Introduction to Agile

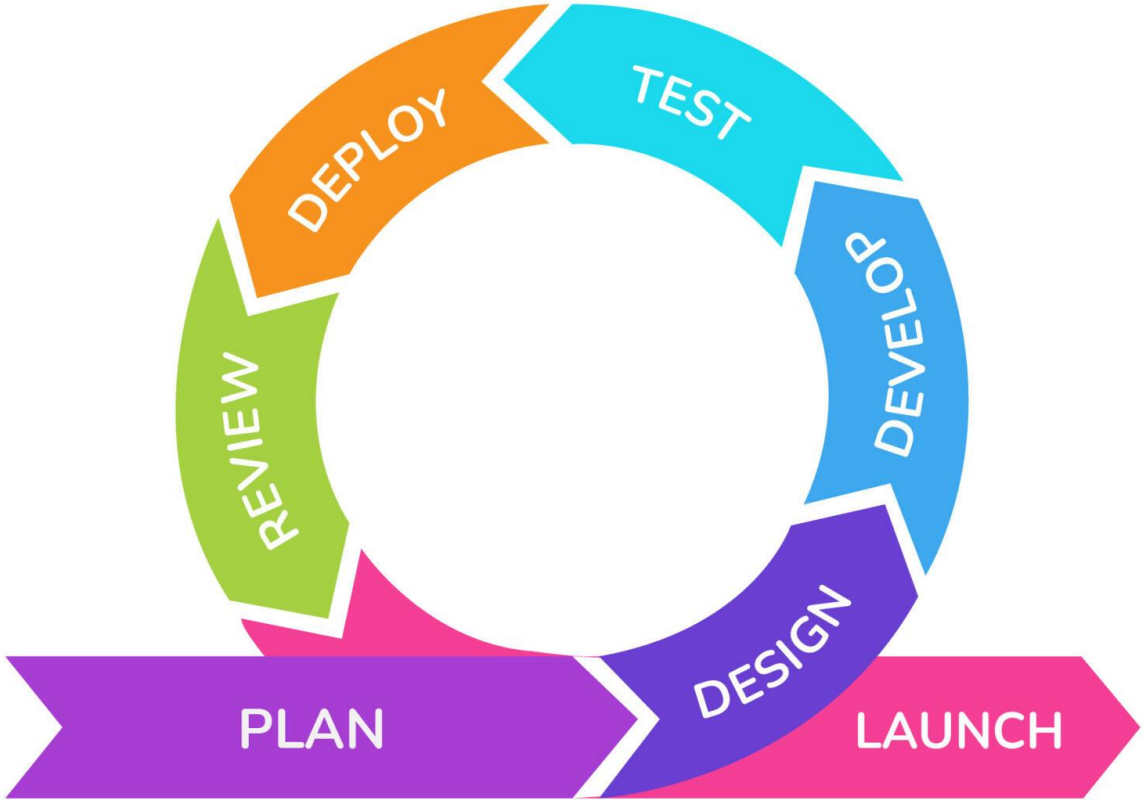
By
Narasimha Rao T
Microsoft.Net FSD Trainer
tnrao.trainer@gmail.com

