospective	5.6.1	Recall the purpose of the sprint retrospective.
		5.6.2	Identify the sprint retrospective inputs, outputs, and participants.
		5.6.3	Explain what happens during the sprint retrospective.
		5.6.4	Identify the format of improvement stories.
		5.6.5	Recall the use of the improvement board.

Category	Торіс	Ref	Knowledge/Task Item
6 Releasing the Increment	6.1 Releasing the Increment	6.1.1	Describe Release Planning.
		6.1.2	Describe Release Timing.
		6.1.3	Identify the variables that affect release planning.
		6.1.4	Recall the meaning of fixed-scope release and fixed-date releases.
		6.1.5	Recall the definition of the release backlog and identify who is responsible for its management.
		6.1.6	Explain the way from Product Backlog to Release Backlog.

6. Test Specification

The **PeopleCert SCRUM Master I** examination will consist of **six** (**6**) sections with the following structure:

Category	Description	Exam (%)
1	Introduction to Agile Project Management	10.0%
2	An Introduction to Scrum	7.5%
3	The Scrum Team	10.0%
4	Scrum Artifacts	30.0%
5	Scrum Events	40.0%
6	Releasing the Increment	2.5%
	Total	100.0%

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8. Glossary

Term	Definition
acceptance criteria	Acceptance criteria are a formal list of external quality characteristics specified by the product owner that give guidance about whether a product backlog item has been successfully developed and will, therefore, be accepted by the customer.
adaptation	One of the three pillars of empirical process control and, with the other two – transparency and inspection – provide the feedback necessary to make continual improvements to the product being developed.
affinity estimation	A quick and easy technique used by the developers to quickly estimate a large number of user stories using categories that indicate relative size. Example: t-shirt sizes (XS, S, M, L, XL)
Agile	A project management style focused on the early delivery of business value, continuous improvement, scope flexibility, team input, and delivering well-tested products that reflect customer needs.
Agile Manifesto	The Agile Manifesto is a document written in 2001 by seventeen independent-minded software practitioners in Snowbird, Utah that is comprised of four foundational values and 12 supporting principles that guide the development and delivery of high-quality, working software.
artifact	Scrum artifacts provide key information the Scrum team and the stakeholders need to be aware of to understand the product under development, the activities being planned, and the activities conducted during the project. Artifacts defined by Scrum are specifically designed to maximize the transparency of key information so everyone has the same understanding of the artifact. The following artifacts are defined in Scrum: the product backlog, the sprint backlog, and the increment.
capacity	The quantity of resources available to perform useful work
	 A concept used to help establish a WIP limit by ensuring that we only start work to match the available capacity to complete work
Co-location	Co-location is having all Scrum core team members located in the same workplace to leverage the advantages of better coordination, problemsolving, knowledge sharing, and learning.
complex systems (in the context of organizational change)	Complex systems are comprised of a large number of elements that interact in nonlinear ways, and their behavior is determined by the nature of these interactions. They are open systems in which a stable state is not desirable. These systems are often referred to as complex adaptive systems because unpredictable, novel characteristics may emerge which may or may not be desirable. (Blignaut, 2019)
component team	A team responsible for an architecture building block such as one of the layers of a feature. One component team may be responsible for the user interface layer, while other teams are responsible for the business logic layer and the data layer. (Roman Pichler, 2020)
continuous quality	A systematic approach for identifying and addressing problems as early as possible in a development lifecycle. Early and continued validation is essential and can be achieved through a variety of approaches such as peer reviews, test driven development, and unit testing among others. Often referenced in conjunction with continuous integration/continuous delivery. (Dowd, 2018)
daily Scrum	The daily Scrum is a 15-minute time-boxed event for the developers that is held at the same time and place every day of the sprint. During this time, the developers plan work for the next 24 hours. The daily Scrum is a synchronization, inspection, and adaptive planning activity that optimizes team collaboration and performance. May also be known as the daily standup.

