TECHNOLOGY

Caltech | Center for Technology & Management Education

Full Stack Java Developer

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Agile

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Scrum Methodology: Overview, Values, and Roles

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Learning Objectives

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

- Understand how scrum can help set up well-defined procedures
- Learn ways to optimize costs and align resources
- Understand the basics of creating an effective project plan
- Understand the need to plan and optimize the deliverables, resources, and timelines
- List the roles of the scrum master, product owner, and the development teams

A Day in the Life of a Full Stack Developer

You have been onboarded as an Agile Scrum Master in an organization, and you are given an ongoing project where you need to implement the Agile methodologies.

Since the organization is new to Agile methodology, you are supposed to explain the Agile values and roles of the stakeholders, including the product owner, the development team, and yourself and practice the same.

To do so, you decide to include all the stakeholders and explain to each of them their roles and responsibilities.

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Scrum Methodology

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Scrum Methodology

The scrum methodology is based on well-defined procedures and roles that should be included in the product development process.

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Scrum Methodology

It is a flexible strategy that compensates for using the twelve Agile standards.

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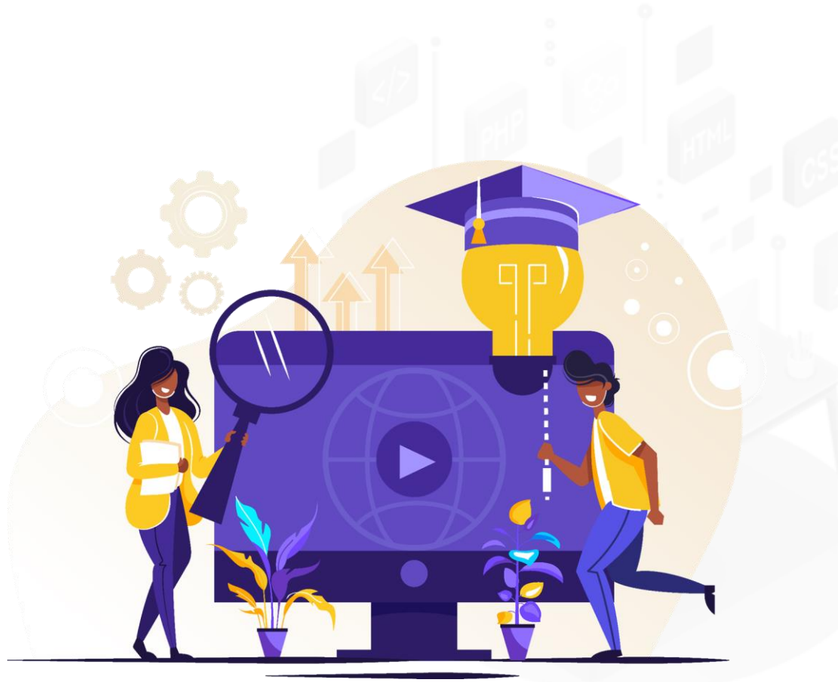
Scrum Methodology

Not only software development, but other sectors are also using scrum methodology.

Sales and marketing

HR



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Scrum Methodology

Scrum methodology is an effective methodology to implement and generates quick results.

Agility and flexibility

Quality

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Scrum Methodology

Objectives of project plan helps to determine:

Quality

Quick delivery

Lower costs

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Scrum Methodology

The first step involves writing the objectives or requirements to start with the project plan.

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The Concept of Sprints

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Sprints

Scrum executed in blocks that are short and periodic is referred as Sprints.

Sprints usually range from two to four weeks.

Sprint is the period used for reflection of the team deliverables.

Sprints create a variation of the final product.

Each Sprint provides a complete result.

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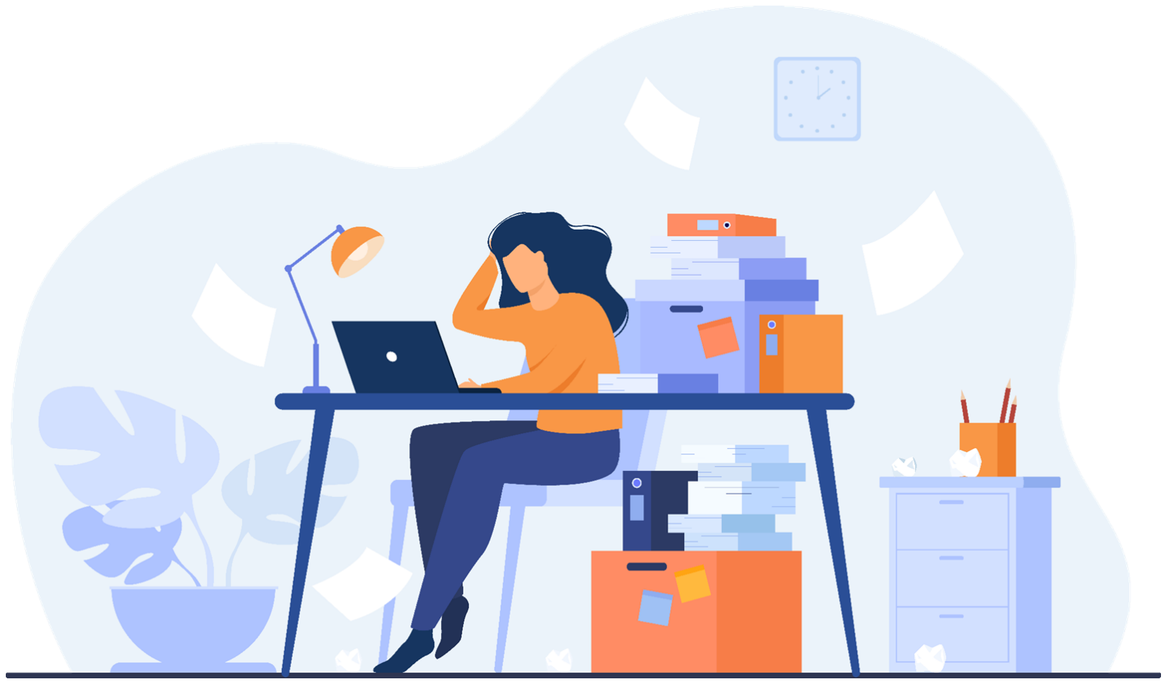
Sprints

