SESSION REPORT

On Agile Methodology and Banking Domain

Abstract

This session report outlines a workshop focused on teaching the Agile Methodology principles while simultaneously applying them to the creation of bank brochure. Participants engaged in hands-on activities, learning the fundamentals of Agile

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Introduction

In the rapidly evolving Business landscape, the ability to adapt to change and deliver value to customers efficiently is paramount. Traditional project management approaches often struggle to keep pace with the dynamic nature of modern projects, leading to delays, and dissatisfaction among stakeholders. In response to these challenges, The Agile methodology has emerged as a leading framework for managing projects in a more flexible and collaborative manner.

The Agile Methodology has gained significant traction in Project management circle for its adaptability, iterative approach, and focus on customer collaboration. Participants engaged in hands-on activities, learning the fundamentals of Agile such as iterative Development, continuous feedback, and adaptive planning. This session aimed to impart participants with a practical understanding of Agile principles and values by applying them to the creation of a bank brochure. Through hands-on activities and guided exercises, we were introduced to Agile concepts and their application in real world scenarios. The session fostered a deeper understanding of Agile concepts and their relevance in modern project management practices.

By fostering a deeper understanding of Agile principles and their relevance in modern project management practices, this session aimed to empower participants to become more effective and adaptable leaders in their organizations. As Agile continues to gain traction across industries, sessions like these play a crucial role in equipping teams with the skills and knowledge needed to thrive in today's dynamic business environment.

Key concepts learned in the session.

- MoSCoW Principles
- Agile Principles and Values
- Roles and Responsibility
- Brief on different types of Testing
- Slice and Dice criteria
- Continuous Integration and Continuous Deployment
- Process for Execution

Session Structure

The session began with an overview of Agile methodology, emphasizing its core principles such as iterative Development, customer collaboration, and responding to a changeover following a plan. We were introduced to the Agile Manifesto and its guiding values, setting the stage for the practical exercises ahead which involved building a Brochure for bank in a team of 5 members with the intention of digitalization of traditional banking system.

MoSCow Principle

The MoSCoW principle is a prioritization technique used in project management, particularly in Agile Development. The acronym "MoSCoW" stands for:

Must Have: They represent core functionalities or elements that must be delivered within specific timeframe.

Should Have: These requirements or features are important but not critical for project's immediate success.

Could Have: These are desirable but optional features that would enhance the project if implemented.

Won't Have: These are the features that are explicitly excluded from the current scope of the project.

Agile Manifesto

- **Individuals and interactions over processes and tools:** It prioritizes the importance of people and their interactions in software development.
- **Working Software over comprehensive documentation:** While documentation is important, delivering working software to customers is the primary measure of progress and success.
- **Customer collaboration over contract negotiation:** Encourages close collaboration between development teams and customers throughout the project enabling the delivery of solutions that meet customer needs and expectations.
- **Responding to change over following a plan:** It embraces change as a natural and inevitable part of development process.

These values are supported by twelve principles that further guide Agile Methodology, such as welcoming changing requirements, delivering the working software frequently and promoting sustainable development practices.

Roles And Responsibility

In Agile Methodology, team roles and responsibilities are distributed in a way that promotes collaboration, adaptability and efficiency throughout the project lifestyle.

- **Product Owner:** The Product Owner represents the stakeholders and is responsible for defining and prioritizing the Product Backlog.
- **Scrum Master:** The Scrum Master is responsible for facilitating the Scrum process and ensuring that the team adheres to Agile Principles and practices.

- **Scrum Team:** The scrum team consists of cross-functional members responsible for delivering increments of potentially shippable product at the end of each sprit.

