Aim: To Study Agile Methodology and Test case Management using JIRA Tool & To Create Scrum Board for Scrum Master using JIRA Tool.

Theory:

Introduction to Agile Methodology

Agile methodology is an iterative approach to software development that focuses on flexibility, collaboration, and customer feedback. It follows principles from the Agile Manifesto, emphasizing working software, customer collaboration, and responsiveness to change. Agile methodologies include Scrum, Kanban, and Extreme Programming (XP).

Test Case Management in Agile

Test case management in Agile ensures that testing is integrated throughout the development process rather than being a separate phase. JIRA, a widely used project management tool, supports test case management through plugins like Zephyr and Xray. Key aspects include:

- **Creating Test Cases**: Test cases are written in JIRA to verify software functionality.
- **Executing Tests**: Test execution is tracked within sprints to ensure quality assurance.
- **Defect Tracking**: Bugs and defects are logged and linked to user stories.
- **Continuous Integration**: Automated tests can be integrated with JIRA for real-time tracking.

Creating a Scrum Board in JIRA

A **Scrum Board** in JIRA helps Scrum Masters manage sprint tasks efficiently. The process includes:

1. **Creating a New Scrum Project**: JIRA provides templates for Agile projects.
2. **Defining Backlog Items**: Product backlog items (PBIs) or user stories are added.
3. **Sprint Planning**: Tasks are assigned to sprints, ensuring proper workload distribution.
4. **Tracking Progress**: The board visually represents tasks in "To Do," "In Progress," and "Done" columns.
5. **Sprint Review & Retrospective**: After each sprint, progress is reviewed, and improvements are discussed.

By utilizing JIRA for Agile project management, teams improve efficiency, collaboration, and project transparency.

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➢ Implementation:

JIRA Account Creation:

1) Open altlassian.com webpage

2) Select products and click on Jira Software

3) Click on "Get it free"

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4) Select Continue with Google

5) Give a name to your site.

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6)Add project details

7) Implement Agile and Scrum using various features of JIRA tool such as sprints, timeline, scrum board, make a team and add members,etc

Software Engineering & Project Management Lab Experiment No: - 06 & 07

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8) Version Creation

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9) Creating Issues for new Version

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10) GitHub connection

GitHub Repo Link:- https://github.com/AdityaParulekar18/SEPM_Aditya-T21-72_Exp6-7.git

Conclusion: Thus, we have successfully implemented Agile Methodology and Scrum using JIRA tool.