DAYANANDA SAGAR COLLEGE OF ARTS SCIENCE AND COMMERCE

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Department of Computer Application-MCA(BU)

Agile Case Study Report:

"CRM System Implementation using Scrum and Jira"

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1.Introduction

In today's software business, flexibility and customer satisfaction are two of the most important success determinants. Conventional software development methodologies like Waterfall fail to cope with the fast-evolving customer needs. To combat such problems, organizations resort to Agile methods more often than not, which focus on iterative development, team collaboration, and ongoing feedback.

Out of all the various Agile frameworks, Scrum is perhaps the most popular one. Scrum defines the development cycle in terms of short, numbered iterations known as sprints, which usually have a time frame of two to four weeks. Every sprint result in a potentially shippable product increment, so stakeholders experience continuous progress. Scrum also lays down clear roles—Product Owner (PO), Scrum Master (SM), and the Development Team (DT)—who all play important roles in the success of the project.

To manage Agile projects effectively, specific tools are employed to plan, track, and monitor. Atlassian's Jira is among the most widely used Agile project management tools. It offers product backlog creation, sprint planning, task boards, and progress visualization through burndown and velocity charts. All these features of Jira make it an excellent tool for Agile project management.

This is a case study of the creation of a Customer Relationship Management (CRM) tool for freelancers and small enterprises. The CRM tool is created to facilitate users in managing the interaction with clients, monitoring leads, and following up effectively. The project was developed based on the Scrum methodology and coordinated via Jira to foster transparency, flexibility, and proper teamwork.

This report discusses a case study that describes the development of a Customer Relationship Management (CRM) tool designed for freelancers and small businesses. The CRM system will provide users with a means for tracking client interactions, monitoring leads, and organizing follow-ups. The project was conducted in compliance with the Scrum framework of antifragility using Jira for project management; thus, providing visibility, and allowing for ongoing adaptation, and delivering transparency to the team.

2.Case Study Background

The chosen case study is for the development of a Customer Relationship Management (CRM) tool for freelancers and small enterprises. As a CRM system, the tool allows the user to manage service clients more easily with features to save a client profile, track leads, add notes, and set reminders for follow-up. This means the user is able to better consolidate pieces from their communication history, will avoid missed opportunities and hopefully improve their workflow.

Case study Objective

The main focus of this case study is to practice Agile development (Scrum Framework) in managing the development of the CRM tool. The study will show how Scrum roles, Scrum ceremonies and Scrum artifacts are using in actual practice with the aid of the Jira platform.

Scrum Team Structure

The Scrum team for this case study has the following roles:

- Product Owner (PO): This role is responsible for working with the stakeholders to define their requirements, maintain the product backlog, and prioritize user stories.
- Scrum Master (SM): This role is responsible for leading Scrum ceremonies, removing impediments, and ensuring that Agile practices are embraced.
- Development Team (DT): This is a team of 4 developers who are responsible to design, implement and test all the functionality of the CRM.

Case Study Approach

The development process for the CRM is divided into two sprints:

- Sprint 1: Focus on developing basic client management functionalities, such as creating a client profile, adding a client note, and viewing the client list.
- Sprint 2: Expanded functionality with advanced features, including lead tracking, reminders for follow-ups, and client filtering.

3.Agile Methodology Application

Agile processes are focused on iterative development, teamwork, and continuous value delivery. The Scrum framework was used to manage the development of the CRM tool, with the work divided into Epics, User Stories, and Sprints. All progress was tracked through Jira.

3.1 Case Study Type & Tool

- Case Study Type: Management System (since a CRM helps manage clients, leads, and follow ups).
- Agile Tool: Jira (to create a backlog, do sprint planning, use task boards and Agile reports).

3.2 Epics

The high-level requirements were divided into the following Epics:

1. Client Management
2. Lead Tracking
3. Follow-ups & Reminders
4. Client Filtering & Search

3.3 User Stories

The Product Owner defined the following user stories for each sprint:

Sprint	User Story Description	Priority
1	As a user, I want to create a client profile so that I can manage client information in one place.	High
1	As a user, I want to add notes to a client profile so that I can keep track of important details.	Medium
1	As a user, I want to view a list of my clients so that I can easily navigate my contacts.	Medium
2	As a user, I want to add and manage leads so that I can track potential clients.	High
2	As a user, I want to set reminders for follow-ups so that I don't miss important interactions.	Medium
2	As a user, I want to filter my clients based on status so that I can organize them easily.	Medium

Table 3.3.1 User Stories Breakdown

3.4 Sprint Planning

The Scrum team conducted sprint planning meetings to select and prioritize stories for each sprint.

