UNDERSTANDING AGILE APPROACHES

Agile Approaches

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Agile Approaches

LEAN	
AGILE	**KANBAN**

Within AGILE:

➔ SCRUM

➔ EXTREME PROGRAMMING (XP)

➔ CRYSTAL

➔ SCRUMBAN

➔ FEATURE-DRIVEN DEVELOPMENT

➔ DYNAMIC SYSTEMS DEVELOMENT (DSDM)

➔ OTHERS (Scaled Agile Framework, Disciplined Agile Delivery, DevOps, Adaptive Software Development, etc.)

UNDERSTANDING AGILE APPROACHES

Lean

UNDERSTANDING AGILE APPROACHES

Lean

Lean Manufacturing (Lean Production)

→ Derived from Toyota's operating model

Lean Agile Project Management

→ We need to eliminate the processes not providing any business value

7 Lean Principles:
1) Eliminate Waste
2) Amplify Learning
3) Decide As Late As Possible
4) Deliver As Soon As Possible
5) Empower the Team
6) Build Quality In
7) Optimize the Whole

- Continuous Improvement
- Customer Requirements
- Visual Management Tools

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1) Eliminate Waste
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7 Wastes of Lean:
1) Partially Done Work
2) Extra Processes
3) Extra Features
4) Task Switching
5) Waiting
6) Handovers (Motion)
7) Defects

- Continuous Improvement
- Customer Requirements
- Visual Management Tools

UNDERSTANDING AGILE APPROACHES

Kanban

UNDERSTANDING AGILE APPROACHES

Kanban

Kanban (Signboard, Billboard, Cards you can see)

To Do	In Progress	Completed
New Instagram Ad Campaign to Launch		
Prepare New Social Media Visuals		
New Video Demo for the Software		
New Blog Post: How to Use the Software?		

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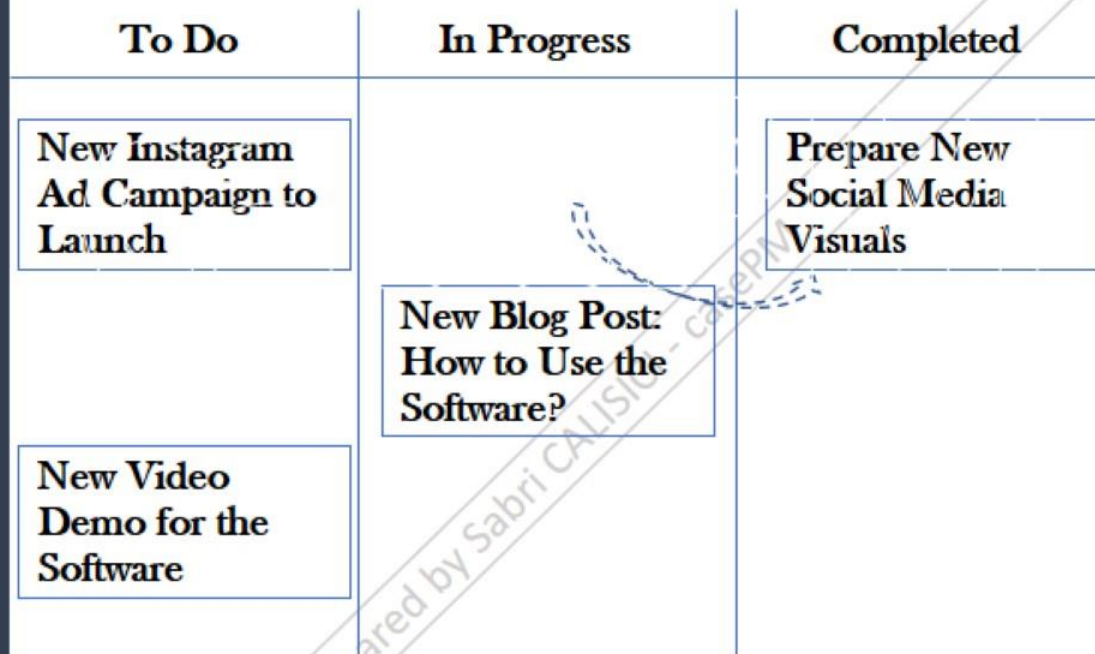
To Do	In Progress	Completed
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New Video Demo for the Software		

UNDERSTANDING AGILE APPROACHES

Kanban

Kanban (Signboard, Billboard, Cards you can see)

To Do	In Progress ③	Completed
New Instagram Ad Campaign to Launch		Prepare New Social Media Visuals
	New Blog Post: How to Use the Software?	
New Video Demo for the Software		

- The items are 'pulled' by team members, not 'pushed' by their executives
- The items are pulled just-in-time
- The number of works in progress can be limited
- Kanban can be displayed in the **Information Radiator**

Information Radiator: A display used for providing visual information by using charts, graphs, etc.