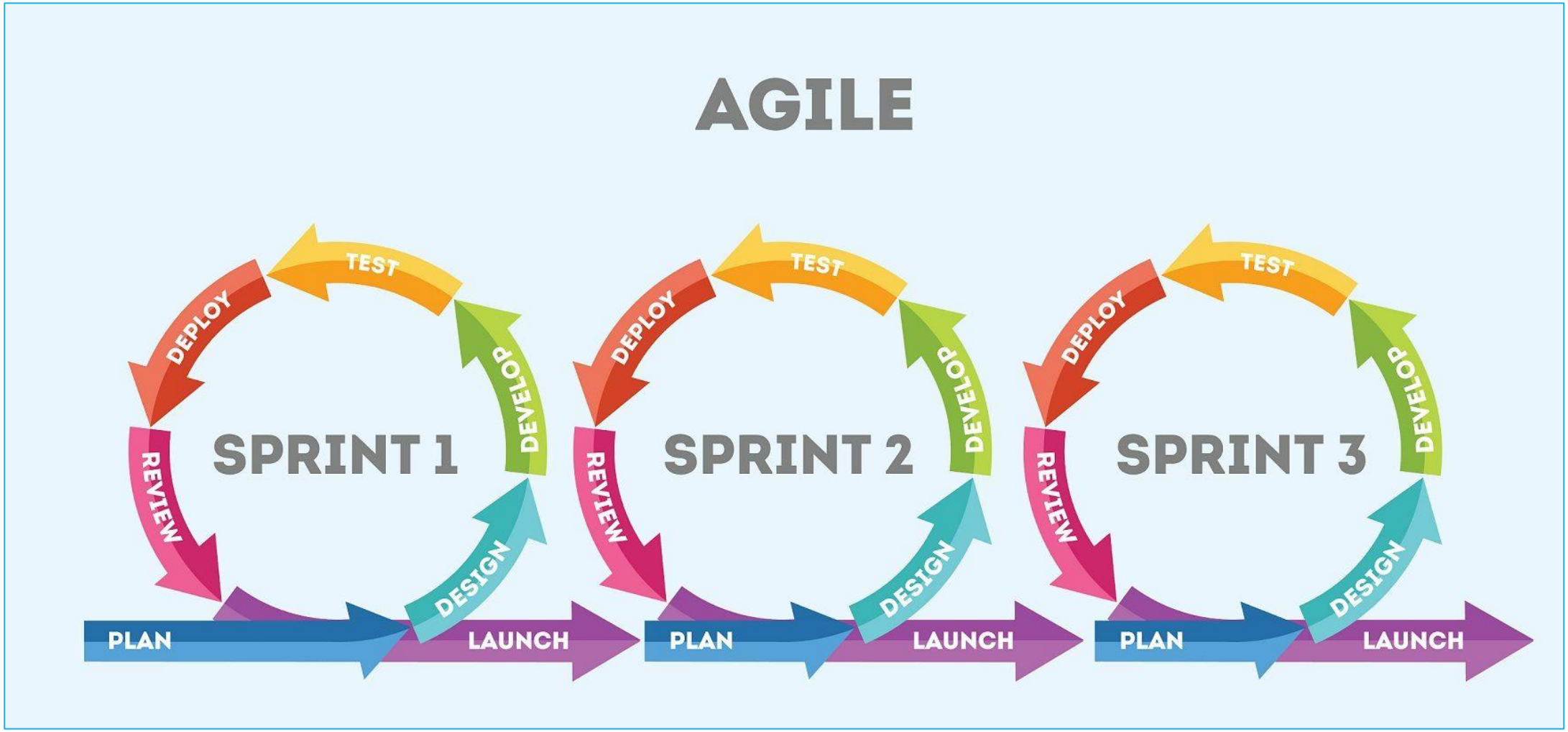
1. Introduction to Agile

What is Agile?

- **Agile** is a mindset and methodology used for software development and project management.
- It focuses on **incremental delivery**, **continuous improvement**, and **collaboration**.
- Emphasizes **individuals and interactions**, **working software**, **customer collaboration**, and **responding to change**.

AGILE




AGILE
SPRINT 1
SPRINT 2
SPRINT 3
TEST
DEVELOP
DESIGN
LAUNCH
REVIEW
PLAN
DEPLOY

Agile Manifesto (2001)

4 Core Values:

1. Individuals and interactions over processes and tools.
2. Working software over comprehensive documentation.
3. Customer collaboration over contract negotiation.
4. Responding to change over following a plan.

12 Principles – include early and continuous delivery, embracing change, sustainable pace, simplicity, etc.

Why Agile?

- More adaptable to change.
- Delivers value to customers faster.
- Encourages team collaboration and accountability.

2. Agile Team and Tools

Agile Team Structure

- Cross-functional: includes developers, testers, product owner, and scrum master.
- Collaborative, self-organizing, and empowered to make decisions.

Key Roles

- **Product Owner** – defines features and prioritizes backlog.
- **Scrum Master** – facilitates the process and removes impediments (issue or obstacle or blocker).
- **Development Team** – builds the product increment.

Common Tools

- **Jira**, **Trello**, **Asana** – for task tracking and sprint planning.
- **Confluence**, **Miro** – for documentation and collaboration.
- **Slack**, **Teams** – for communication.
- **CI/CD Tools** – Jenkins, GitHub Actions, etc., for automated deployments.