Sprint is a one-time boxed iteration of a continuous development cycle.



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Role of a Scrum Master

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Roles of Scrum Master

The Scrum Master helps to eliminate any obstructions or hindrances to the plan and schedule of the team meeting the project goals.

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Roles of Scrum Master

The Scrum Master helps the team members understand and use the Scrum methodology effectively to improve:

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Roles of Scrum Master

The Scrum Master engages in:

Teaching the scrum process

Keeping the team morale high

Bringing in a new mindset

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Roles of Scrum Master

A Scrum Master ensures that the team members are perfectly trained and understand Agile software management.

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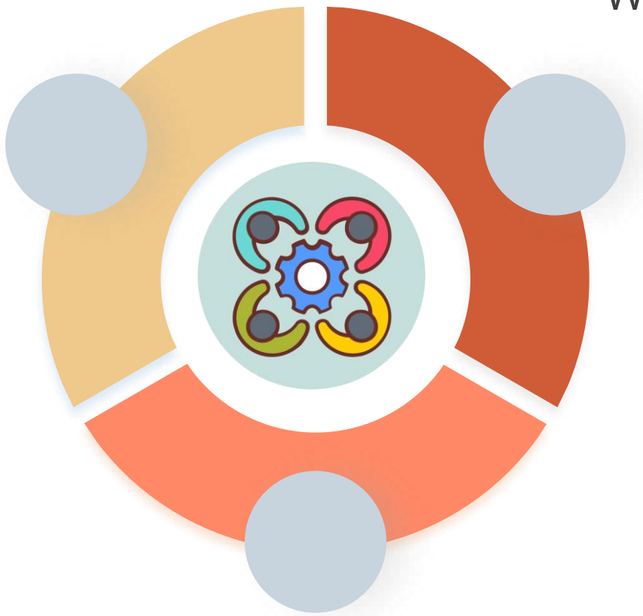
Roles of Scrum Master

A Scrum Master conducts meetings, popularly known as Daily Scrum or Stand-up.

What did they do yesterday?

What do they plan to do today?



What is impeding their progress?

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Roles of Scrum Master

Team members are asked for an estimate of how much time they need to complete tasks.

Track team progress

Observe any obstacles

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Roles of Scrum Master

A Scrum Master ensures that all the team members are present in the daily meeting.

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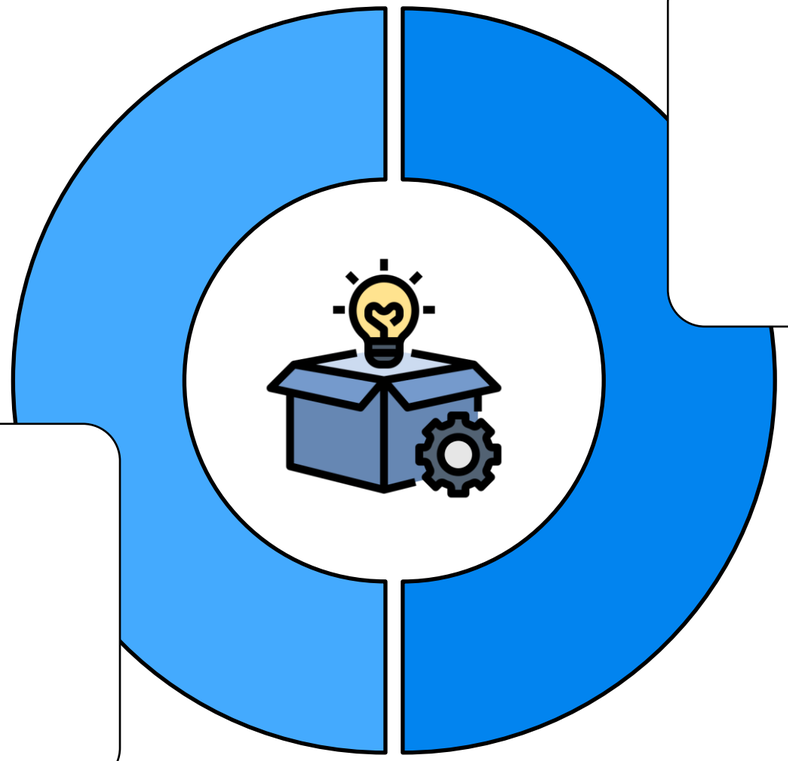
Roles of Scrum Master

A Scrum Master helps the Product Owner prioritize the product backlog.



