

Department of Computer Engineering

Academic Term: First Term 2

Class: T.E /Computer Sem – V / Software Engineering

Practical No:	2
Title:	Implementing Project using SCRUM method on JIRA Tool
Date of Performance:	01-08-2023
Roll No:	9643
Team Members:	Omkar,Soham,Emmanuel

Rubrics for Evaluation:

Sr. No	Performance Indicator	Excellent	Good	Below Average	Total Score
1	On time Completion & Submission (01)	01 (On Time)	NA	00 (Not on Time)	
2	Theory Understanding (02)	02(Correct)	NA	01 (Tried)	
3	Content Quality (03)	03(All used)	02 (Partial)	01 (rarely followed)	
4	Post Lab Questions (04)	04(done well)	3 (Partially Correct)	2(submitted)	

Signature of the Teacher:

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EXPERIMENT 2

Page | 7

Lab Experiment 02

Experiment Name: Implementing Project Using Scrum Method on JIRA Tool in Software Engineering

Objective: The objective of this lab experiment is to introduce students to the Scrum framework and its implementation using the JIRA tool. Students will gain practical experience in managing a software project using Scrum principles and learn how to utilize JIRA as a project management tool to track and organize tasks, sprints, and team collaboration.

Introduction: Scrum is an agile project management methodology that promotes iterative development, collaboration, and continuous improvement. JIRA is a widely used tool that supports Scrum practices, providing teams with features to plan, track, and manage software projects effectively.

Lab Experiment Overview:

1. **Introduction to Scrum:** The lab session begins with an overview of the Scrum framework, including its roles (Product Owner, Scrum Master, and Development Team), events (Sprint Planning, Daily Standup, Sprint Review, and Sprint Retrospective), and artifacts (Product Backlog, Sprint Backlog, and Increment).
2. **JIRA Tool Introduction:** Students are introduced to the JIRA tool and its capabilities in supporting Scrum project management. They learn to create projects, epics, user stories, tasks, and sub-tasks in JIRA.
3. **Defining the Project:** Students are assigned a sample software project and create a Product Backlog, listing all the required features, user stories, and tasks for the project.
4. **Sprint Planning:** Students organize the Product Backlog into Sprints, selecting user stories and tasks for the first Sprint. They estimate the effort required for each task using story points.
5. **Implementation in JIRA:** Students use the JIRA tool to create a Sprint Backlog, add the selected user stories and tasks, and assign them to team members.
6. **Daily Standup:** Students conduct a simulated Daily Standup meeting, where they update the progress of their tasks and discuss any impediments they are facing.
7. **Sprint Review and Retrospective:** At the end of the Sprint, students review the completed tasks, demonstrate the implemented features, and gather feedback from their peers. They also conduct a Sprint Retrospective to identify areas of improvement for the next Sprint.
8. **Continuous Iteration:** Students continue implementing subsequent Sprints, repeating the Sprint Planning, Daily Standup, and Sprint Review & Retrospective events.
9. **Conclusion and Reflection:** At the end of the lab experiment, students reflect on their experience with Scrum and JIRA, discussing the advantages and challenges they encountered during the project.

Learning Outcomes: By the end of this lab experiment, students are expected to:

- Understand the Scrum framework and its principles in agile project management.

Dr. B. S. Daga

Fr. CRCE, Mumbai

Page | 8

- Gain practical experience in using the JIRA tool for project management in a Scrum environment.
- Learn to create and manage Product Backlogs, Sprint Backlogs, and track progress using JIRA.
- Develop collaborative skills through Daily Standup meetings and Sprint Reviews.
- Gain insights into the iterative nature of software development and the importance of continuous improvement.

Pre-Lab Preparations: Before the lab session, students should familiarize themselves with the Scrum framework and the basics of the JIRA tool. They should review Scrum roles, events, and artifacts, as well as the features of JIRA relevant to Scrum implementation.

Materials and Resources:

- Computers with internet access for accessing the JIRA tool
- Project brief and details for the sample software project
- Whiteboard or projector for explaining Scrum concepts

Conclusion: The lab experiment on implementing a project using Scrum on the JIRA tool offers students a hands-on experience in agile project management. By utilizing Scrum principles and JIRA's capabilities, students learn to collaborate effectively, manage tasks efficiently, and adapt to changing requirements. The practical exposure to Scrum and JIRA enhances their understanding of agile methodologies, equipping them with valuable skills for real-world software development projects. The lab experiment encourages students to embrace the agile mindset, promoting continuous improvement and customer-centric software development practices.