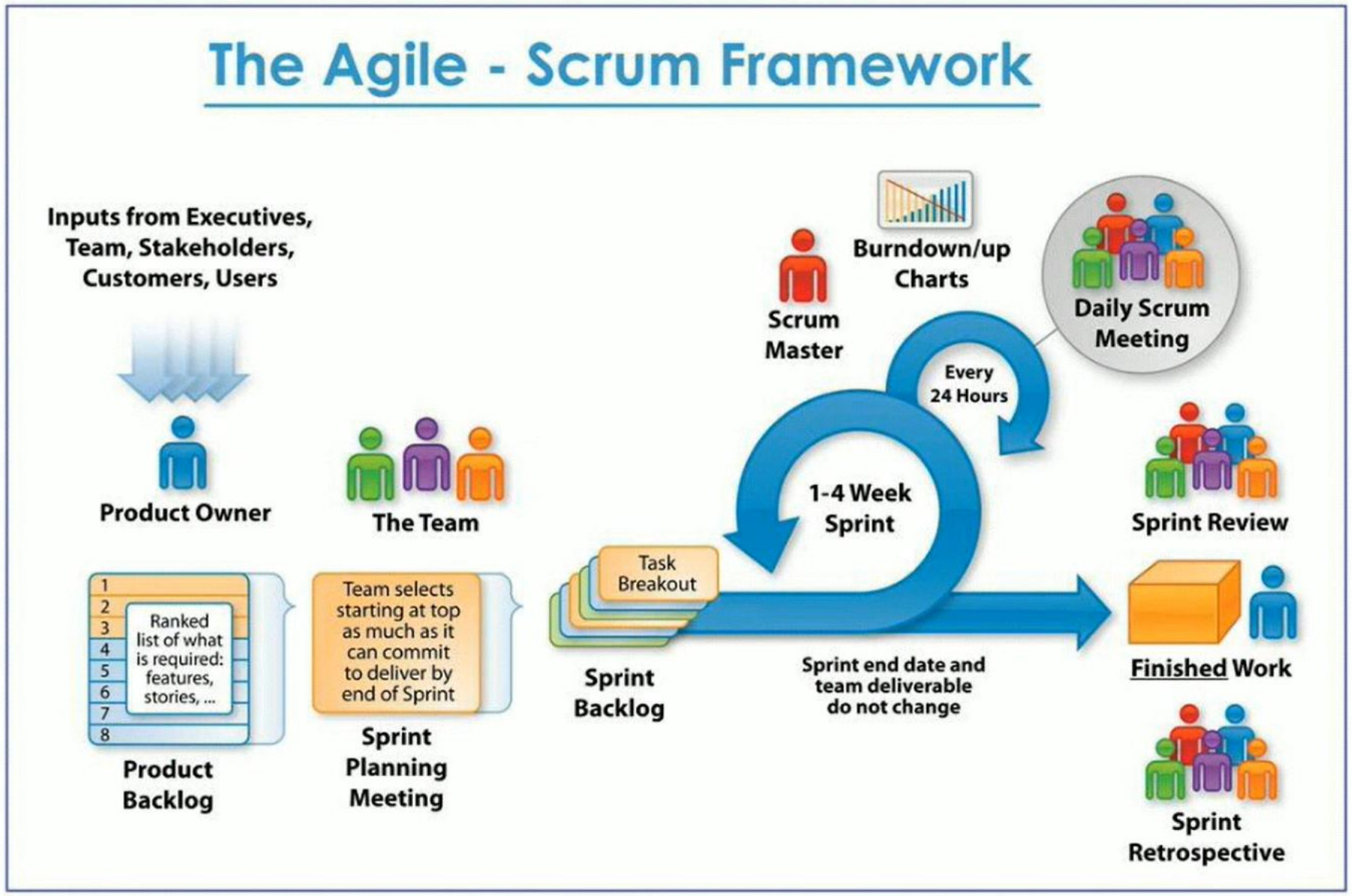
3. Agile Smart Pack

The "Agile Smart Pack" refers to essential Agile practices and frameworks used together for better productivity and efficiency.