Maintain product backlog

Operate product backlog

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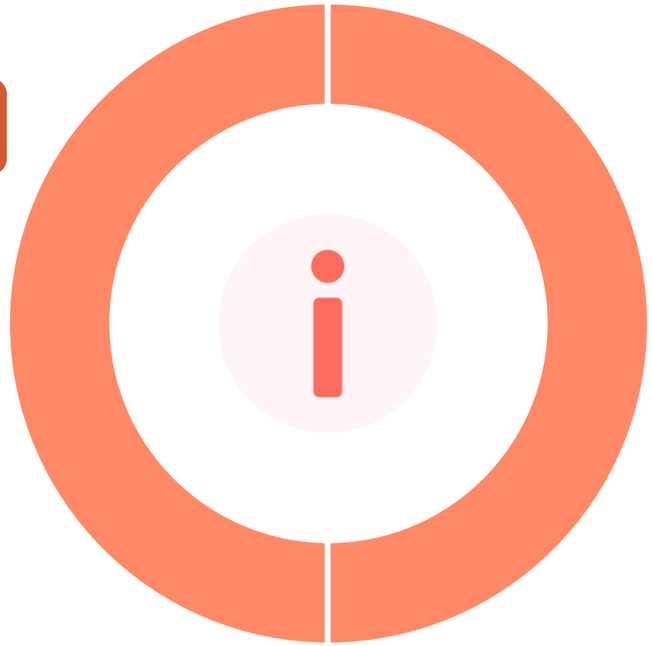
Roles of Scrum Master

The Scrum Master works with the Product Owner to maintain the items in the backlog with the information collected from the daily meetings.

Current status development needs



Meetings user stories

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Roles of Scrum Master

A Scrum Master eliminates roadblocks in a project.

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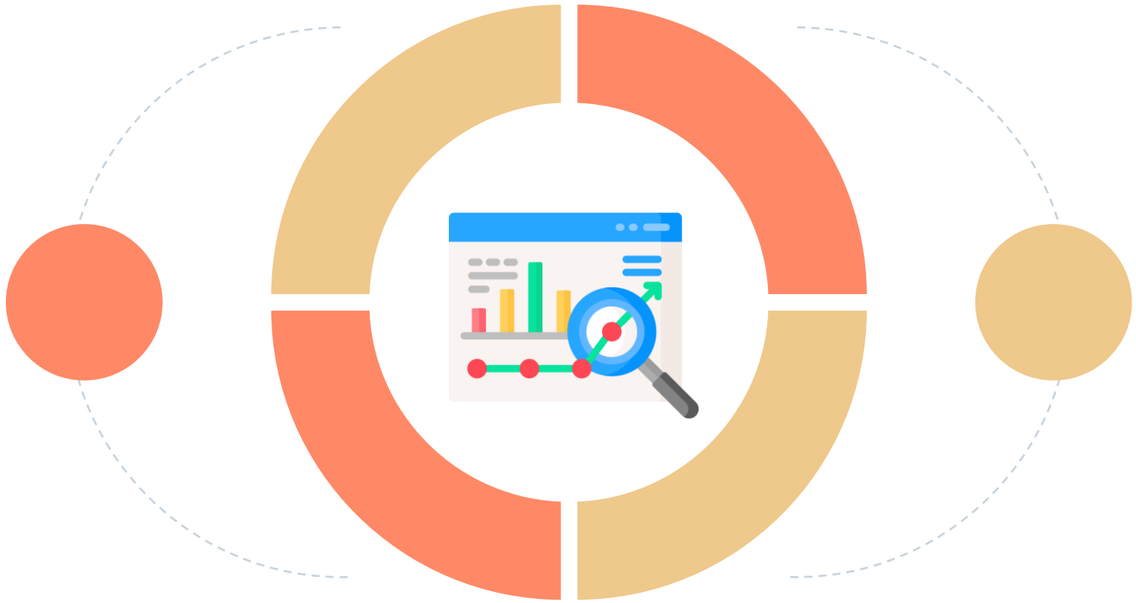
Roles of Scrum Master

Scrum Master can communicate with the other meeting organizers to analyze if they are actually needed for the meeting.

Works closely with the product owner



Redistributes the tasks

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Roles of Scrum Master

A Scrum Master is also a mentor and teacher to new employees and team members.