EPIC

Create issue



Project *



News portal (NP)



1

Import issues



Issue type *



Story



[Learn more](#)

Status ⓘ

To Do ▾

This is the issue's initial status upon creation

Summary *

It is a portal about news which provides user with different news (consist of 4 to 5 categories)

Description

BACKLOG

▼ Backlog (2 issues)

0 0 0

Create story



NP-1 It is a portal about news which provides user with d...



TO DO ▾



NP-2 As for user view it needs good quality of images an...



TO DO ▾



+ Create issue

SPRINT

NP Sprint 1

Add dates (2 issues)

000

Start sprint

☒ NP-1 It is a portal about news which provides user with d...

-

TO DO

☐ NP-2 As for user view it needs good quality of images an...

-

TO DO


+ Create issue

ASSIGNING

To Do

⚡ Actions

Pinned fields

Click on the  next to a field label to start pinning.

Details

Assignee

ST Sania Tuscano

Labels

None

Sprint

NP Sprint 1


Story point estimate

3

Reporter

ST Sania Tuscano

Created 12 minutes ago

 Configure

FINAL BOARD

Q1. Ans:

Aspect	Scrum Framework	Traditional Project Management
Project Structure	Iterative and incremental	Sequential
Roles and Responsibilities	Self-organized cross-functional teams	Hierarchical roles (project manager, team members)
Planning and Estimation	Agile planning and adaptive estimates	Detailed upfront planning and fixed estimates
Change Management	Embraces change during the project	Change may be difficult to accommodate
Communication	Frequent communication and collaboration	Formal communication channels
Risk Management	Continuous risk assessment and mitigation	Early risk identification and management
Progress Monitoring	Regular Sprint reviews and daily stand-ups	Milestone-based progress tracking
Customer Involvement	Regular feedback and customer collaboration	Limited customer involvement
Adaptability to Change	Easily adaptable to changing requirements	May require significant effort to accommodate changes
Documentation	Emphasizes working software over comprehensive documentation	Comprehensive documentation throughout the project
Flexibility vs. Predictability	Prioritizes flexibility and responsiveness	Emphasizes predictability and meeting predefined plans
Time and Cost Control	Continuous monitoring and adjustment of scope	Adherence to fixed schedules and budgets
Project Success Criteria	Working software that meets customer needs	Meeting predefined project scope, schedule, and budget

The effectiveness of the Scrum framework or traditional project management methodologies may vary depending on the project's specific requirements, team dynamics, and organizational culture.

Q2. Ans: The Scrum Master plays a crucial role in handling conflicts within the development team and resolving impediments to maintain a smooth project flow in the Scrum framework. Their primary focus is on ensuring that the team can work together effectively and efficiently to deliver high-quality products. Following are roles of Scrum master in these aspects:

1. **Conflict Resolution:** The Scrum Master acts as a facilitator and mediator when conflicts arise within the development team. They create a safe and supportive environment for open communication, allowing team members to express their concerns and viewpoints. By actively listening and understanding each team member's perspective, the Scrum Master can help identify the root cause of conflicts and work towards finding amicable solutions. Their neutral stance ensures that all team members are treated fairly and that conflicts do not escalate, ultimately promoting a collaborative and productive team dynamic.
2. **Improving Communication:** Effective communication is essential for a successful Scrum team. The Scrum Master encourages transparent communication among team members, ensuring that everyone understands their roles, responsibilities, and project objectives.
3. **Impediment Removal:** The Scrum Master is responsible for identifying and removing impediments that hinder the team's progress. They proactively work with the team to address any roadblocks or obstacles that prevent the team from achieving their sprint goals.
4. **Coaching and Empowering the Team:** The Scrum Master serves as a coach and mentor to the development team, supporting their professional growth and continuous improvement. They encourage self-organization within the team, empowering them to make decisions and take ownership of their work.
5. **Facilitating Retrospectives:** Regular retrospectives provide an opportunity for the team to reflect on their work processes, identify areas for improvement, and discuss potential solutions. The Scrum Master facilitates these retrospectives to ensure that the team's feedback is effectively gathered, and action items are addressed in subsequent sprints.

The Scrum Master acts as a servant leader, focusing on the team's well-being and productivity. By fostering open communication, addressing conflicts, and removing impediments, they create an environment conducive to collaboration, innovation, and successful project delivery within the Scrum framework.