Term	Definition
daily stand-up	See daily Scrum.
decomposition	Decomposition is a tool whereby high-level tasks are broken down into lower level, more detailed tasks. The user stories are decomposed into tasks by members of the Scrum team. Prioritized product backlog user stories should be sufficiently decomposed to a level that provides the Scrum team with adequate information to create deliverables from the tasks mentioned in the task list.
DEEP	An acronym coined by Roman Pichler and Mike Cohn for remembering a set of criteria used to evaluate the quality of a product backlog. The criteria are d etailed appropriately, e mergent, e stimated, and p rioritized.
definition of done	An agreed-upon list of the activities deemed necessary to get a product increment, usually represented by a user story, to a done state by the end of a sprint. The definition of done ensures everyone on the team knows exactly what is expected of everything the team delivers. It ensures transparency and quality are fit for the purpose of the product and organization.
Developers	Developers are the people in the Scrum team that are committed to creating any aspect of a usable increment each sprint. (Previously referred to as the Development team.)
development work	The work required to create a releasable increment of product every sprint
empiricism	Empiricism asserts that knowledge comes from experience and making decisions based on what is observed. Empiricism has three pillars: transparency, inspection and adaptation.
empirical process control	Process control type in which only the past is accepted as certain and in which decisions are based on observation, experience and experimentation.
еріс	A large and unrefined user story in the product backlog that is written in the initial stages of the project and can span an entire release
estimation	See sizing.
feature team	A team of developers that implement end-user functionality end-to-end. Contrasts with a component team. (Roman Pichler, 2020)
Fibonacci sequence	The Fibonacci scale consists of a sequence of numbers used for estimating the relative size of user stories in points, resulting in reduced complexity, effort, and doubt when determining the time required for product backlog items. Each number is the sum of the two preceding ones (1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144). It was named after the Italian mathematician Leonardo of Pisa.
fixed-date release	A fixed-date release is one that must be delivered on a known future date; the scope of the release, and possibly the cost, needs to be flexible; and it contrasts with the fixed-scope release.
fixed-scope release	A fixed-scope release is one that must have a specific set of features, include the date on which the features are delivered and/or flexible costs, and contrasts with fixed-date release.
increment	An increment is a concrete stepping stone toward the product goal. Each increment is additive to all prior increments and thoroughly verified, ensuring that all increments work together. In order to provide value, the increment must be usable.

Term	Definition
incremental development	Nearly all Agile teams favor an incremental development strategy. In an Agile context, this means each successive version of the product is usable, and each builds upon the previous version by adding user-visible functionality. These are called "vertical" increments (that is, the difference between successive product versions), as opposed to the opposite strategy that successively delivers complete technical components; for instance, creating a database schema, then building business rules on top of that, and only then implementing a UI.
information radiator	Information radiator is a popular term invented by Alistair Cockburn that is used to describe any artifact that conveys project information and is publicly displayed in the workspace or surroundings. Information radiators are very popular in the Agile world, and they are an essential component of visual management.
inspection	Scrum users must frequently inspect Scrum artifacts and progress toward a sprint goal to detect undesirable variances. Their inspection should not be so frequent that it gets in the way of the work. Inspections are most beneficial when diligently performed by skilled inspectors at the point of work.
iterative development	Agile projects are iterative insofar as they intentionally allow for "repeating" software development activities, and for potentially "revisiting" the same work products (the phrase "planned rework" is sometimes used; refactoring is a good example). They are iterative in a third, less-essential sense, in being most often structured around a series of iterations of fixed calendar length.
kanban	The <i>kanban</i> method is a product and systems thinking approach to improving the delivery of services to customers, as well as the environment in which those delivering the service operate and interact with one another.
minimally viable product (MVP)	A minimum viable product is, as Eric Ries said, the "version of a new product that allows a team to collect the maximum amount of validated learning about customers with the least effort."
MoSCoW method	"The MoSCoW method is a prioritization technique used in management, business analysis, project management, and software development to reach a common understanding with stakeholders on the importance they place on the delivery of each requirement; it is also known as the MoSCoW prioritization or MoSCoW analysis. The term MoSCoW itself is an acronym derived from the first letter of each of four prioritization categories (must have, should have, could have, and won't have), with the interstitial Os added to make the word pronounceable. While the Os are usually in lowercase to indicate that they do not stand for anything, the all-capitals MOSCOW is also used."
planning onion, Cohn's	Mike Cohn refers to multi-layer planning as the planning onion. At different layers of this planning onion, the project team focuses on varying level of details at different stages of the project. The planning onion helps teams choose the right level of planning for each timeframe for which they are planning, and has six levels – strategy, portfolio, release, iteration, daily, and continuous.
Planning Poker®	An approach used by Agile teams to establish the size of product backlog items that considers the relative effort to complete the work. It balances group thinking and individual thinking.
portfolio planning (portfolio management)	An activity for determining which products (or projects) to work on, in which order, and for how long

