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SCRUM-AGILE VS. WATERFALL: A COMPARATIVE OVERVIEW

INTRODUCTION:

This presentation will go over the key facets of the Scrum-Agile methodology, compare it with the traditional Waterfall model, and provide guidance on selecting the appropriate approach for our projects.

GOAL:

provide leadership with the knowledge to make informed decisions about which development methodology, Scrum-Agile or Waterfall, best aligns with our company's needs.



AGILE ROLES

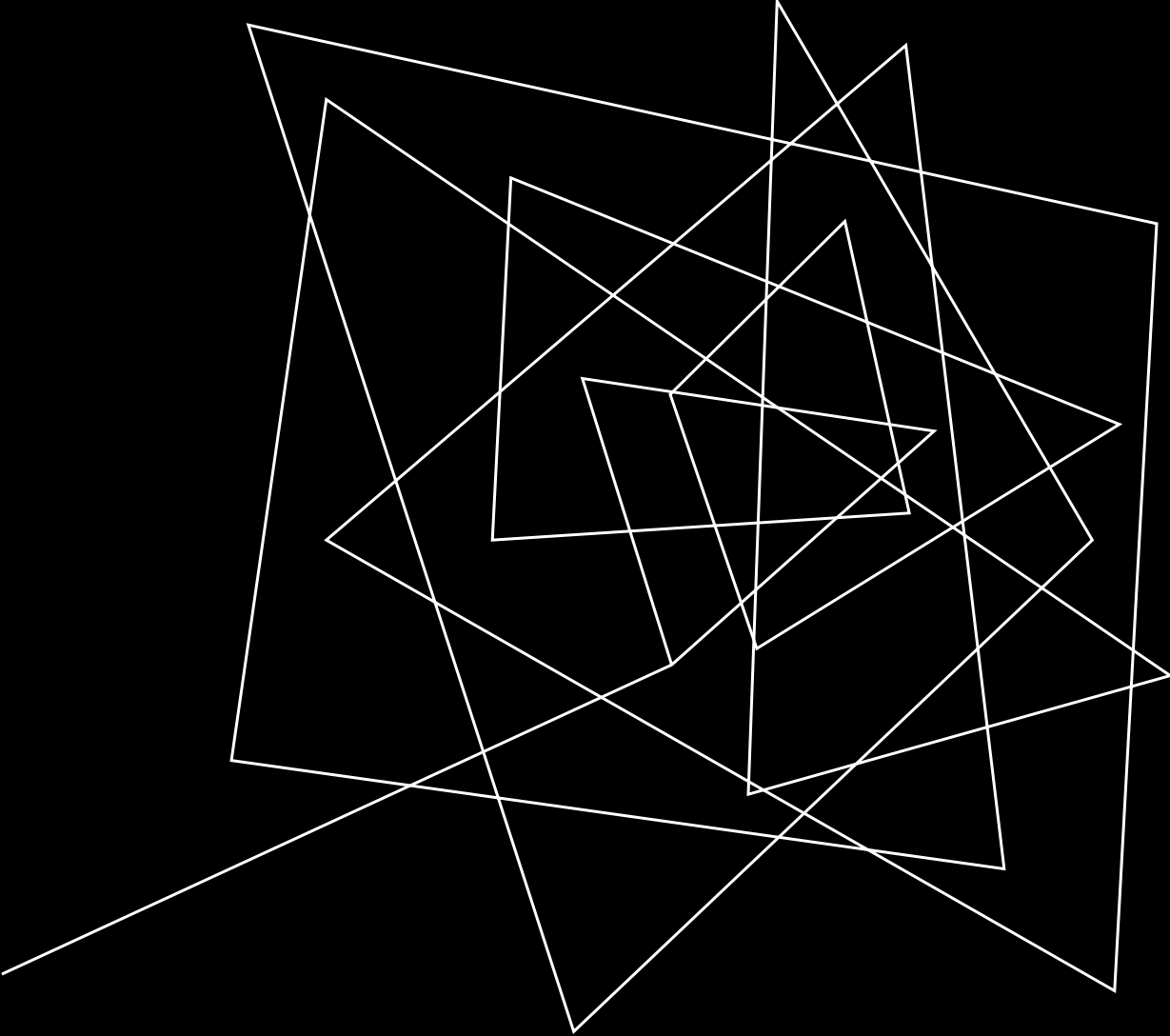
1. PRODUCT OWNER:

RESPONSIBILITIES:

MANAGES THE PRODUCT BACKLOG, PRIORITIZES TASKS BASED ON BUSINESS VALUE, AND ENSURES THAT THE TEAM DELIVERS FEATURES THAT MEET USER NEEDS.

IMPORTANCE:

ACTS AS THE VOICE OF THE CUSTOMER, ENSURING THE TEAM WORKS ON THE MOST VALUABLE FEATURES.



2. SCRUM MASTER:

RESPONSIBILITIES:

FACILITATES THE SCRUM PROCESS, REMOVES OBSTACLES THAT IMPEDE THE TEAM'S PROGRESS, AND ENSURES ADHERENCE TO SCRUM PRINCIPLES.

IMPORTANCE:

ENABLES THE TEAM TO BE SELF-ORGANIZING AND EFFICIENT, FOSTERING CONTINUOUS IMPROVEMENT.

3. DEVELOPMENT TEAM:

RESPONSIBILITIES:

CROSS-FUNCTIONAL GROUP RESPONSIBLE FOR DELIVERING THE PRODUCT INCREMENT, INCLUDING CODING, TESTING, AND DESIGN.

IMPORTANCE:

COLLABORATES CLOSELY TO DELIVER HIGH-QUALITY INCREMENTS OF THE PRODUCT IN EACH SPRINT.



4. TESTERS:

Responsibilities:

Ensures the product is tested throughout the sprint to catch defects early and validate that the product meets requirements.

Importance:

Integral to maintaining quality and ensuring that each product increment is functional and ready for release.

AGILE PHASES:

1. Concept:

Initial phase where the project vision is defined, and broad requirements are gathered.

Importance: Sets the direction and scope for the project.

2. Inception:

Detailed planning, including forming the Scrum team, defining roles, and preparing the initial product backlog.

Importance: Establishes a solid foundation and plan for the project's execution.

3. Iteration/Development:

Series of short development cycles (sprints) where features are developed, tested, and refined based on feedback.

Importance: Allows for flexibility and continuous improvement, with frequent delivery of working software.

4. Release:

Final product is tested, refined, and deployed to users.

Importance: Ensures the product is ready for production use and meets the user's needs.

5. Maintenance:

Ongoing phase where the product is supported, and further iterations are made based on user feedback.

Importance: Keeps the product relevant and functional post-launch.

WATERFALL MODEL OVERVIEW:

PHASES:

1. **Requirements:** Gather and document all requirements before any design or development begins.
2. **Design:** Create a detailed design based on the requirements.
3. **Implementation:** Code and build the product according to the design specifications.
4. **Testing:** Test the product to ensure it meets the requirements and is free of defects.
5. **Deployment:** Release the fully completed product to users.
6. **Maintenance:** Provide ongoing support and updates to the product post-deployment.

SEQUENTIAL PROCESS:

- Each phase must be completed and signed off before moving to the next, creating a linear flow.

FOCUS:

- Emphasizes thorough upfront planning and documentation, aiming to minimize changes during development.

AGILE VS. WATERFALL



Flexibility:

Agile:

Highly adaptable to changes, allowing for adjustments in scope and priorities throughout the project.

Waterfall:

Rigid and less flexible, with changes often leading to delays and additional costs.

Feedback Loops:

Agile:

Continuous feedback from stakeholders and users throughout the development process, enabling iterative improvements.

Waterfall: Feedback is typically gathered after the testing phase, making it harder to address issues that arise late in the process.

Time to Market:

Agile:

Delivers working software incrementally, allowing for early release of key features and quicker time to market.

Waterfall:

Delivers the final product only after all phases are completed, often leading to longer development cycles.



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