Scrum-agile vs. Waterfall
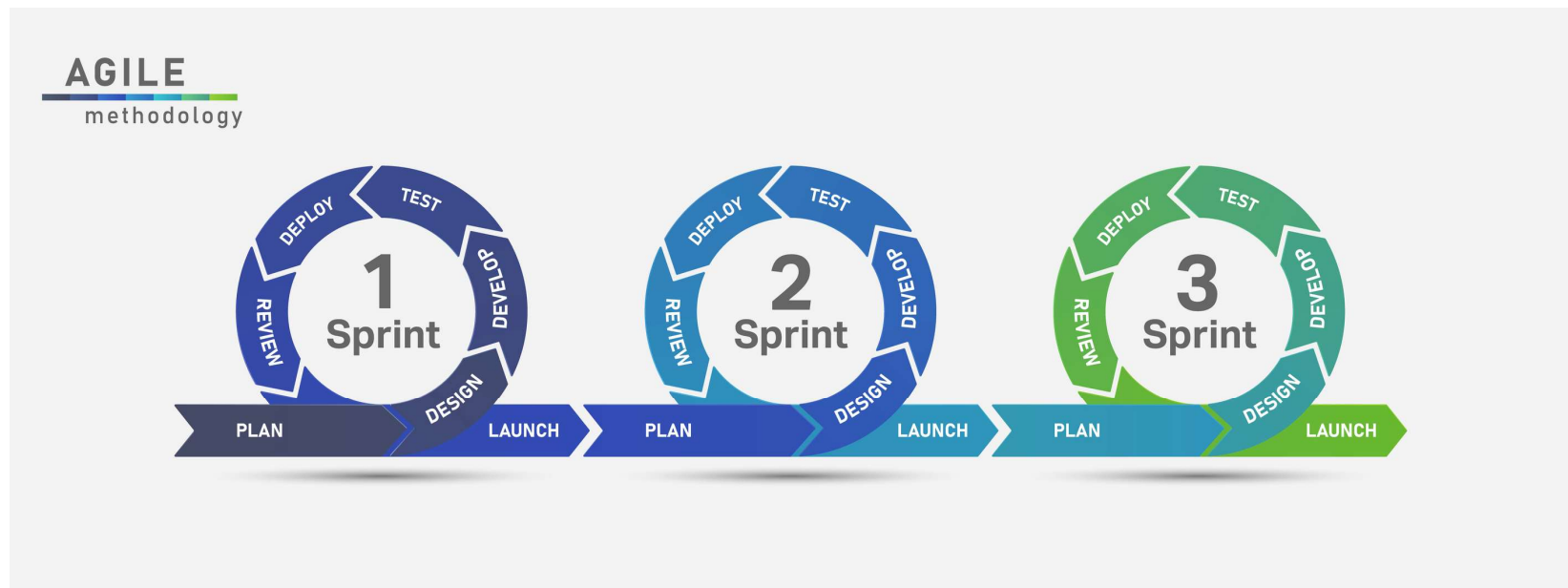
An exploration of roles and processes

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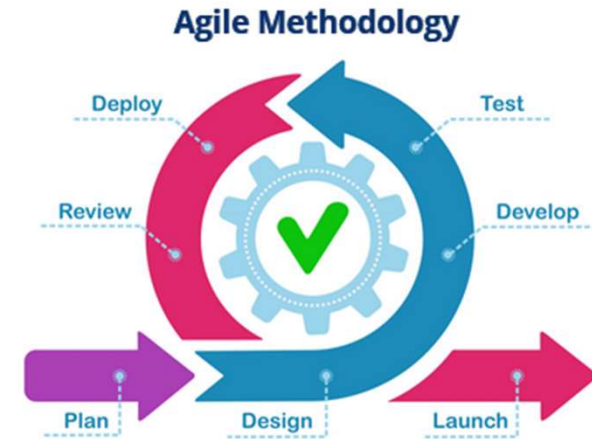Dantzler

Srcum-Agile Team Roles

- Product Owner
  - Responsible for managing the product backlog, the work to be done organized into user stories. User stories are a way of defining requirements. (Cobb, pp. 35, 40)
- Scrum Master
  - Helps outsiders interact with Scrum Team. Ensure best Scrum practices are followed. Facilitates Scrum events.
    (Cobb, p. 36)
- Tester*
  - Works collaboratively with developers. Tests as development is happening to ensure user stories are met (concurrent testing)
    (Cobb, pp. 6, 80)
- Developer
  - *No titles for development team members other than developers. May do different work, or apply special skills, but all are developers.
    (Cobb, 38)

Phases of SDLC in an agile approach

Phases of SDLC in an agile approach

- Plan – Gather business requirements
- Design – Pre-production version
- Develop – Turn requirements to code
- Test – Validation. Done with Dev.
- Deploy – Product delivered to user
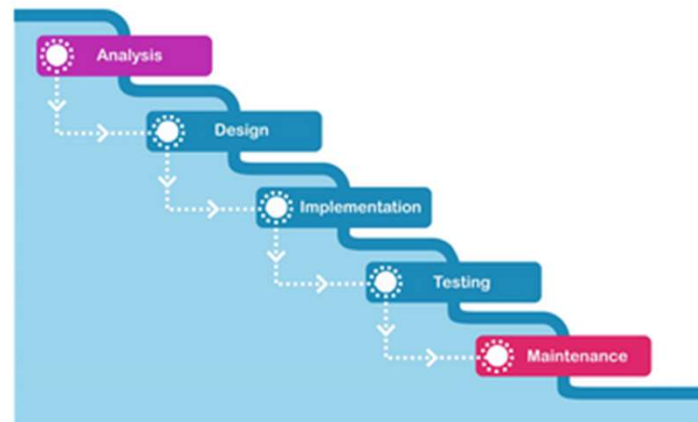- Review – Process improvement
- Launch –Product is live

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Agile Methodology

Deploy
Test
Review
Develop
Plan
Design
Launch

Agile is an adaptive, continuous improvement method that focuses on short iterations.

Waterfall

Entire product is developed before customer review / delivery

Waterfall Development Model

- Analysis
- Design
- Implementation
- Testing
- Maintenance

The waterfall development model is a traditional software development model with distinct goals for each phase of development. Waterfall is a linear, sequential, and plan-driven model that requires detailed documentation prior to starting development. For these reasons, software developers did not like the waterfall model and began brainstorming alternative methods.

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Agile vs Waterfall

In this project, the primary difference between an agile vs. waterfall approach is that in a waterfall approach, there is no mechanism for customer feedback before the final project is delivered.

Here, we would have seen the wrong content slides delivered to the customer (popular destinations vs. wellness / detox trips)

There wouldn't have been an opportunity to correct this upon delivery in the waterfall method. But with agile, customer feedback was incorporated before launch.

Agile vs. Waterfall

The waterfall approach may be preferred when requirements are solidly defined upfront. Agile is better suited for when these requirements may not be clearly known or subject to change. In the class project, the requirements seemed clear up front, but upon development they changed. The chosen agile approach was better suited in this case. A project where the customer and the provider have worked closely together in the past or the provider has done similar projects may be better suited to the waterfall method- having a proven case-study to base the design and process on could preclude the need for heavy customer involvement during development. A newer team or customer relationship may benefit from the more flexible agile approach.

References

- Cobb, Charles G. *The Project Manager's Guied to Mastering Agile*. Hoboken, New Jersey: John Wiley & Sons, Inc., 2015.

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