Term	Definition	
product	A product is a vehicle to deliver value. It has a clear boundary, known stakeholders, and well-defined users or customers. A product could be a service, a physical product, or something more abstract.	
product backlog	A prioritized list of new features, changes to existing features, bug fixes, infrastructure changes, or other activities that a team may deliver to achieve a specific outcome of a product. The product owner is the sole person responsible for managing the product backlog.	
product backlog item	 An item such as a feature, defect, or occasionally technical work that is valuable from the product owner's perspective. An item in the product backlog 	
product backlog refinement	Backlog grooming is when the product owner and some, or all, of the rest of the team refine the backlog on a regular basis to ensure the backlog contains the appropriate items, that they are prioritized, and that the items at the top of the backlog are ready for delivery.	
product goal	The product goal is the long-term objective for the Scrum team and is the commitment for the product backlog. It describes a future state of the product which serves as a target for the Scrum team to plan against.	
product owner	The product owner is a single individual who is accountable for maximizing the value of the product resulting from the work of the Scrum team and for effective product backlog management.	
product roadmap	A description of the incremental nature of how a product will be built and delivered over time, along with the important factors that drive each individual release. Useful when developing a product that will have more than one release	
product vision	A brief statement of the desired future state that would be achieved by developing and deploying a product. A good vision should be simple to state and pro¬vide a coherent direction to the people who are asked to realize it.	
release	 A combination of features that when packaged together make for a cohernent deliverable to customers or users A version of a product that is promoted for use or deployment. Releases represent the rhythm of business-value delivery and should align with defined business cycles. 	
risk	Risk is defined as an uncertain event or set of events that can affect the objectives of a project and may contribute to its success or failure.	
Scrum	A lightweight framework, in use since the early 1990s, that helps people, teams, and organizations generate value through adaptive solutions for complex problems.	
Scrum board	A Scrum board is used by the Scrum team to visibly plan and track progress during each sprint. The Scrum board contains columns to indicate the progress of the tasks from "to do" to "in progress" to the final "done" column for the tasks that have been completed.	
Scrum event	Prescribed events are used in Scrum to create regularity and to minimize the need for meetings not defined in Scrum. All events are time-boxed events, such that every event has a maximum duration. These include the sprint, sprint planning, daily Scrum, the sprint review, and the sprint retrospective. Each event in Scrum is a formal opportunity to inspect and adapt Scrum artifacts. These events are specifically designed to enable critical transparency and inspection.	
Scrum Master	The Scrum Master is accountable for establishing Scrum as defined in the Scrum Guide by helping everyone understand Scrum theory and practice, both within the Scrum team and the organization. The Scrum Master is also accountable for the Scrum team's effectiveness.	