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Roles of Scrum Master

The Scrum Master invests time in mentoring the new team members and helping them understand:

Ensure that team members are in sync with the Scrum practices

Understand the product vision

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Roles of Scrum Master

Key responsibilities of a Scrum Master are:

- To ensure that the Product Owner and the development team work efficiently and effectively
- To implement the Scrum Framework in the team and organization
- To help the team practice Scrum principles and ideals
- To act as a change agent to help the team adopt the existing processes to increase the Scrum Team's productivity

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Roles of Scrum Master

Key responsibilities of a Scrum Master are:

- To protect the Scrum Team from outside interference and interruptions as they work on their committed deliverables.
- To remove roadblocks that prevent work from continuing
- To moderate scrum rituals
- To serve as a leader

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Roles of Scrum Master

The management and the Product Owner frequently attempt to add unplanned stories that impact the team's progress.

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Roles of Scrum Master

The Scrum Master's responsibility is to keep the Scrum Team from getting caught up in a misguided sense of urgency.

Responsibility

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Roles of Scrum Master

Members of the Scrum Team should focus solely on generating customer value.

Organizing support and resources

Doing hands-on work to assist scrum team members

The Scrum Master helps to remove any roadblocks that impact the team's progress and productivity.

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Roles of Product Owner

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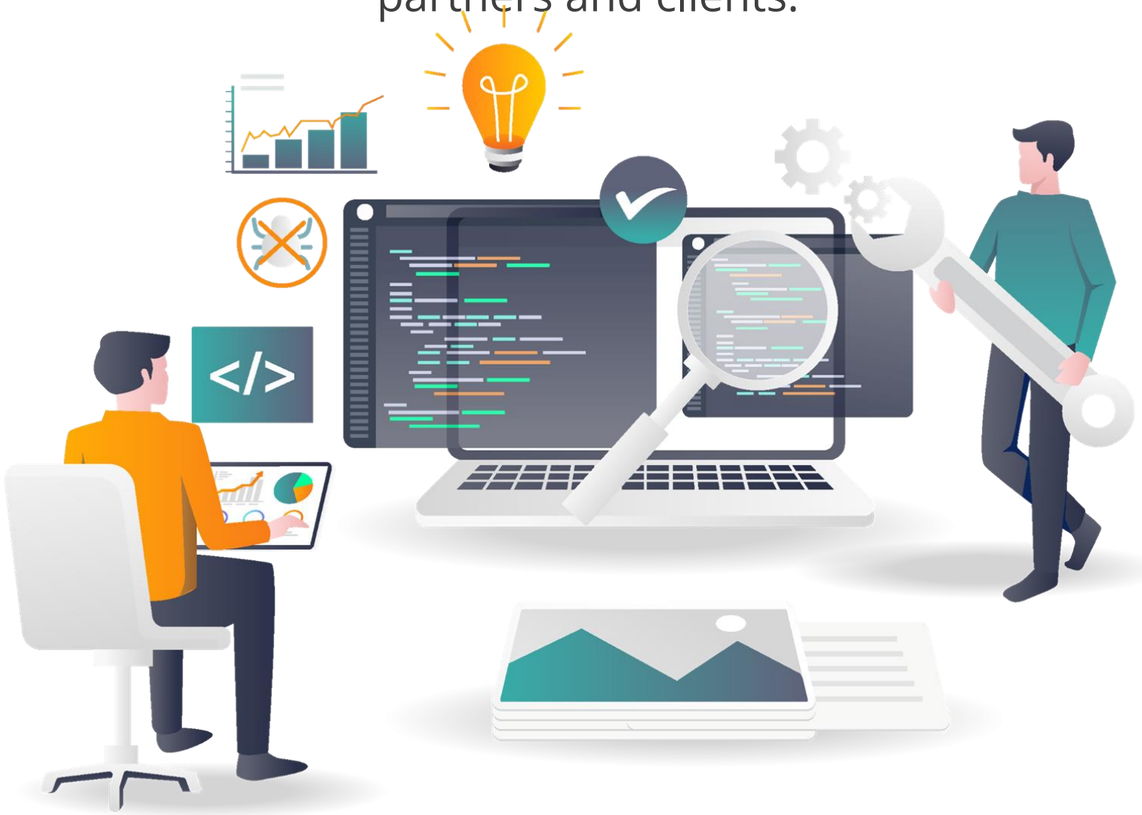
Roles of Product Owner

The Product Owner needs to examine the market information to plan and present the product vision to partners and clients.



The Product Owner acts as developer to help the team to meet the deliverables.

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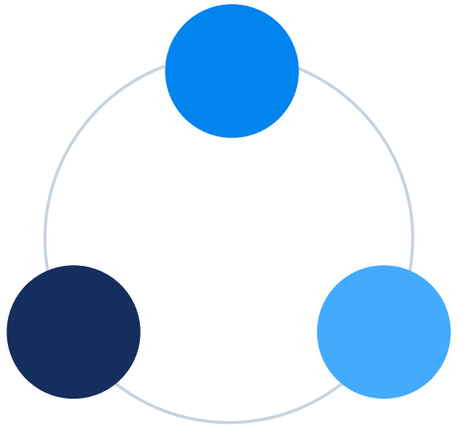
Roles of Product Owner

The Product Owner is a point of contact for the software development team.

