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Proposal for Software Project Management Methodology

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3rd September 2024

Currently, we employ the Waterfall methodology for managing feedback tickets, which offers the benefit of a fixed product and budget due to its clear and specific goals established from the outset. This approach works well for smaller feature requests because it requires minimal stakeholder feedback or collaboration beyond the established milestones and deliverables for each phase. However, for larger projects, this method can result in extended timelines and delays.

Disadvantages of the Waterfall Methodology:

- **Inflexibility**: Once a phase is completed, it's challenging to go back and make changes, which can lead to issues if initial requirements were not fully understood or if they change.
- **Delayed Testing**: Testing occurs only after the development phase is completed, leading to potential delays and issues being discovered late in the process.
- **Limited Stakeholder Involvement**: Stakeholders are often only involved during the requirements phase, which can lead to misunderstandings and missed opportunities for valuable feedback throughout the project.
- **Risk of Obsolescence**: For longer projects, the final product may not meet the current needs of the business or technology environment by the time it is completed.

To address these issues, I propose adopting a more flexible approach for our intranet project management, specifically by implementing the Agile methodology for new module development.

Advantages of the Agile Methodology:

Agile's key advantage lies in its adaptability to varying timescales. For example, if we set a one-month deadline to deliver a new module, we can prioritize tasks and adjust our workload to meet that timeline. Agile emphasizes creating user stories with estimated durations and priorities, developing functional components, and regularly presenting prototypes to stakeholders. This continuous feedback loop, facilitated by frequent meetings, allows us to adapt and refine the project as needed.

Disadvantages of the Agile Methodology:

- **Requires High Stakeholder Involvement**: Agile relies on continuous stakeholder interaction, which can be time-consuming and requires commitment from all parties involved.
- **Less Predictability**: Due to its iterative nature, it can be challenging to predict the final deliverables and timelines, potentially leading to scope creep.
- **Resource Intensive**: Agile often demands more resources, including time and personnel, to manage the iterative cycles and frequent meetings effectively.
- **Overemphasis on Process**: The need for constant feedback, re-prioritization, and adaptation may sometimes overshadow the focus on the actual product development.

We just introduced the technology reference module, and the development process exposed some of the issues with the Waterfall methodology. We had a predetermined schedule and a well-defined list of requirements when we started development

on this module in June 2023. However, unexpected problems weren't found until much later in the process since the Waterfall approach lacks a constant feedback loop. Because of this, the module, which was supposed to be finished and delivered much sooner, wasn't until March 2024.

In summary, while Waterfall offers the advantages of a fixed timeline and budget, it may not be the best fit for larger, more complex projects. Agile, on the other hand, provides the flexibility needed for such projects but comes with its own set of challenges, particularly in terms of resource demands and predictability. By adopting Agile for new module development, we can better manage our intranet project to accommodate changing requirements and deliver a product that better meets the needs of our users.