Term	Definition
Scrum team	A team of 10 or fewer people that includes the developers, product owner, and the Scrum Master. The team is responsible for all product-related activities from stakeholder collaboration, verification, maintenance, operation, experimentation, research, and development. The entire team is accountable for creating a valuable, useful increment during every sprint.
Scrum values	When the values of commitment, courage, focus, openness, and respect are embodied and lived by the Scrum team, the Scrum pillars of transparency, inspection, and adaptation come to life and build trust for everyone. The Scrum team members learn and explore those values as they work with the Scrum events, roles, and artifacts. The successful use of Scrum depends on people becoming more proficient in living these five values.
self-management	Self-managing teams internally decide who does what, when, and how. This requires self-driven people who exhibit honesty and humility, trust and respect, and learning agility. There is a high level of collaboration and teamwork, and the team is committed to, and takes ownership of, achieving its goals.
sizing	Assigning a value to represent the effort required to complete a product backlog item to the definition of done
sprint	A sprint is the heartbeat of Scrum where ideas are turned into value. Sprints have a consistent duration of one month or less during which one or more "done", usable increments are created. A new sprint starts immediately after the conclusion of the previous sprint. During the sprint, no changes are allowed that would endanger the sprint goal.
sprint backlog	The sprint backlog is a plan by and for the developers created during the sprint planning event. It is a highly visible, real-time picture of the work the developers plan to accomplish during the sprint to achieve the sprint goal.
sprint burn-down and burn-up charts	Burn-down charts and burn-up charts track the amount of output (in terms of hours, story points, or backlog items) a team has completed across an iteration or a project.
sprint demo	 An activity of a sprint review where the completed (done) product backlog items are demonstrated with the goal of promoting an information rich discussion between the Scrum team and other sprint review participants. A term that is frequently used synonymously to refer to the entire sprint review
sprint goal	The sprint goal is the single objective for the sprint, created during the sprint planning event, that represents the commitment for the sprint backlog. It is added to the sprint backlog and serves to create coherence and a focus for the team, as well as providing flexibility in terms of the exact work needed to achieve it.
sprint planning	The sprint planning meeting initiates the sprint by laying out the work to be performed during the sprint by addressing three topics: 1) why the sprint is valuable; 2) what work can be done in the sprint; and 3) how the chosen work will get done. It is timeboxed to eight hours and the entire Scrum tear collaborates on creating the plan for the sprint.
sprint retrospective	The sprint retrospective, at most a three-hour meeting, is an opportunity for the Scrum team to inspect itself and create a plan for improvements that will increase quality and effectiveness. The sprint retrospective occurs afte the sprint review and prior to the next sprint planning.
sprint review	A sprint review, the second-to-last event in a sprint, is held at the end of the sprint to inspect the outcome of the sprint and determine future adaptations. The Scrum team presents the results of their work to key stakeholders and progress toward the product goal is discussed. As a critical inspect and adapt activity, the review helps the team to collaborate with stakeholders and customers, and to gather feedback.

Term	Definition
stakeholders	Stakeholders are people who affect or are affected by your project. Internal stakeholders are within your company or organization; they could be from the legal, sales, marketing, management, procurement, and/or any other division of your company. External stakeholders could be investors or users.
story point	Story points are a unit of measure for expressing the size of the overall effort that will be required to fully implement a product backlog item or any other piece of work. Product backlog items such as stories, are usually sized with story points. This is usually based on the Fibonacci sequence or t-shirt sizes.
sustainable pace	The team aims for a work pace they would be able to sustain indefinitely. This entails a firm refusal of what is often considered a "necessary evil" in the software industry – long work hours, overtime, or even working nights or weekends. As such, this "practice" is really more of a contract negotiated between the team and their management.
task board	This is an information radiator used during the sprint execution to communicate the progress and flow of task-level work within a sprint and ensures an efficient dissemination of relevant information to the entire team; also called the Scrum board or kanban board.
three pillars	Scrum uses the empirical process control that relies on the three pillars of transparency, inspection, and adaptation.
timebox/timeboxing	A timebox is a previously agreed period of time during which a person or a team works steadily toward the completion of some goal. Rather than allow work to continue until the goal is reached and evaluating the time taken, the timebox approach consists of stopping work when the time limit is reached and evaluating what was accomplished.
transparency	Significant aspects of the process must be visible to those responsible for the outcome. Transparency requires those aspects be defined by a common standard, so observers share a mutual understanding of what is being seen. For example, those performing the work and those inspecting the resulting increment must share a common definition of "done".
triangulation	Sizing using triangulation requires two reference stories, one small and one large, for comparison. It results in more accurate sizing.
user stories	In consultation with the customer or product owner, the team divides up the work to be done into functional increments called "user stories." Each user story is expected to yield, once implemented, a contribution to the value of the overall product, irrespective of the order of implementation; these and other assumptions as to the nature of user stories are captured by the INVEST formula.
velocity	Velocity is a measure for how much planned work gets completed during a sprint. At the end of each iteration, the team adds up sizes/story points associated with user stories that were completed during that iteration. Knowing velocity, the team can project/forecast how long the project will take to complete, based on the sizes of the remaining user stories and assuming that the velocity over the remaining iterations will remain approximately the same.
visual management	The practice of using information visualization techniques to manage work. A simple example is using sticky notes on a wall to manage a list of tasks, a better (and more complex) example is <i>kanban</i> .

GLOSSARY RESOURCES

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