A Product Owner defines the vision



Oversees the communication with the stakeholders across teams

Carry experience to create value for developing projects

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Roles of Product Owner

A Product Owner helps the team maintain a strong vision and empathy toward:

Process

Products

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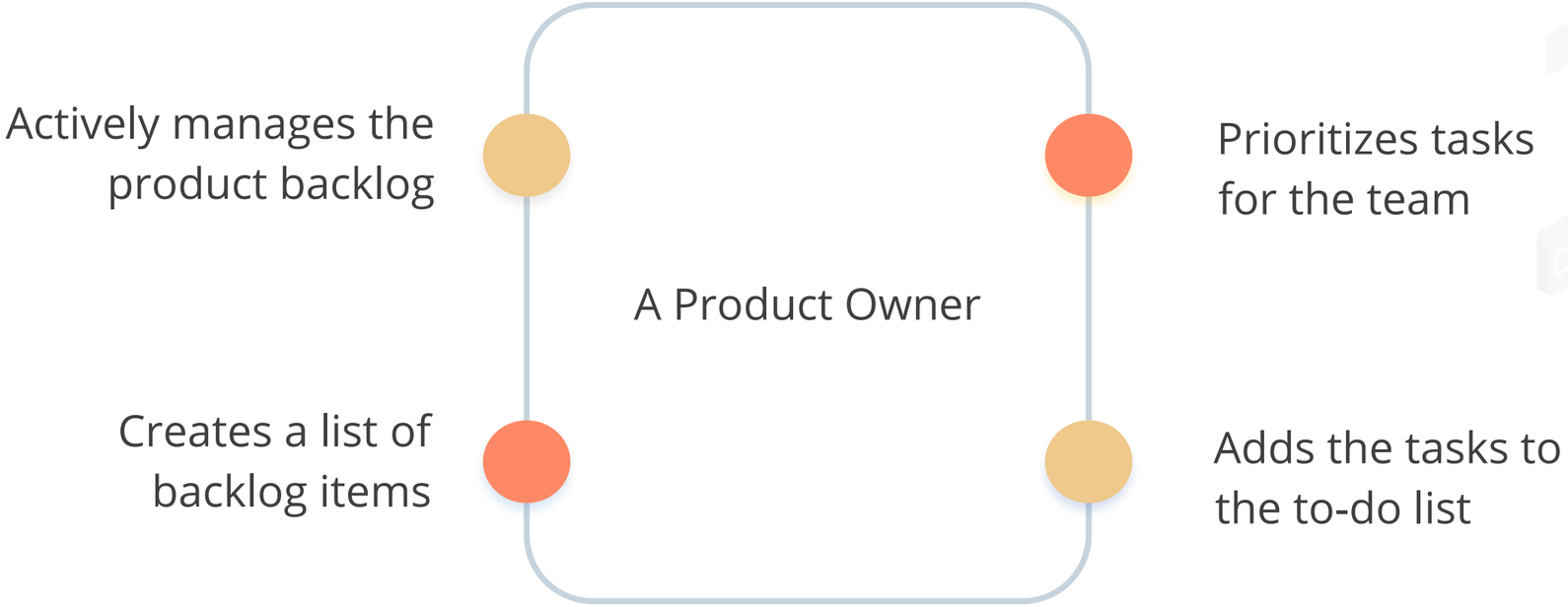
Roles of Product Owner

All stakeholders should inevitably be on the same page to work effectively.



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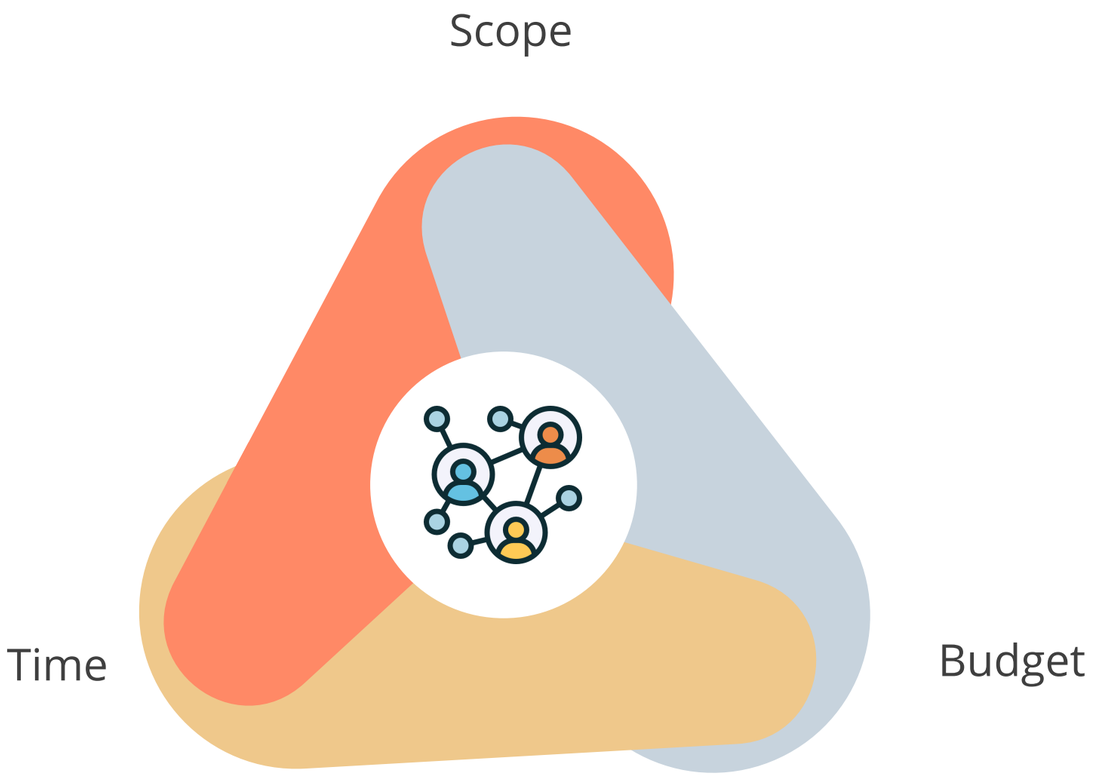
Roles of Product Owner

