Agile Scrum

Key Features

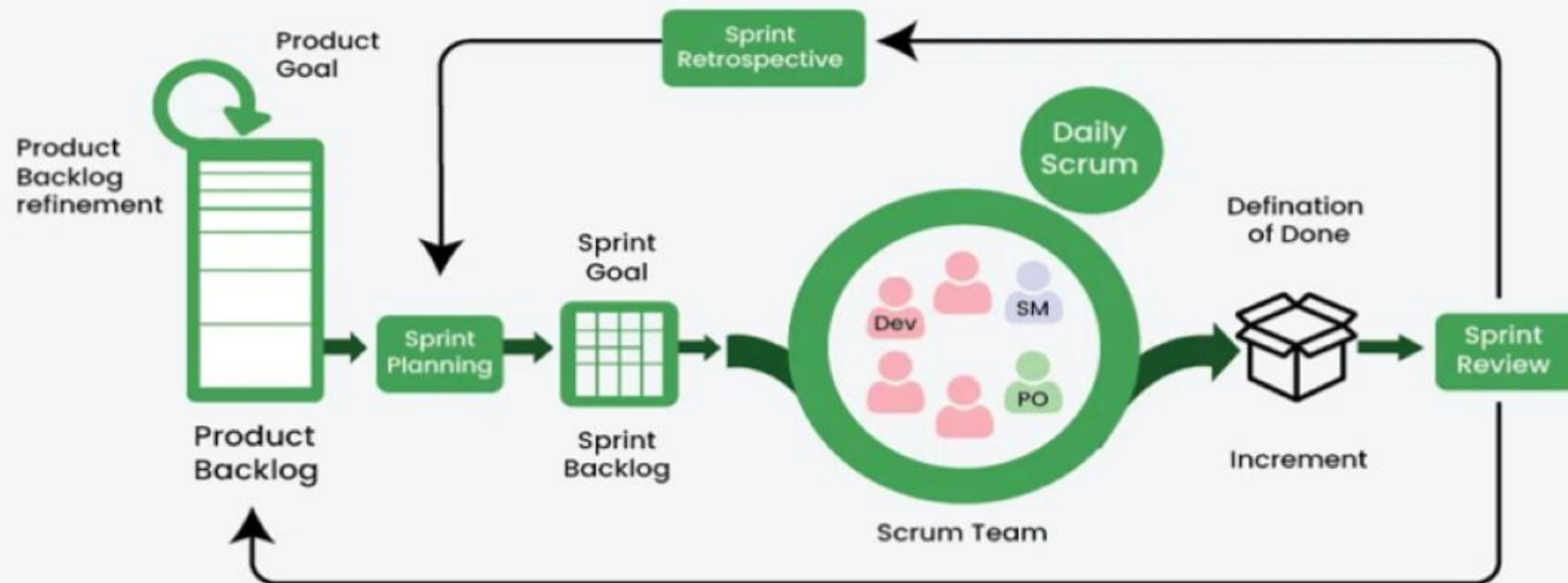- Agile
- User Story
- Backlogs
- Roles
- Ceremonies

What is Agile Model?

- Agile is an iterative and incremental SDLC Model.

- Agile model developing software in small parts called **sprints.**

- Agile breaks the project into **small, manageable parts** called **Iterations** or **sprints**.

- Incremental : keep adding a new sprints.

- Iterative : keep improving or enhancing what you built after feedback.

Advantages of Agile

- Build software in small ,manageable cycles (Iterations or Sprints)

- Delivering working software quickly.

- Welcoming changing requirements even late in development.

- Frequent collaboration between developers,testers,business stakeholders and customers.

What is User Story

- Description of what the user wants and why –in non technical language.

- In other words , Short, simple description of a feature is called User Story.

