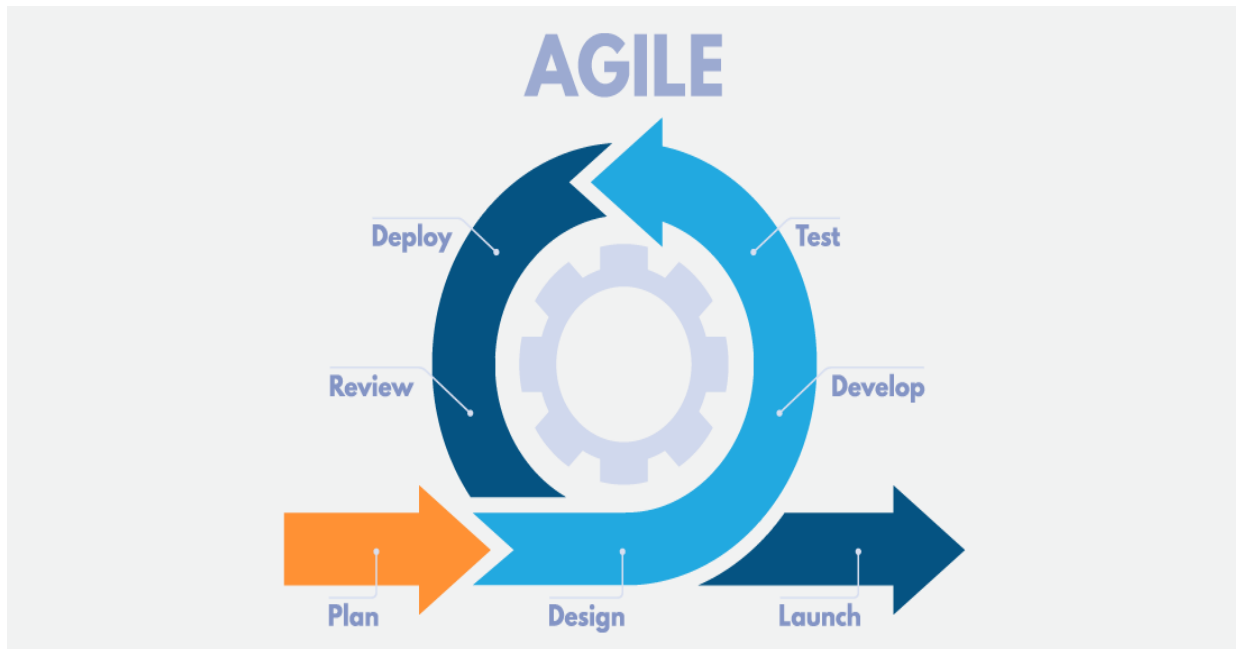# Report on Agile methodology and Banking Sector

By,

Varun Raj (Ext),

Apprentice,

Tietoevry Fintech India Pvt.Ltd. (Banking Unit)

Agile methodologies play an important role in the IT banking sector, providing the flexibility needed to navigate the dynamic financial landscape. These methodologies enable rapid responses to regulatory shifts, market fluctuations, and changing customer preferences. By emphasizing customer collaboration and iterative development, Agile practices ensure that solutions align closely with customer expectations. The accelerated time to market is a key advantage, especially in the highly competitive banking industry. Moreover, Agile supports efficient resource allocation, effective risk management, and continuous improvement through regular reflection sessions. The emphasis on cross-functional team collaboration enhances communication, facilitating the seamless delivery of high-quality, compliant software solutions in the ever-changing banking landscape.

In the sessions held in account of Apprentice program dated from 14/02/2024 to 15/02/2024 we can summarize the concepts as follows:

Roles And Responsibilities:

- A **product manager** is a professional responsible for the strategic planning, development, and execution of a product, ensuring it meets customer needs and aligns with business objectives throughout its lifecycle.
- The **Product Owner** is a key player in Agile development, responsible for prioritizing, refining, and communicating product features, ensuring alignment with business goals and maximizing value for stakeholders.
- A **Scrum team** is a cross-functional group of individuals working collaboratively within the Scrum framework to deliver incremental and valuable product increments.
- A scrum team consists of Developer, Tester, Designer, Architects etc.
- A Scrum team is responsible for collaboratively delivering incremental value to the product during each sprint, ensuring self-organization, cross-functional collaboration, adherence to Scrum values, and continuous improvement. The team engages stakeholders, meets sprint goals, and actively participates in Scrum events to enhance efficiency and product success.
- The **Scrum Master** supports collaboration, shields the team from external distractions, and helps create an environment conducive to high productivity and delivery of value.

Customer value and customer feedback:

- Customer value is crucial for market relevance, competitive advantage, and revenue generation, fostering loyalty and innovation.
- Customer feedback provides insights for product improvement, enhanced user experience, issue resolution, and agile adaptation.
- Together, they drive customer-centric decision-making, brand reputation, and long-term business success.

Time box

- A time box is a fixed and predefined period during which a particular activity or task is performed.
- It sets a clear time limit, helping teams focus on delivering a specific outcome within that timeframe.
- It increases efficiency and facilitates planning.