UNDERSTANDING AGILE APPROACHES

Kanban

Kanban (Signboard, Billboard, Cards you can see)

To Do	In Progress 3	Completed
New Instagram Ad Campaign to Launch		Prepare New Social Media Visuals
	New Blog Post: How to Use the Software?	
New Video Demo for the Software		
Policies	**Policies**	**Policies**

- The items are 'pulled' by team members, not 'pushed' by their executives
- The items are pulled just-in-time
- The number of works in progress can be limited
- Kanban can be displayed in the Information Radiator
- Timeboxes are NOT used in Kanban
- We need to have clear policies in Kanban
- Collaboration and experimental environment should be improved

UNDERSTANDING AGILE APPROACHES

Kanban

Properties of Kanban

- The workflow needs to be visualized
- The policies should be clear
- The collaborative environment should be improved
- Work in progress should be limited
- It is the workflow we manage
- There should be feedback loops

Some Principles

- To apply Kanban, we start with the current conditions
- We desire incremental change and continuous improvement
- We need to respect the existing environment
- We need to support and encourage leadership

Advantages of the Kanban Method

- Kanban reduces waste
- It increases efficiency, productivity and quality
- It attracts the team members' focus on the work they do
- It helps team members to focus on completed deliverables
- It prevents team members from being overloaded and provides a more 'homogenized' workload
- It provides flexibility

UNDERSTANDING AGILE APPROACHES

Scrum 1/2

UNDERSTANDING AGILE APPROACHES

Scrum

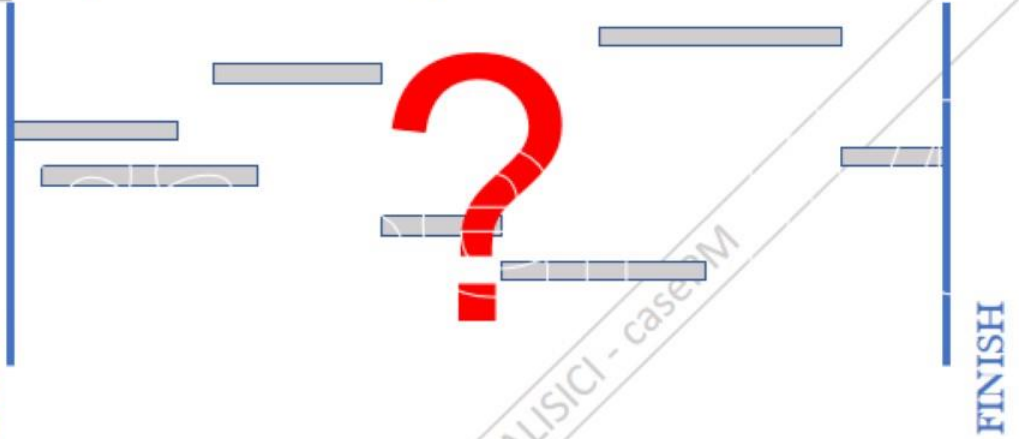Scope is clear in **Predictive** environments.