Product Owners need to set priorities per the requirements and objectives of stakeholders and the overall project.



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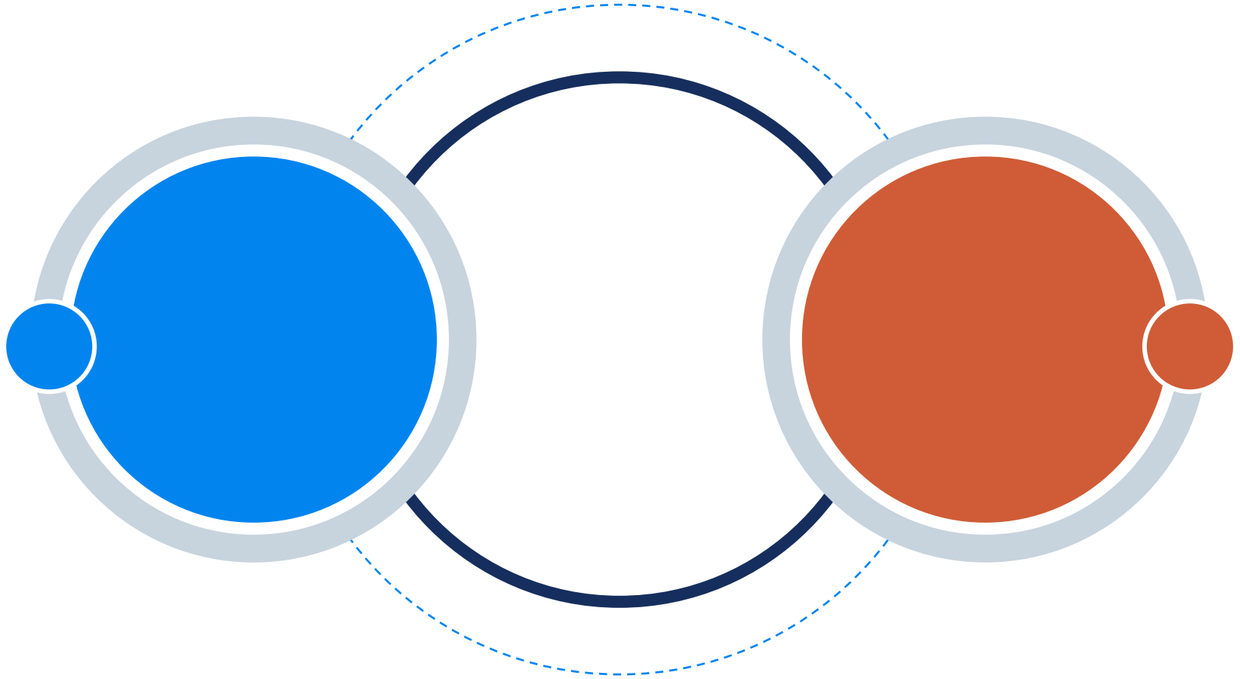
Roles of Product Owner

Product Owners will have to gauge the flexible areas with work and then determine:

Every iteration



Product element

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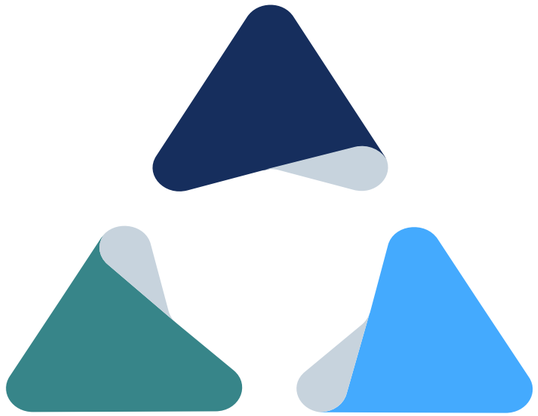
Roles of Product Owner

Product Owner oversees the development stages.

Vision



Software needs set

Procedure

They are central to every occasion, including arranging, refinement, and surveying.