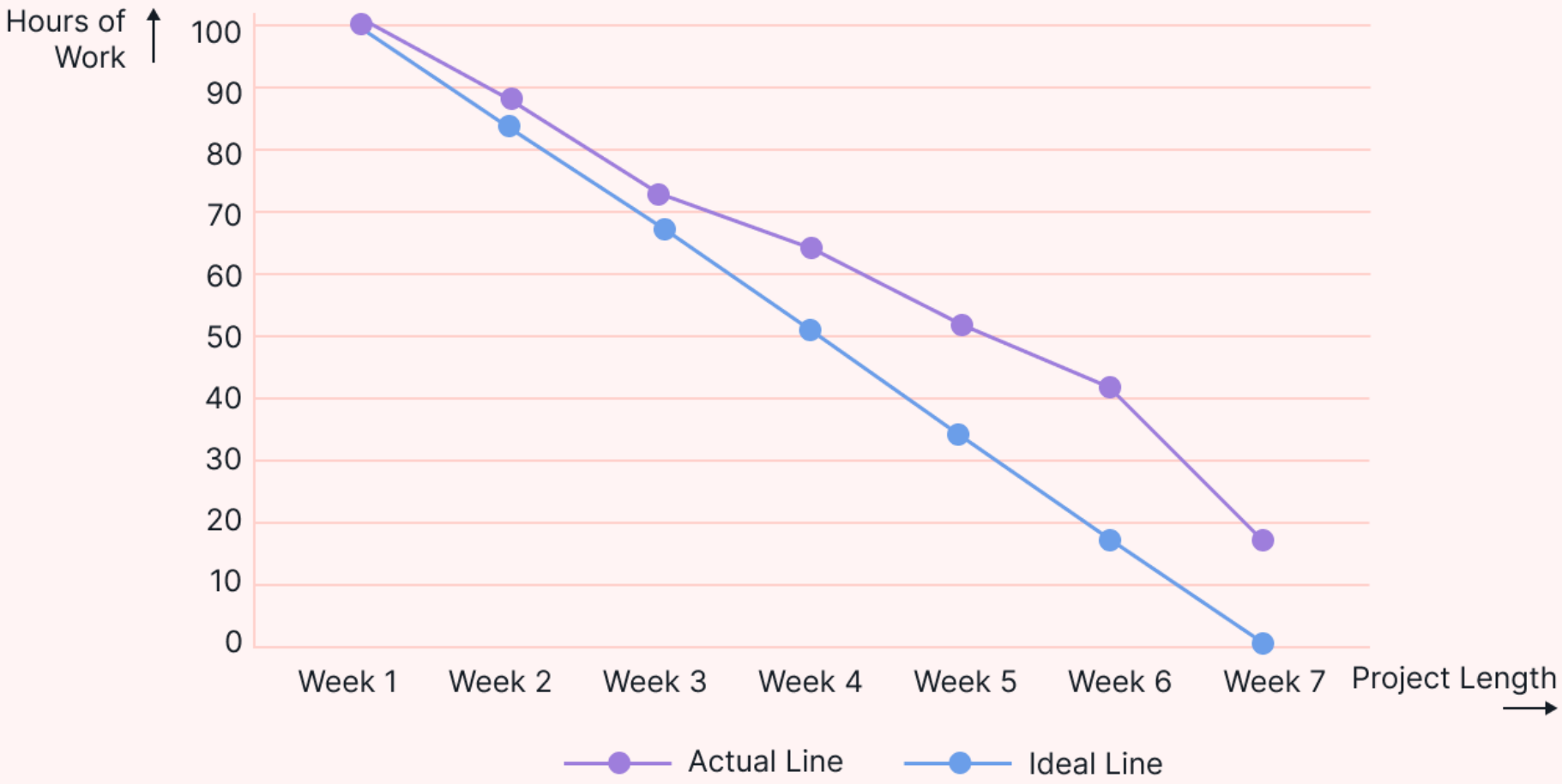
Components

- **Backlog**: Prioritized list of work items.
- **User Stories**: Descriptions of features from the end-user perspective.
- **Story Points**: Estimation technique used in Agile.
- **Velocity**: The amount of work a team can handle during a sprint.
- **Burndown Chart**: Visual representation of work left in a sprint.

The Agile - Scrum Framework



Burndown Chart Example



Frameworks Included

- **Scrum** – Iterative process with sprints (typically 2–4 weeks).
- **Kanban** – Visualize workflow, limit work in progress.
- **SAFe** – Scaled Agile Framework for large enterprises.

4. Agile Rituals

Agile rituals (also called ceremonies) foster team alignment and continuous improvement.

Main Agile Rituals

- **Sprint Planning**: Define goals and select backlog items for the sprint.
- **Daily Stand-up**: Quick, daily sync on progress and blockers.
- **Sprint Review**: Demonstrate completed work to stakeholders.
- **Sprint Retrospective**: Reflect and improve the team’s process.
- **Backlog Refinement**: Ongoing activity to update and prioritize the backlog.

5. Agile Myths

Common Misconceptions

- **"Agile means no documentation"** – Agile values *just enough* documentation.
- **"There's no planning in Agile"** – Agile includes planning at every level (release, sprint, daily).
- **"Agile is only for software"** – Agile is used across industries: marketing, HR, education, etc.
- **"Scrum = Agile"** – Scrum is one Agile framework; not all Agile teams use Scrum.
- **"Agile means chaos"** – Agile has structure, roles, and processes.

6. Agile Roles

Key Roles Explained

- **Product Owner**:
  - Represents customer voice.
  - Maintains and prioritizes the product backlog.
  - Ensures the product delivers business value.
- **Scrum Master**:
  - Agile coach and facilitator.
  - Ensures the team follows Agile practices.
  - Removes impediments and promotes collaboration.

- **Development Team**:
  - Cross-functional members who build and test the product.
  - Self-organizing and collectively responsible.
- **Stakeholders**:
  - May include customers, executives, users.
  - Provide feedback and validate product direction.

Q & A