Roles:

* Product Owner:
  + Collaborates with stakeholders to understand and prioritize product requirements.
  + Maintains and prioritizes the product backlog, ensuring it reflects the customer's needs.
  + Works closely with the development team to clarify requirements, provide feedback, and accept/reject deliverables.
* Scrum Master:
  + Guides the team in implementing Scrum practices and principles.
  + Facilitates Scrum ceremonies and ensures they are conducted effectively.
  + Removes impediments and promotes a productive and collaborative team environment.
  + Acts as a coach and servant leader, helping the team improve their processes and practices.
* Development Team:
  + Typically composed of developers, testers, designers, and other specialists.
  + Self-organizing and responsible for delivering the product increments.
  + Collaborates with the product owner to refine requirements and ensure a shared understanding.
  + Estimates effort, selects items from the product backlog for each sprint, and commits to completing them.
* Stakeholders:
  + Individuals or groups with an interest in the product, such as customers, users, and management.
  + Provide feedback, validate requirements, and make informed decisions.
  + Collaborate with the product owner and attend relevant Scrum ceremonies to provide input and guidance.
* Agile Coach:
  + Provides guidance and expertise on Agile principles, practices, and techniques.
  + Assists the Scrum team in adopting and improving Agile processes.
  + Facilitates training sessions, workshops, and knowledge sharing among team members.
* UX/UI Designer:
  + Collaborates with the product owner and development team to create user-centered designs.
  + Conducts user research, creates wireframes, and prototypes to guide development.
  + Ensures the user interface is intuitive, visually appealing, and aligned with user needs.
* QA/Test Engineer:
  + Responsible for ensuring the quality of the product through testing and quality assurance activities.
  + Develops and executes test plans, identifies defects, and works with the team to address them.
  + Collaborates with the development team to define test cases and testable requirements.
* Technical Lead:
  + Provides technical leadership and guidance to the development team.
  + Assists in architectural decisions, code reviews, and overall technical excellence.
  + Mentors and supports other team members in their technical growth.

Ceremonies:

* Sprint Planning:
  + Held at the beginning of each sprint to plan the work for that sprint.
  + Product owner presents the prioritized product backlog items.
  + Development team estimates effort, selects items for the sprint backlog, and defines a sprint goal.
* Daily Stand-up (Daily Scrum):
  + Short, time-boxed daily meeting (usually 15 minutes) for the development team.
  + Each team member shares progress since the last stand-up, plans for the day, and raises any impediments.
  + Facilitated by the Scrum Master but primarily conducted by the development team.
* Sprint Review:
  + Held at the end of each sprint to demonstrate the completed work to stakeholders.
  + Development team showcases the implemented features and collects feedback.
  + Product owner discusses the product backlog and potential updates based on stakeholder input.
* Sprint Retrospective:
  + Conducted at the end of each sprint to reflect on team processes and identify areas for improvement.
  + Team members discuss what went well, what could be improved, and actionable steps for the next sprint.
  + Scrum Master facilitates the retrospective and helps the team implement changes.
* Backlog Refinement (Grooming):
  + Conducted throughout the sprint to refine and clarify the product backlog items.
  + Product owner, development team, and stakeholders collaborate to discuss requirements, estimate effort, and prioritize backlog items.
  + Ensures the product backlog is well-prepared for future sprints.

Artifacts:

* Product Backlog:
  + An ordered list of requirements, user stories, and other work items.
  + Represents the product vision, features, and functionality desired by the customer.
  + Prioritized by the product owner based on value, risk, and stakeholder needs.
* Sprint Backlog:
  + Subset of product backlog items selected for a specific sprint.
  + Represents the work the development team commits to completing within the sprint.
  + Developed through collaboration between the product owner and development team during sprint planning.
* User Stories:
  + Short, simple descriptions of product functionality from a user's perspective.
  + Capture requirements, typically following the format of "As a [role], I want [goal], so that [benefit]."
  + Used to communicate customer needs and guide development.
* Burndown Chart:
  + A visual representation of the work remaining in a sprint or project.
  + Plots the remaining effort (usually in hours or story points) against time.
  + Helps the team track progress, identify bottlenecks, and forecast completion.
* Definition of Done:
  + A shared understanding among the team of what it means for a product backlog item to be considered complete.
  + Specifies the quality criteria, testing requirements, and other necessary conditions for acceptance.
  + Guides the development team's work and helps ensure a common definition of completion.
* Agile Release Plan:
  + A high-level plan that outlines the delivery schedule of product increments.
  + Provides visibility into the product roadmap, key milestones, and anticipated release dates.
  + Helps stakeholders and the development team align their expectations.