- **Sprint 1 Goal:** Build the foundation of client management. This included creating profiles, adding notes, and enabling client list views.
- **Sprint 2 Goal:** Extend the CRM with advanced features such as lead management, follow-up reminders, and client filtering.

Each story was further broken into **subtasks**:

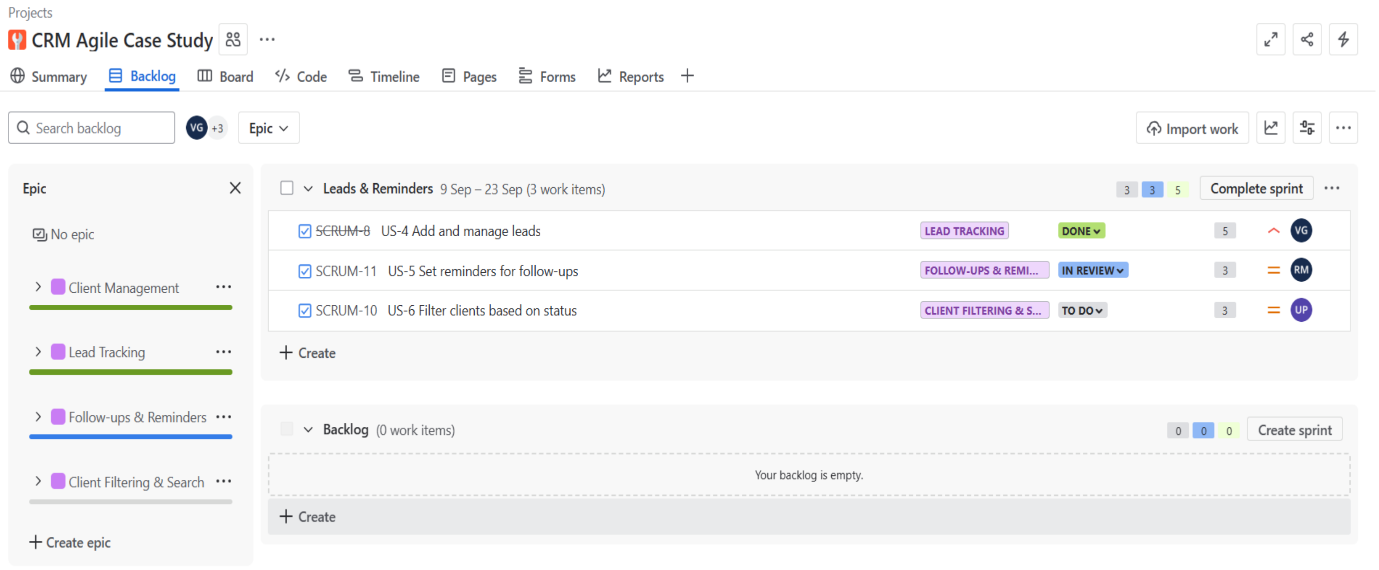
- Frontend design and implementation.
- Backend database integration.
- Testing (unit testing and integration testing).

4.Jira Implementation

To manage the CRM case study effectively, the Jira platform was used to create the product backlog, plan sprints, and track the team's progress. Jira provided visibility of ongoing tasks, helped monitor sprint progress, and generated useful Agile metrics such as burndown and velocity charts.

4.1 Backlog Creation

- Epics and corresponding User Stories were entered into the Jira backlog.
- User Stories were prioritized based on business value and complexity.
- Each story was assigned story points to estimate the effort required.