Brief on Different Types of Testing

- **Unit Testing:** Focuses on testing individual units or components of the software in isolation.
- **Integration Testing:** Tests the interaction between different units/modules of the software.
- **System Testing:** Evaluates the behavior of the entire software system as a whole.
- **Acceptance Testing:** Validates whether the software meets the acceptance criteria and satisfies the user requirement.
- **Regression Testing:** Verifies that recent code changes have not adversely affected the existing functionalities.
- **Usability Testing:** Evaluates the software's user interface, user experience, and overall usability.
- **Smoke Testing:** A quick and basic test to verify that the critical functionalities of the software work without any major issues.
- **Edge Case Testing:** It **focuses** on testing the boundary or the edge cases or condition of the input domain.

Slice And Dice Criteria

When slicing and dicing epics and stories in Agile project management, teams often employ various criteria to ensure that work is broken down into manageable chunks that adhere to INVEST acronym and the 3C's.

INVEST Criteria:

- **Independent:** Epics and stories should be independent of each other.
- **Negotiable:** Requirements should be negotiable to encourage collaboration between the development team and the stake holders.
- **Valuable:** Epics and stories should deliver values to the customer.
- **Estimable:** Epics and stories must be estimable in terms of effort, complexity and resources required for implementation.
- **Small:** Stories must be small enough to be completed in a single sprint.
- **Testable:** Each story should be testable, meaning that the acceptance criteria are clearly defined and measured.

3C's:

- **Card:** Each story should be captured on a physical or a digital card.

- **Conversation:** Stories should be accompanied by conversations between the development team and stakeholders to clarify the requirements and discuss the potential solutions.
- **Confirmation:** Each story should have clear acceptance criteria that define the conditions under which the story will be considered complete.

Continuous Integration and Continuous Deployment:

Continuous Integration (CI) is a software development practice where developers regularly integrate the code changes into a shared repository. Each integration triggers an automated build and test process to detect and address integration errors early in development lifecycle.

Continuous Deployment (CD) extends CI by automatically deploying code changes to production environments after passing the automated tests. This practice ensures that software updates are delivered to user quickly and frequently.

Process for Execution

- **Sprint Planning:** It kicks of each sprint and involves the Product owner, Scrum Master and Scrum Team. The team collaboratively selects the backlog items to be worked on during the sprint based on priority and capacity.
- **Daily Standup:** It is a time-boxed meeting held every day during the sprint. The entire Development team attends, including the scrum master and sometimes the Product owner. Each team members provide a brief update on their progress and what they plan to work on next and mention about any blockers they are facing.
- **Sprint Review:** It is held at the end of each sprint and involves the Development team, Product owner, stakeholders and often customers. The team presents the work completed during that sprint, demonstrating the functionality implemented and gathering feedback.
- **Retrospection:** It is held immediately after the sprint review and is attended by the Scrum team and the Scrum Master. This involves reflecting on the sprint process and identifying opportunities for improvement.

Case Study and Hands-on on Building a Brochure for Bank using Agile Principles

The end of the two-day session was with the building of a Bank Brochure using Agile Principles and methodology. The team of 4-5 members was made with a Product Owner, Scrum Master and the Scrum Team.

The Product Owner specified the features and the requirements, based on which the content, scope and the structure of the brochure was defined. And the Sprint backlog with prioritized user stories

and initial design concepts was designed. Later the developed a content for the brochure based on user stories and concepts. Following this a sprint review to demo the complete brochure to stakeholders was done. And then gathered and incorporated the feedback to make the final refinements to the Brochure. Also, the Retrospection was done.

The iterative nature of the Agile allowed for continuous feedback and refinement throughout the development process, resulting in a final product that meets the need of both bank and its customers.