START

FINISH

UNDERSTANDING AGILE APPROACHES

Scrum

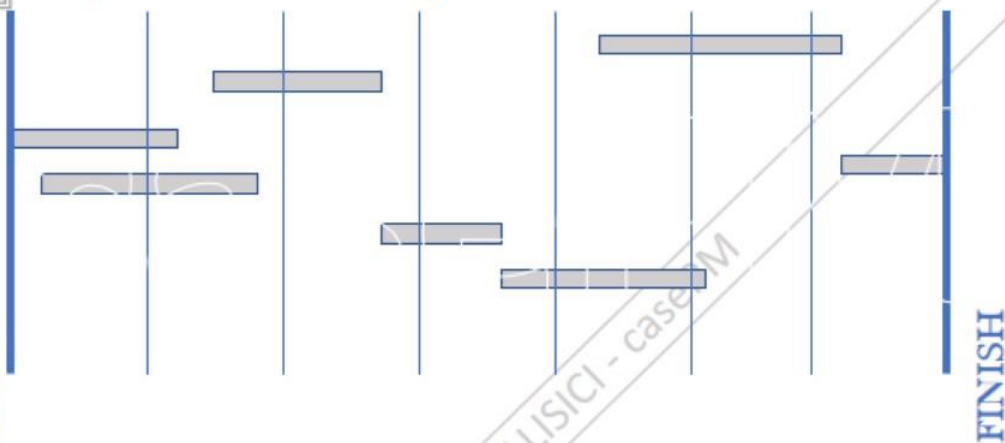Scope is **NOT** clear in **Agile** environments.

START

FINISH

?

UNDERSTANDING AGILE APPROACHES

Scrum

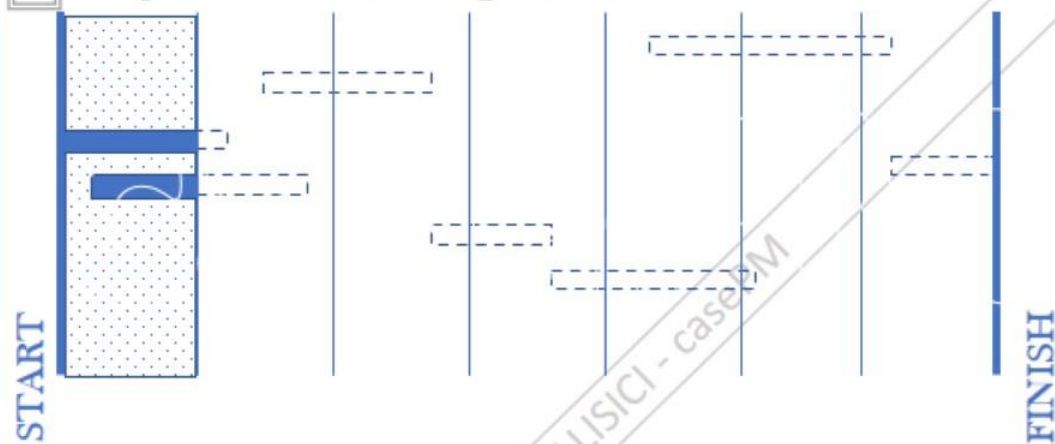Scope is **NOT** clear in **Agile** environments.

START

FINISH

→ **Timeboxes:** Predetermined durations.

UNDERSTANDING AGILE APPROACHES

Scrum

Scope is **NOT** clear in **Agile** environments.

START
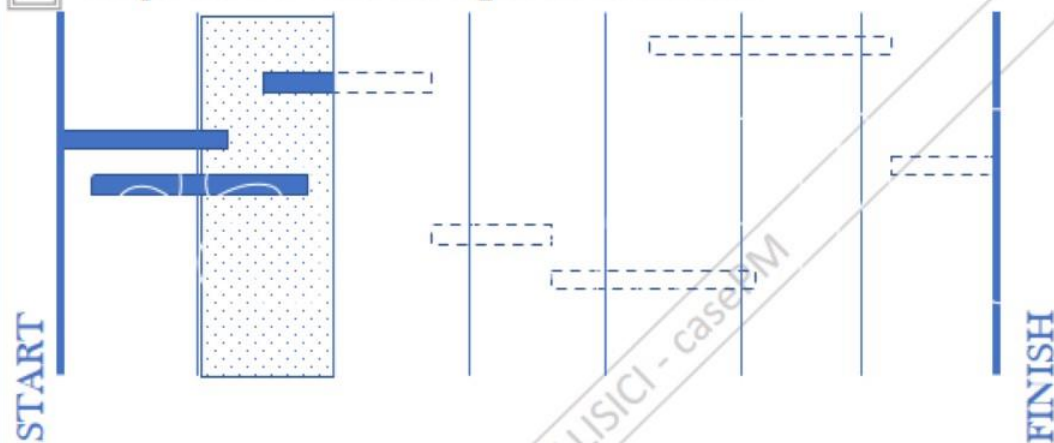
FINISH

→ **Timeboxes:** Predetermined durations.