Leads & Reminders 9 Sep – 23 Sep (3 work items) 3 3 5

☑ ~~SCRUM-8~~	US-4 Add and manage leads	LEAD TRACKING	DONE	5	^	VG
☑ SCRUM-11	US-5 Set reminders for follow-ups	FOLLOW-UPS & REMI...	IN REVIEW	3	=	RM
☑ SCRUM-10	US-6 Filter clients based on status	CLIENT FILTERING & S...	TO DO	3	=	UP

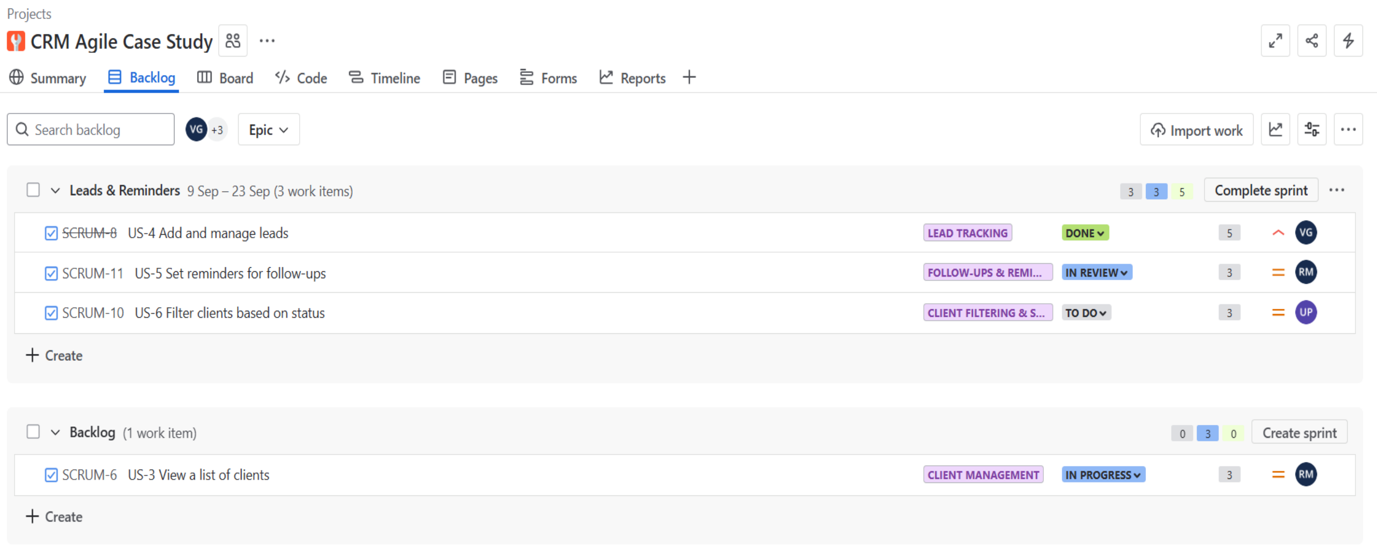
Backlog (0 work items) 0 0 0

Your backlog is empty.

Figure 1: Jira Backlog

4.2 Sprint Setup

- Two sprints were created in Jira.
- **Sprint 1:** Focused on client management (profiles, notes, and client list).
- **Sprint 2:** Focused on advanced features (leads, reminders, filtering).
- Stories were moved from the backlog into the respective sprint.



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☑ SCRUM-10	US-6 Filter clients based on status	CLIENT FILTERING & S...	TO DO	3	=	UP

