

Engenharia de Software (14341, 16230, 15386)

L02: SCRUM Certification Workshop

L02

Practical Lab #2 SCRUM Certification Workshop Agile Principles in Practice

Agile Teams
Build Better
Software



PLAN
INSPECT
ADAPT
DELIVER



Today's Competency Readiness Indicators

By the end of this lab, you will be better able to:



Understand Agile principles and values

Explain the Agile Manifesto and how its principles support software development.



Recognize and apply SCRUM roles

Understand the responsibilities of the Product Owner, Scrum Master and Development Team.



Plan and manage work iteratively

Use Scrum events (Sprint Planning, Daily Scrum, Sprint Review, Sprint Retrospective) to organize and track work.



Manage and prioritize a Product Backlog

Create, refine and prioritize backlog items using techniques such as user stories and acceptance criteria.



Collaborate effectively in a Scrum team

Communicate, share information and work collaboratively to achieve team goals.



Monitor progress and adapt

Use simple metrics (e.g., burndown charts) to inspect progress and propose improvements.



Develop a mindset for continuous improvement

Reflect on team performance and identify actionable improvements.



Prepare for professional practice

Understand how Scrum practices are applied in real-world software engineering environments.

Related SFIA Competencies (main areas)

METL

Methods and Tools

CPRO

Project Management

RLMT

Stakeholder Relationship Management

PROF

Professional Development

PEOPLE | IDEAS | IMPACT



PART 1 – SCRUM WARM-UP (15 min)

Refresh the key Scrum concepts before taking the certification.

Work: Individual



GOAL: Recall the main Scrum concepts and prepare for the certification.



QUICK QUIZ

Answer the following questions. Choose the best option.



15 questions – 1 minute each

1. Who is accountable for maximizing the value of the product?
 - A. Scrum Master
 - B. Product Owner
 - C. Development Team
 - D. Stakeholders
2. Who estimates the effort for Product Backlog items?
 - A. Product Owner
 - B. Scrum Master
 - C. Development Team
 - D. Stakeholders
3. Can the Sprint Goal change during the Sprint?
 - A. No
 - B. Yes, if the team agrees
 - C. Yes, at any time
 - D. Yes, with PO approval
4. What is the main purpose of the Sprint Review?
 - A. Plan the next Sprint
 - B. Assign work
 - C. Identify risks
 - D. Inspect the Increment and adapt the Product Backlog
5. Which Scrum event is time-boxed to a maximum of 15 minutes?
 - A. Sprint Planning
 - B. Daily Scrum
 - C. Sprint Review
 - D. Sprint Retrospective
6. Who has the authority to cancel a Sprint?
 - A. Product Owner
 - B. Scrum Master
 - C. Development Team
 - D. Stakeholders
7. When is an Increment considered "Done"?
 - A. When the team finishes the work
 - B. When the Product Owner accepts it
 - C. When it meets the Definition of Done
 - D. After the Sprint Review
8. What is the main purpose of the Sprint Planning event?
 - A. Review progress and performance
 - B. Inspect the Increment
 - C. Change the Product Backlog
 - D. Plan the work for the next Sprint

9. Which artifact is ordered by value to the customer?
 - A. Sprint Backlog
 - B. Product Backlog
 - C. Burndown Chart
 - D. Increment
10. What should the Development Team do if they cannot meet the Sprint Goal?
 - A. Extend the Sprint
 - B. Cancel the Sprint
 - C. Adapt the plan and continue toward the Goal
 - D. Inform stakeholders and reset the Goal
11. How often should the Scrum Team deliver a potentially releasable Increment?
 - A. Once a year
 - B. Only when requested
 - C. At least once every Sprint
 - D. At the end of each phase
12. Who owns and manages the Product Backlog?
 - A. Scrum Master
 - B. Development Team
 - C. Stakeholders
 - D. Product Owner
13. Which event is used to inspect and adapt the way the Scrum Team works together?
 - A. Sprint Retrospective
 - B. Daily Scrum
 - C. Sprint Review
 - D. Sprint Planning
14. What is the primary responsibility of the Development Team?
 - A. Manage the Product Backlog
 - B. Create the Increment
 - C. Ensure stakeholder satisfaction
 - D. Estimate the effort
15. What best describes the Definition of Done?
 - A. A list of features to be developed
 - B. A forecast of delivery dates
 - C. A shared understanding of quality
 - D. A tool to estimate the work



REMEMBER

Scrum is built on:

- ✓ Transparency
- ✓ Inspection
- ✓ Adaptation
- ✓ Focus on delivering value



TIP

Think about these principles and the purpose behind each Scrum element when answering!