UNDERSTANDING AGILE APPROACHES

Scrum

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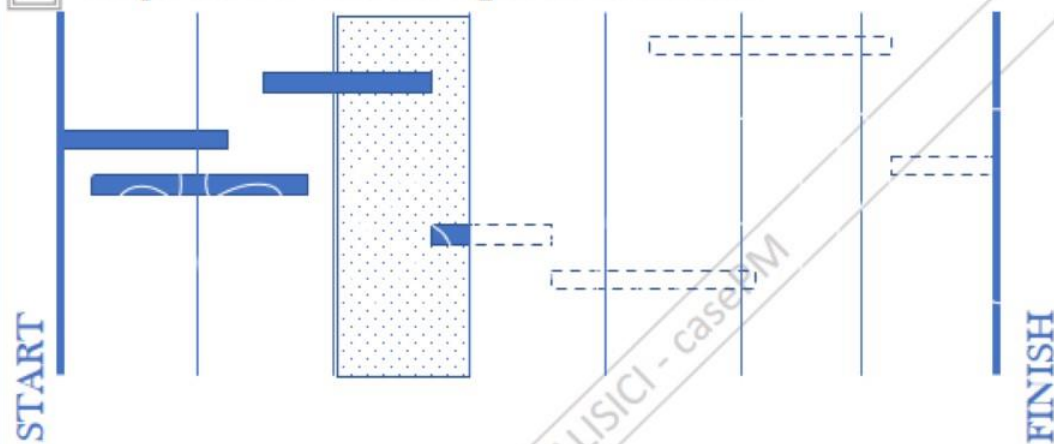
START

FINISH

➜ **Timeboxes:** Predetermined durations.

UNDERSTANDING AGILE APPROACHES

Scrum

Scope is **NOT** clear in **Agile** environments.

START

FINISH
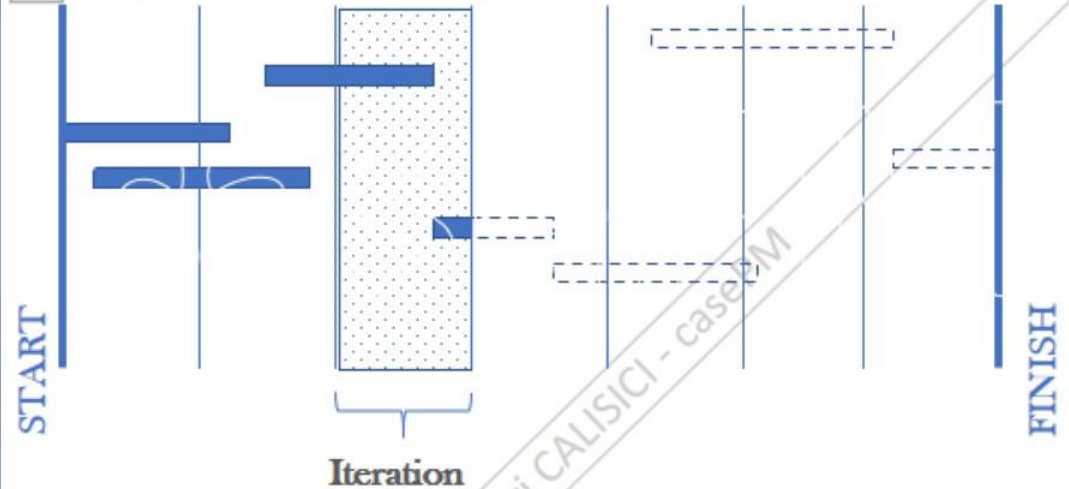
➔ **Timeboxes:** Predetermined durations.

UNDERSTANDING AGILE APPROACHES

Scrum

Scope is **NOT** clear in **Agile** environments.

Iteration

➔ **Timeboxes:** Predetermined durations.