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Roles of Product Owner

During the arrangement stages, the nimble item proprietor works with partners to recognize and coordinate the means needed for the following cycle:

Meet with their team to refine the cycle

Distinguish regions for development

Back the sprint

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Roles of Product Owner

A Product Owner is an expert in understanding the client's needs and managing the development process effectively.

Effective communication skills

Good market analysis

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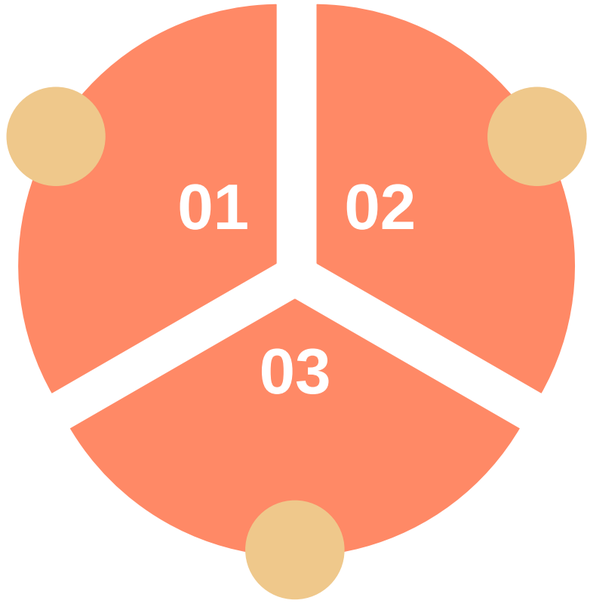
Roles of Product Owner

Roles of Product Owner are:

Acts as a primary liaison



Acts as a bridge between the stakeholders and the teams

Evaluates the product progress at each iteration

A Product Owner is responsible for every step of the development process and the final product release.

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Roles of Product Owner

The Product Owner conveys to the team whether the team must go back and rework or move to the next stage of the development.

Analyzing the progress of the product

Measuring the progress of the product

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Roles of Development Team

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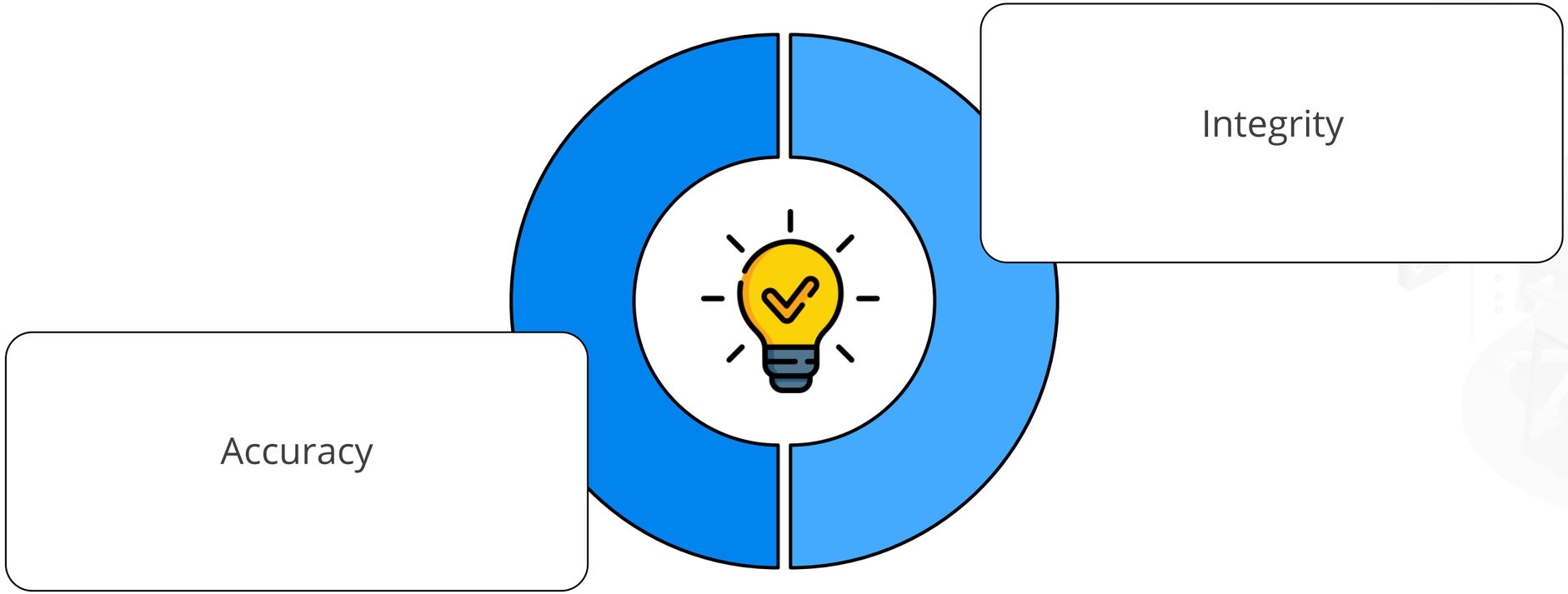
Roles of Development Team

Development team promotes the idea that system components should not blindly trust each other.