Sprint goal:

- A Sprint Goal is a concise and understandable objective set for a specific iteration, or sprint,.
- It provides the Scrum team with a clear target to work towards during the sprint.
- The Sprint Goal is defined collaboratively by the Product Owner, Scrum Master, and Development Team during the Sprint Planning meeting.

Features, Epics, Stories:

A feature is a high-level functionality or capability of a product that provides value to the user or the customer.

Ex: In a banking application, a feature could be "Mobile Check Deposit," allowing users to deposit checks using their mobile devices.

A user story is a small, independently deliverable unit of work that describes a specific functionality or requirement from an end user's perspective.

Ex: As a customer, I want to be able to view my transaction history, so I can track my expenses and account activity.

An epic is a large body of work that can be broken down into smaller user stories. It typically represents a significant feature or theme that spans multiple sprints.

Ex: multi-factor authentication

- Epics are broken down to stories by Product owner.
- Stories are broken down to tasks by team members.

Story points:

Story points are used to estimate the relative effort or complexity of implementing a user story or task.

Instead of using hours or days, which can be subjective and vary between team members, Agile teams often use story points to express the effort involved in completing a particular piece of work.

The concept is based on the Fibonacci sequence (1, 2, 3, 5, 8, 13, etc.) or other scales.

Ex:

E	M	D
10	20	30
20	40	60

- A release will have multiple sprints.
- A sprint may last up to 2-4 weeks.
- A story will be completed in one sprint.

Acceptance criteria:

- Acceptance criteria is defined by product owner.
- Acceptance criteria provide specific conditions and criteria that must be met for a user story or a task to be considered complete.
- These are a set of conditions or criteria that must be satisfied for a user story or a feature to be considered complete and accepted by the stakeholders.

Planning poker:

- Where multiple team members estimate on a scale.
- Estimates the complexity or effort of user stories or tasks during sprint planning.
- It is a collaborative and interactive approach that involves team members discussing and reaching a consensus on the effort required for each item.

Dependencies:

- Dependencies in project management and software development refer to the relationships between tasks, activities, or elements that rely on each other for successful completion.
- The dependencies gives delays.

Release plan:

- A release plan is a high-level document that outlines the scope, timeline, and key deliverables for a software release.
- It provides a strategic overview of what features or enhancements will be included in a specific release and when it will be delivered to users or customers.

Product backlog:

- It serves as the single source of requirements for any changes to be made to the product.
- The product backlog is a prioritized and dynamic list of features, user stories, and tasks facilitating continuous refinement and adaptation based on changing requirements and priorities.

Sprint Planning:

- It is to plan the sprints.
- The primary goal of sprint planning is to define what work will be accomplished during the upcoming sprint and how it will be delivered.
- The sprint planning may last up to 1 hour per week.

Daily standups:

- To make sure execution is going on in right directions.
- In the daily standup, what I did yesterday is discussed.

- What I plan today is discussed.
- Any Blockers.

Swim lanes:

- They provide a way to categorize and separate tasks or activities based on specific criteria.
- Swim lanes are represented as horizontal or vertical divisions on a board or chart.
- They are particularly helpful in visualizing complex processes and ensuring that tasks are appropriately categorized.

Staging area:

- A staging area refers to a designated space or environment where data, code, or changes are temporarily placed and tested before being moved to a production environment.

Load testing:

- Used to evaluate how well the system can handle a particular number of concurrent users or transactions, identifying potential bottlenecks and performance issues.
- For example in the amount section of banking application the user writes 1000000, instead of 100000.

Sprint Review:

- It occurs in the end of the each sprint.
- It provides an opportunity for the Scrum Team, stakeholders, and the Product Owner to inspect the increment of work delivered during the sprint and to adapt the product backlog based on the feedback received.
- It can last up to 1 hour.

Refined Backlog:

- The product owner refines, keeps adding details of requirement.

Daily standup:

- It is a short and daily meeting within the Scrum framework of Agile development. It is a crucial communication and coordination event for the Scrum Team, fostering collaboration and keeping everyone informed about the progress toward the sprint goal.
- 15 minutes of catch up with the team.

Retrospective:

- A Retrospective is a collaborative meeting at the end of each sprint where the Scrum Team reflects on what went well, identifies areas for improvement, and defines actionable items for continuous enhancement in processes and collaboration.

- It may last up to 1 hour.

Slicing:

- Breaking down a larger piece of functionality, such as a feature or user story, into smaller, more manageable and deliverable parts.
- The factors are: Independent, Negotiation, Valuable, Estimable, Small, Testable.

Continous Integration and Continous deployment:

- Continuous Integration involves automatically integrating code changes from multiple developers into a shared repository, with automated testing.
- Continuous deployment where the system is ready but is released on demand.
- For example, Flipkart big billions day.

Agile Values:

- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over Contract negotiation.
- Responding to change over plans.

Conclusion:
In the banking sector, Agile methodologies enhance adaptability, collaboration, and efficiency. Rapid iterations and customer-centric approaches enable quicker response to market changes. Hence it plays a very important role in banking sector. Agile fosters innovation reduces time-to-market for new services, and ensures the delivery of valuable, high-quality solutions in the dynamic and competitive financial industry.