TEMA:

Agile methodology selection

PRESENTADO POR:

Valenzuela Esparza Javier Ivan

GRUPO:

10B

MATERIA:

Desarrollo Movil Integral

PROFESOR:

Ray Brunett Parra Galaviz

FECHA:

06/01/2025

AGILES METHODOLOGIES.

Selecting a suitable agile methodology is essential to optimize project management and adapt to the specific needs of each team and project.

Extreme Programming (XP)

XP is an agile methodology focused on software quality and the ability to respond quickly to change.

- **Core Practices**:
  - *Pair Programming*: Two developers work together on the same code to improve quality.
  - *Continuous Integration*: Changes are frequently tested and integrated to avoid accumulated errors.
  - *Test-Driven Development (TDD)*: Tests are written before coding.
  - *Simplicity*: Writing the simplest code that works.

Advantages:

- Extremely high product quality.
- Excellent for projects requiring constant and rapid changes.

Why Choose Extreme Programming (XP)?

1. **Focus on Quality:**
   XP emphasizes delivering high-quality software by embedding quality assurance into every stage of development. Practices like Test-Driven Development (TDD) and Pair Programming ensure that the code is robust, reliable, and maintainable.
2. **Adaptability to Change:**
   XP is ideal for projects with rapidly changing requirements. The methodology encourages frequent communication and short iterations, allowing the team to incorporate feedback and adjust to changes quickly.
3. **Core Practices:**
   XP includes several innovative practices that make it effective for agile development:
   - **Pair Programming:** Two developers work together on the same piece of code. This promotes knowledge sharing, reduces errors, and improves code quality.
   - **Continuous Integration:** Frequent integration and testing of code ensure that errors are caught early, reducing the risk of defects accumulating over time.
   - **Test-Driven Development (TDD):** Writing tests before writing the actual code ensures that all functionalities are thoroughly tested and align with requirements.

- ○ **Simplicity:** Developers focus on writing the simplest code that meets the current requirements, avoiding over-engineering and ensuring efficiency.
4. **Advantages:**
    - ○ **Extremely High Product Quality:** XP's practices lead to fewer defects, a cleaner codebase, and software that meets user expectations.
    - ○ **Quick Response to Change:** The ability to adapt to changing requirements without significant disruption makes it excellent for uncertain or evolving projects.
    - ○ **Collaboration and Communication:** XP fosters teamwork and open communication, ensuring that all team members understand the goals and contribute effectively.

Bibliographic Sources

Sotomayor, S. G. (2024, 9 noviembre). Qué son las metodologías ágiles y cuáles son más utilizadas. Thinking for Innovation. https://www.iebschool.com/blog/que-son-metodologias-agiles-agile-scrum

¿Qué es la metodología ágil? ¿Para qué sirve? (2023, 14 febrero). Zendesk. https://www.zendesk.com.mx/blog/metodologia-agil-que-es