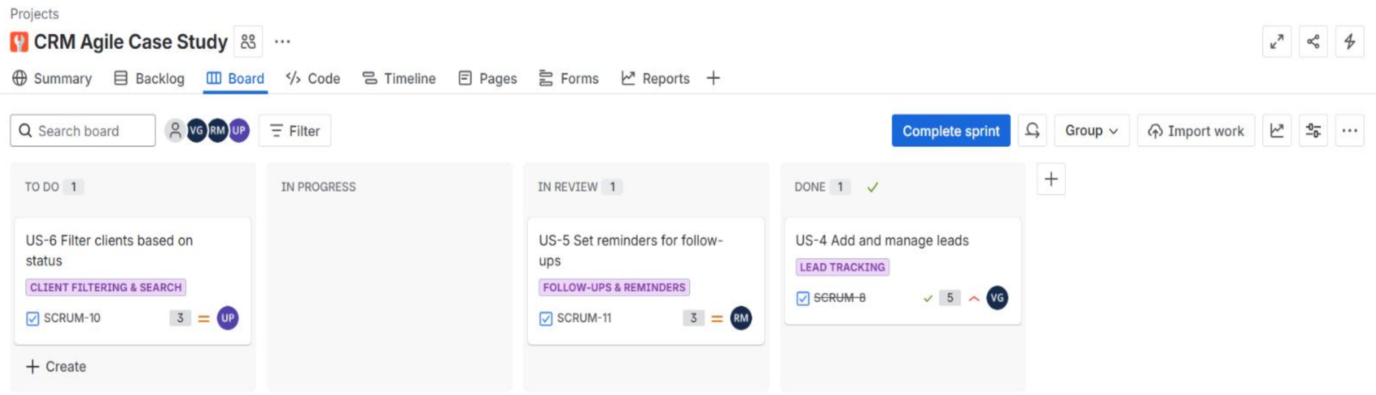
Backlog (1 work item) 0 3 0

☑ SCRUM-6	US-3 View a list of clients	CLIENT MANAGEMENT	IN PROGRESS	3	=	RM

Figure 2: Sprint Planning in Jira

4.3 Scrum Board

- A Scrum board was set up with three standard columns:
  - **To Do** → tasks not yet started
  - **In Progress** → tasks currently being developed
  - **Done** → completed tasks
- Team members updated progress daily by moving tasks across the board.



CRM Agile Case Study

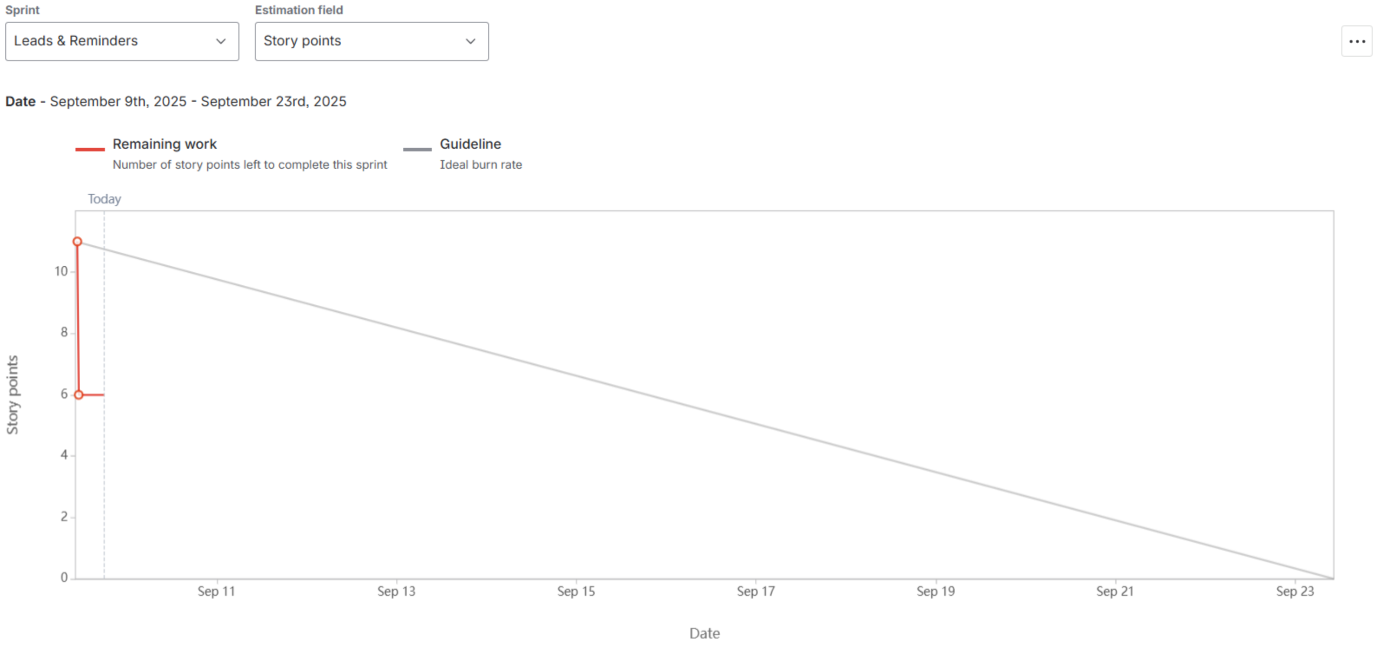
TO DO 1	IN PROGRESS	IN REVIEW 1	DONE 1 ✓
US-6 Filter clients based on status CLIENT FILTERING & SEARCH ☑ SCRUM-10 3 = UP + Create		US-5 Set reminders for follow-ups FOLLOW-UPS & REMINDERS ☑ SCRUM-11 3 = RM	US-4 Add and manage leads LEAD TRACKING ☑ ~~SCRUM-8~~ ✓ 5 ^ VG