- User story format:

   As a \<type of user\>,I want to\<perform some action\>.So that \<I achieve some goal or benefit\>

e.g. :

As a user, I want to reset my password"

Each Sprint Includes

- Planning
- Designing
- Coding
- Testing
- Review & Feedback

Key Terminologies of Scrum

Product Backlog

Sprint

Development Team

Daily Scrum

Sprint Review

Sprint Retrospective

Backlogs

- Backlog are user stories waiting to be developed.

- There are two main types of backlogs:

- **Product Backlog**: Product contains all the features, user stories and requirements for the entire project/product both current and future work.

- **Sprint Backlog**: Sprint Backlog contains only the subset of user stories chose from the product backlog for the current sprint.

Ceremonies

- **Sprint Planning:**

- The sprint starts with a **planning meeting**, where the team decides **what** they'll work on and **how** they'll do it.

- **or**

- At the start of each sprint

- Decide what tasks (user stories) to complete during the sprint

What is Sprint

- A **Sprint** is a **time-boxed iteration** (usually 2–4 weeks) during which the development team works to complete a set of **user stories** (features) from the **product backlog**.

- **Sprint Backlog**

- A list of selected user stories/tasks from the product backlog that will be implemented in this sprint.

Daily Scrum(Stand Up)

- Daily Scrum (Stand-Up) call which lasts typically 15 minutes everyday.

- Purpose: Quick sync-up to track daily progress and remove blockers.

- Attendees: Development team (Product Owner & Scrum Master may observe).

- Each member answers 3 questions:

- What did I do yesterday?

- What will I do today?

- Are there any blockers?

Example Daily Scrum Call Script

👩‍💻 **Lalitha:**

- Yesterday: Completed login feature API.
- Today: Working on password reset functionality.
- Blockers: Waiting for DB access from DevOps team.

👩‍💻 **Prameela:**

- Yesterday: Tested the signup module.
- Today: Preparing test cases for dashboard.
- Blockers: None.

Sprint Review

- Team demonstrates the completed work to the product owner.

  Or

- Held at the end of the sprint to **demonstrate the working product** to stakeholders and get feedback.

- **Focus:**

- Demonstrate working software.

- Gather feedback for improvements.

Sprint Retrospective

- A **Sprint Retrospective** is the **last meeting** in a Scrum sprint.
  It's held **after the Sprint Review** and **before the next Sprint Planning**.