UNDERSTANDING AGILE APPROACHES

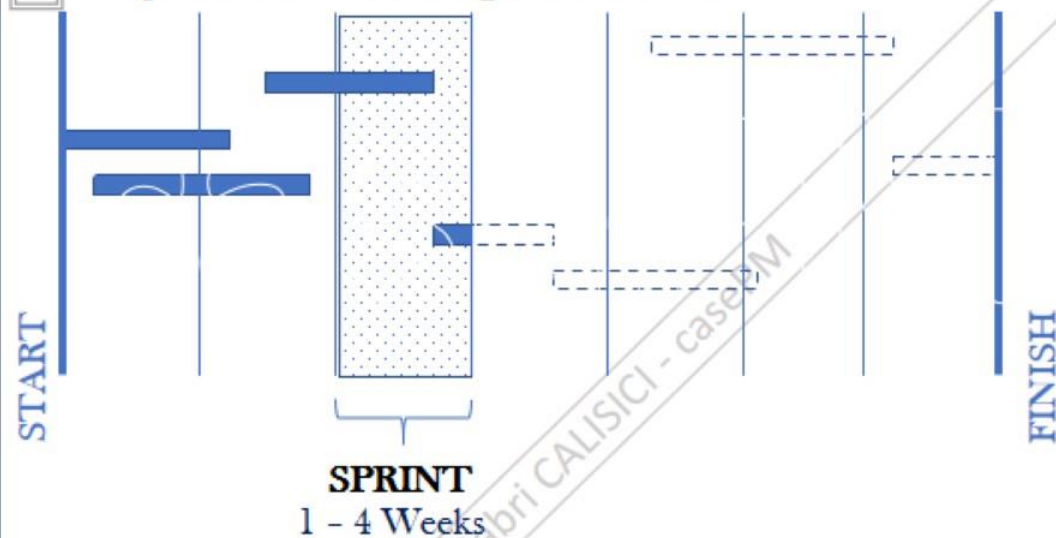## Scrum

Scope is **NOT** clear in **Agile** environments.

START

SPRINT
1 – 4 Weeks

FINISH

➜ **Timeboxes:** Predetermined durations.
➜ **Sprint:** The specific term used in Scrum for timeboxed events (iterations).