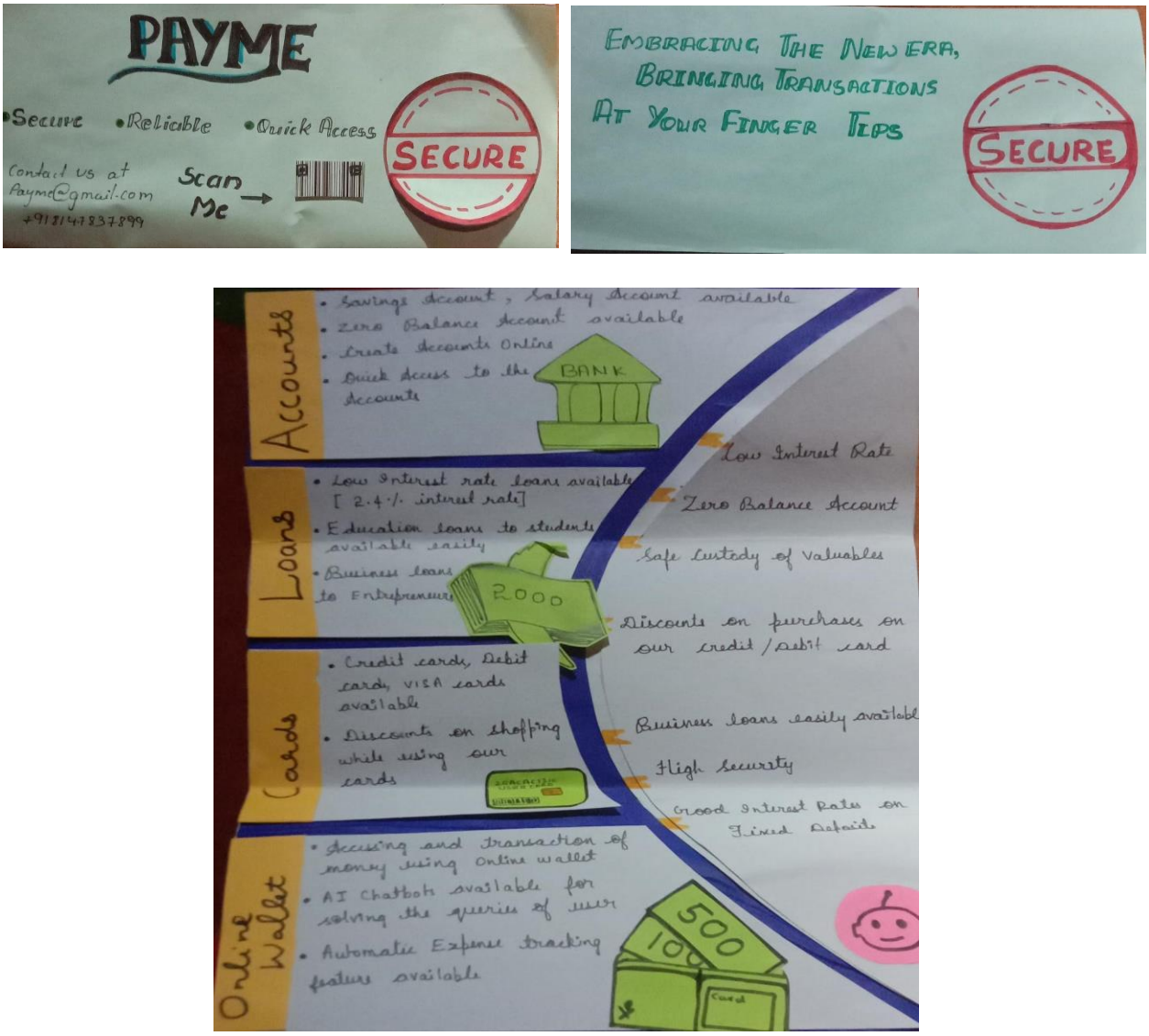

Fig: Snapshots of the Bank Brochure

Conclusion

The session was provided with a comprehensive understanding of Agile Principles and their practical application in project management. Through the hands-on experience building a bank brochure, participants gained insights into iterative development, continuous feedback and adaptive planning.

The session on Agile Methodology not only provided participants with practical skills and insights but also instilled a mindset of agility and adaptability that is crucial for thriving today's dynamic business environment.