- **Purpose:**
  To help the Scrum team **reflect** on the sprint that just ended —
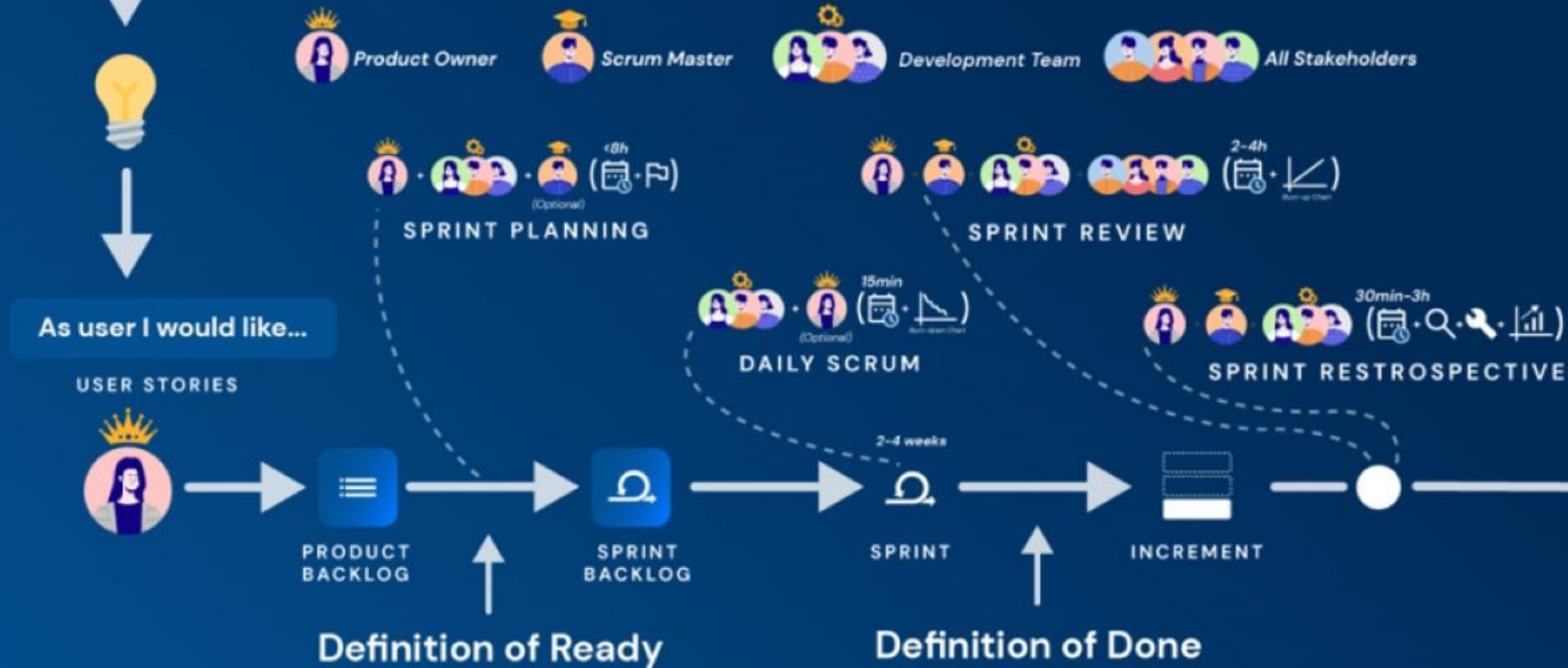 what went well, what didn't, and how to **improve** in the next sprint.

Roles

- Product Owner
- Scrum Master
- Development Team (Developers)
- Stakeholders
- Clients

Product Owner

- Defines **what** needs to be built (the *vision*).

- Manages and **prioritizes the Product Backlog** (list of features/user stories).

- Ensures that the team always works on the **most valuable tasks**.

- Represents the **customer/stakeholder** voice.

- Accepts or rejects completed work during **Sprint Review**.

Product Owner

Typical Activities:

- Writing **user stories**.

- Setting **acceptance criteria**.

- Participating in **Sprint Planning** and **Review**.

- Communicating with stakeholders about progress.

Scrum Master

- **Main Responsibility:**
- Ensure the **Scrum process is followed** and help the team work efficiently.
- **Key Duties:**
- Acts as a **coach and facilitator** for the Scrum team.
- Removes **impediments** (issues blocking progress).
- Ensures communication between Product Owner and Developers.
- Organizes Scrum ceremonies:
  - Sprint Planning
  - Daily Scrum
  - Sprint Review
  - Sprint Retrospective
- Promotes a **culture of continuous improvement**.

Development Team

- Build and deliver a **working product increment** every sprint.

Key Duties:

- Decide **how** to do the work planned by the Product Owner.

- Estimate effort and commit to work in **Sprint Planning**.

- Collaborate daily in **Daily Scrum** meetings.

- Ensure each sprint produces a **potentially shippable product**.

- Participate in reviews and retrospectives.

Typical Roles Inside the Team:

- Backend developers, Frontend developers, Testers ,QA engineers, Designers, DevOps engineers etc.

Stakeholders

- In Scrum, a **stakeholder** is **anyone who has an interest in or is affected by the product** being developed.

- They are **not part of the Scrum Team**, but they play a key role in providing **requirements, feedback, and validation** throughout the development process.

- They influence *what* is built, not *how* it's built.

- Their main interaction happens in the **Sprint Review**.

- The **Product Owner** is their primary contact person.

Clients

- A **client** is the **individual or organization that requests and funds the development** of a product or project.
  They are typically **external stakeholders** who **own** or **commission** the software being built.