THE SCRUM FRAMEWORK



Great! Let's refresh our knowledge and get prepared for the certification!



15 minutes



PART 2 – SCRUM IN PRACTICE (20 min)

Let's apply Scrum concepts to a real-life scenario.



Work: Group discussion



SCENARIO

A university has decided to develop a new mobile app for students.

The app will allow students to check their class schedule, view exam dates and grades, receive important notifications, access academic resources, and contact support services.

The university wants to use Scrum to deliver the app in iterative and incremental way, involving the right people and focusing on delivering value.

Based on this scenario, discuss the following questions with your group.

1 Who would be the Product Owner?

- Explain who should represent the interests of the users and the university, and be responsible for maximizing the value of the product.

2 Who belongs to the Scrum Team?

- Identify the roles that are part of the Scrum Team and describe their main responsibilities.

3 Who are the stakeholders?

- List the main internal and external stakeholders of this project and why they are important.

4 What would be a good Sprint Goal?

- Propose a clear and measurable Sprint Goal for the first Sprint of this project.



Quick Discussion (5–7 min)

- Share your answers with the class.
- Compare different perspectives and learn from each other.

Remember: Focus on value, collaboration, and delivering useful increments!



PART 3 – SCRUM IN ACTION (20 min)

Plan, discuss and improve – a mini Scrum workshop.

 Work: Group exercise



GROUP EXERCISE

Work with your group to experience key Scrum activities for the university mobile app project. You will plan a Sprint, present and discuss your plan, and reflect on how to improve.

1

SPRINT PLANNING (10 min)

- Review the Product Vision and the Product Backlog (provided).
- Discuss the value and relative effort of each item.
- Select up to 4 items for the first Sprint.
- Define a clear Sprint Goal.
- Create the Sprint Backlog and justify your choices.

OUTPUT TO PRODUCE



Sprint Goal

(one clear statement)



Sprint Backlog

(selected items with justification)

2

SPRINT PLAN REVIEW (5 min)

- Each group briefly presents their Sprint Goal and selected items.
- Discuss and compare plans with the other groups.
- Receive questions and suggestions from the teacher and peers (acting as stakeholders).
- Reflect on the feedback and consider possible improvements.

OUTPUT TO PRODUCE



Brief plan presentation

(Sprint Goal and selected items)



Improvement suggestions

(insights from peers/teacher)

3

SPRINT RETROSPECTIVE (5 min)

- Discuss what went well, what didn't go well, and why.
- Agree on 1–3 improvement actions for the next Sprint.
- Focus on team collaboration, decision-making and use of Scrum.

OUTPUT TO PRODUCE



Improvement actions

(start / stop / continue)



PRODUCT BACKLOG ITEMS (examples)

- | | |
|--------------------------------|-------------------------------|
| 1. User registration and login | 5. Access academic resources |
| 2. View class schedule | 6. Contact support services |
| 3. View exam dates and grades | 7. Update personal profile |
| 4. Receive notifications | 8. Detect timetable conflicts |

Each item includes a short description and user value (no estimates required).

Your team can select **up to 4 items** for the first Sprint.



TIPS

- Focus on value for students.
- Be realistic with your team's capacity.
- Listen to others and be open to feedback.
- Use the Scrum principles as guidance.



PRESENT AND DISCUSS (optional, 1–2 min)

- Each group briefly shares their key takeaways.
- Compare approaches and discuss what was learned.
- Relate the exercise to real Scrum practice.

Remember: Inspect, Adapt, and Deliver Value in every Sprint!

SCRUM CERTIFICATION



SCRUM Certification

Test your SCRUM knowledge by taking the exam to obtain the Scrum Foundation Professional Certificate.

Link: <https://certiprof.com/pages/sfpc>

Select the option: **Version 2020 > English**

Successfully obtaining the Scrum Foundation Professional Certificate grants you **1 point**.
Good luck!

Before taking the test, practice here: <http://scrumquiz.org/#/scrum-master-practice-test>

Relevant information about SCRUM can be found here:

[Scrum Guide 2020](#)

This certificate is individual, and after obtaining it, each student must upload it to their corresponding **working group repository** by **September 28, 2026**.

QUESTIONS?

Let's clarify, explore and learn together!



Concepts

Anything you didn't understand?



Applications

How do we apply these ideas?



Decisions

Want to discuss any trade-offs?



Next Steps

What would you like to learn next?



No question is too small!

Your questions help everyone learn and grow.



Ask freely, challenge ideas, and let's build understanding **together!**