UNDERSTANDING AGILE APPROACHES

Scrum

UNDERSTANDING AGILE APPROACHES
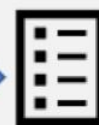
Scrum
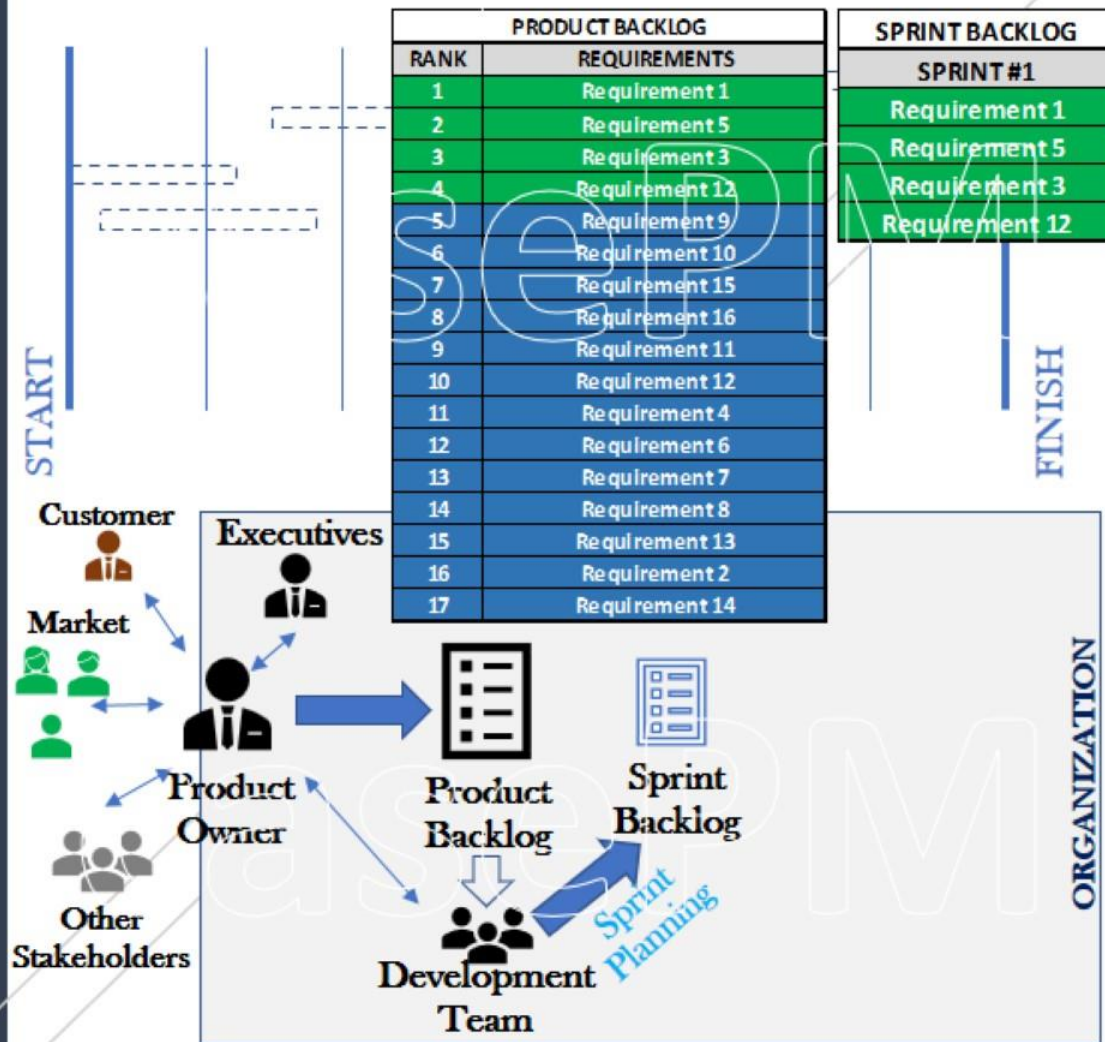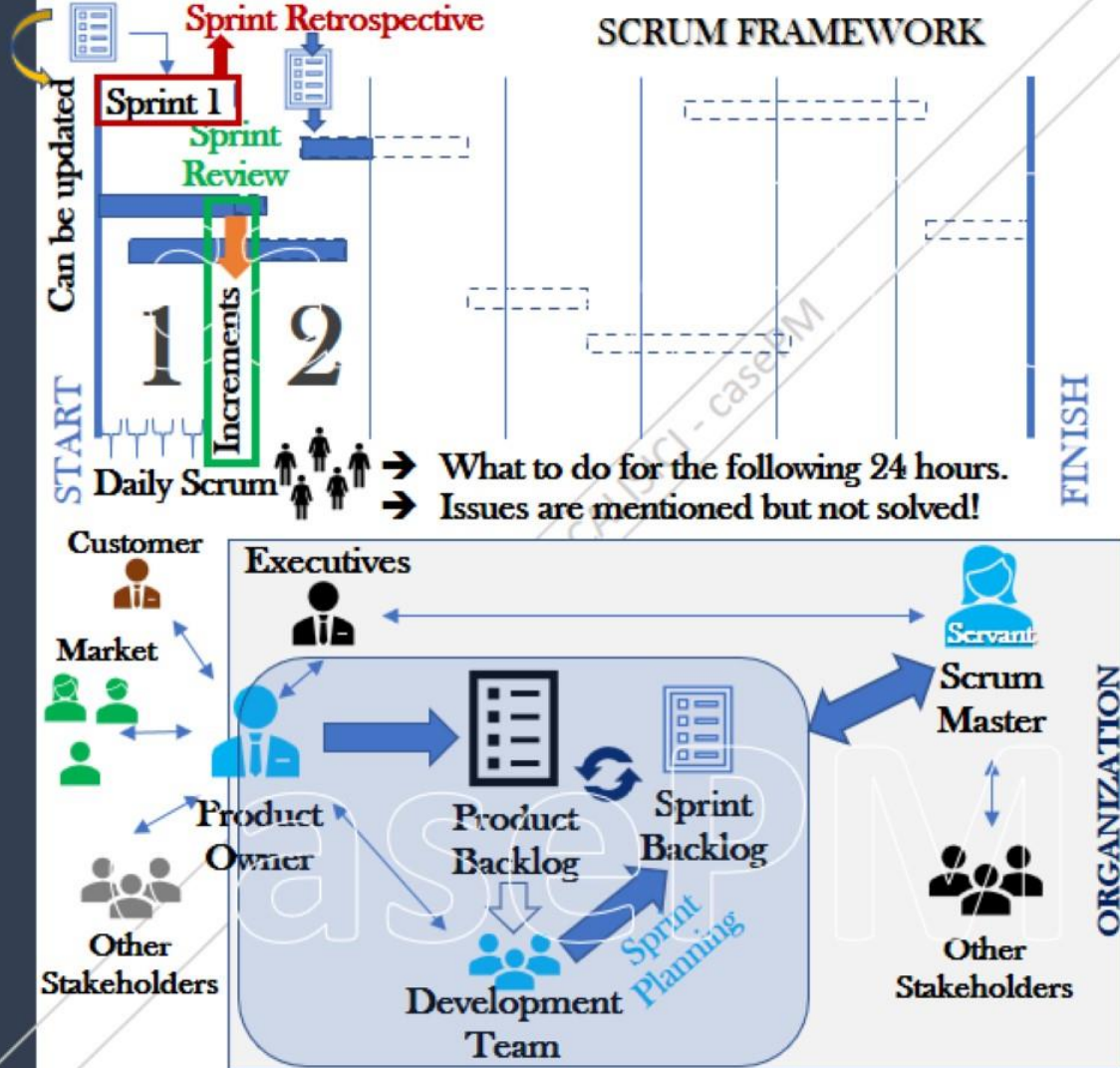
UNDERSTANDING AGILE APPROACHES