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Roles of Development Team

A development team is responsible for executing a Sprint.

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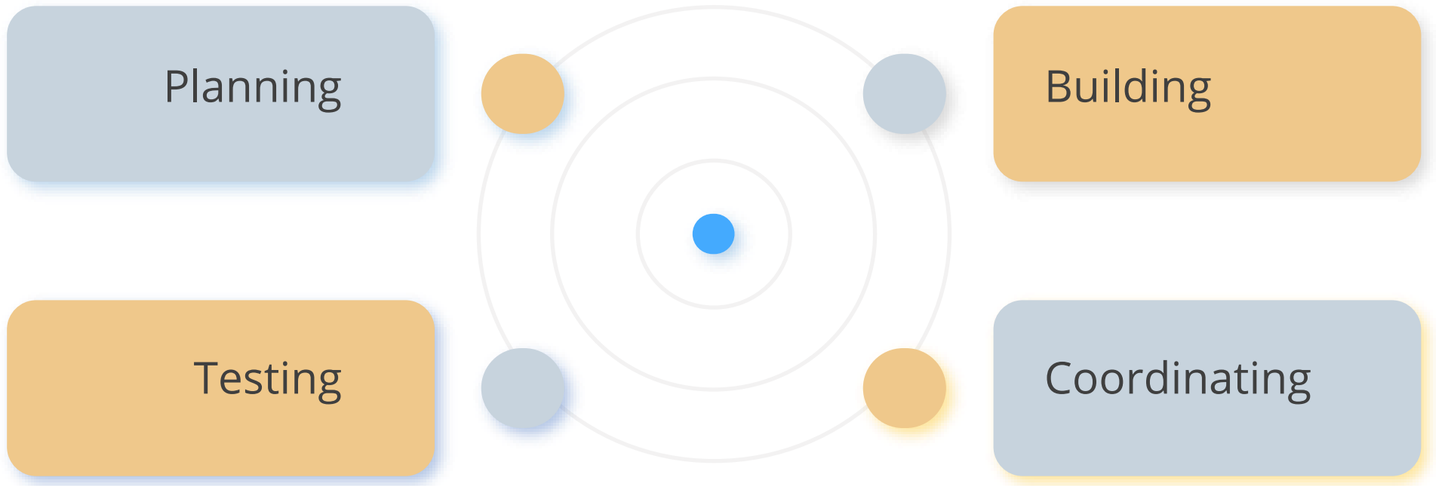
Roles of Development Team

After Sprint planning meeting, the team gets a Sprint backlog and an objective that is expected to execute.



The development team shoulders the responsibilities and suggests how to deal with the task.

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Roles of Development Team

Scrum group takes an interest in the daily Scrum meeting and examines the development toward meeting the objective.

It permits them to guarantee there are no curve balls toward the finish of the Sprint.

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Roles of Development Team

A development team is also responsible for grooming the product backlog.

Refining

Assessing

Prioritizing

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Roles of Development Team

The team is equally responsible for planning the Sprint together with the Scrum Master.

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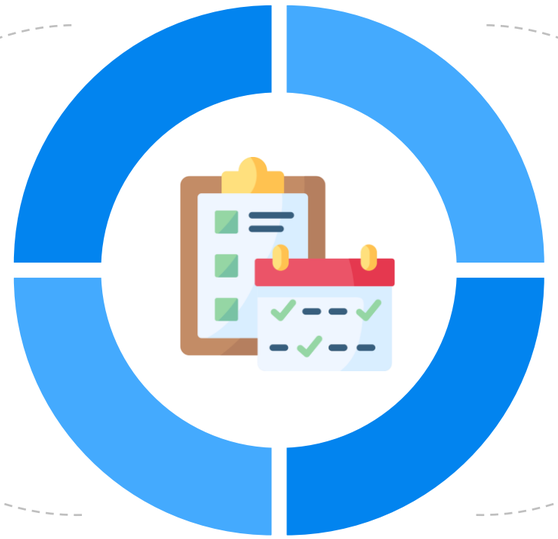
Roles of Development Team

The development team is part of all Sprint Planning meetings alongside the Product Owner and Scrum Master. They discuss the:

Progress



Concerns

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Roles of Development Team

The development team also helps the Product Owner in formulating the objective or goal of Sprint.

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Roles of Development Team

The development team communicates their necessities to the Product Owner.

The number of stories

The points

It is generally finished by allotting stories focused on every level of development.

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Roles of Development Team

A development team should also inspect and adapt to products and processes at the end of the milestone.

Inspect

Sprint review

Adapt

Sprint retrospective

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Roles of a Scrum Master

Problem Statement:

You are working as an Agile Scrum Master and have been asked to explain the roles of a Scrum Master with an example.

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Key Takeaways

- Scrum is executed in blocks that are short and periodic.
- The Scrum Master helps to eliminate any obstructions to the plan and schedule of the team.
- Scrum Product Owner starts to lead the pack in numerous phases of software development.
- The development team is part of all Sprint Planning meetings alongside the Product Owner and Scrum Master.

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Thank You

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