Scrum

UNDERSTANDING AGILE APPROACHES

Scrum 2/2

UNDERSTANDING AGILE APPROACHES

Scrum

While applying the Scrum, consider:

→ **Transparency:** Processes and outcomes should be clearly visible to everyone.
→ **Inspection:** The processes and outcomes should be inspected continuously.
→ **Adaptation:** Everything can be changed.

Artifacts: Things representing work or value.

- **Product Backlog**
- **Sprint Backlog**
- Increments

PRODUCT BACKLOG	
RANK	REQUIREMENTS
1	Requirement 1
2	Requirement 5
3	Requirement 3
4	Requirement 12
5	Requirement 9
6	Requirement 10
7	Requirement 15
8	Requirement 16
9	Requirement 11
10	Requirement 12
11	Requirement 4

SPRINT BACKLOG
SPRINT #1
Requirement 1
Requirement 5
Requirement 3
Requirement 12

Requirement → STORY

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STORY

"As a/an........., I want to......... So that..............."

"**As an** Admin, **I want to** see all the customers and their email addresses in a list, **so that** I can reach them easily any time I need."

"**As a** Customer, **I want to** find the contact information of the application owner everywhere in the app, **so that** I can ask questions anytime I wish."

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- Product Backlog
- Sprint Backlog
- Increments

Provide transparency for Inspection and Adaptation purposes.

UNDERSTANDING AGILE APPROACHES

Scrum

The Roles of the Scrum Team Members

- **Product Owner**
- Development Team
- Scrum Master

Product Owner

➔ Aims to improve the value of the outcomes
➔ Communicates with customer and other stakeholders
➔ Creates the Product Backlog
➔ Owns the Product Backlog
➔ Reviews the external business environment and the market
➔ Can cancel a Sprint if it is needed

⚠️ If a Sprint is cancelled, then the uncompleted items in the Sprint Backlog returns back to the Product Backlog.

PRODUCT BACKLOG	
RANK	**REQUIREMENTS**
1	Requirement 1
2	Requirement 5
3	Requirement 3
4	Requirement 12
5	Requirement 9
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7	Requirement 15
8	Requirement 16

SPRINT BACKLOG
SPRINT #1
Requirement 1
Requirement 5
Requirement 3
Requirement 12

UNDERSTANDING AGILE APPROACHES

Scrum

The Roles of the Scrum Team Members

- Product Owner
- **Development Team**
- Scrum Master

Development Team

➔ Executes the project work
➔ Creates the Sprint Backlog
➔ Can make changes to the Sprint Backlog
➔ To work, they don't depend on others outside the team
➔ The Development Team is a self-organizing team

UNDERSTANDING AGILE APPROACHES

Scrum

The Roles of the Scrum Team Members

- Product Owner
- Development Team
- **Scrum Master**

Scrum Master

➔ Promotes and supports Scrum within the organization
➔ Facilitates the team and the Scrum processes
➔ Uses her leadership skills
➔ Uses Emotional Intelligence
➔ "Serves" the team as a servant-leader
➔ Removes the impediments which may cause problems
➔ Ensures the Scrum processes are working well

UNDERSTANDING AGILE APPROACHES

Scrum

Scrum Events

- Sprint
- Sprint Planning
- Daily Scrum
- Sprint Review
- Sprint Retrospective