Figure 3: Scrum Board for Sprint 2

4.4 Agile Charts(Results and Metrics)

Jira automatically generated metrics that allowed the team to monitor progress:

- **Burndown Chart:** Showed the remaining story points in Sprint 2, helping track whether work was on pace to finish.
- **Velocity Chart:** Displayed the number of story points completed in each sprint, reflecting the team's capacity.
- **Pie Chart:** Showed task distribution across statuses (To Do, In Progress, Done).

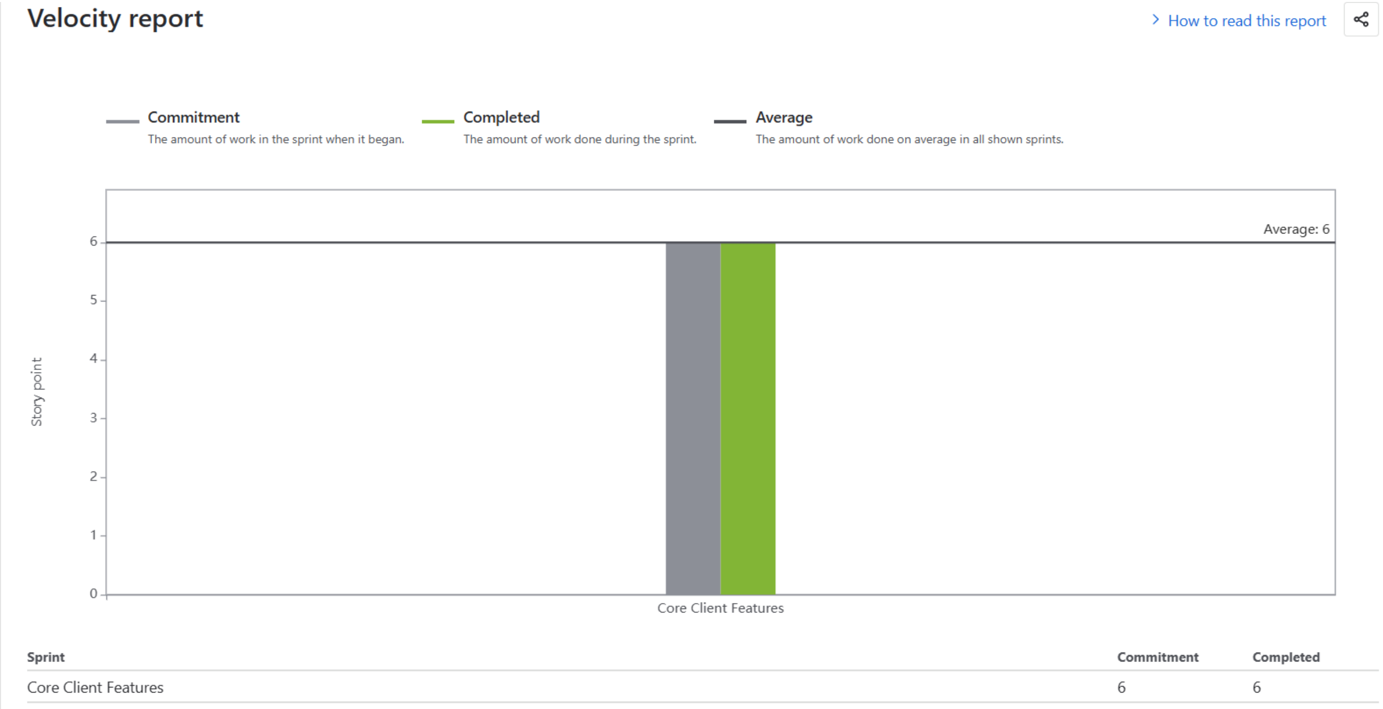

Sprint: Leads & Reminders

Estimation field: Story points

Date - September 9th, 2025 - September 23rd, 2025

-

Figure 4: Burndown Chart



Velocity report

Commitment — The amount of work in the sprint when it began.

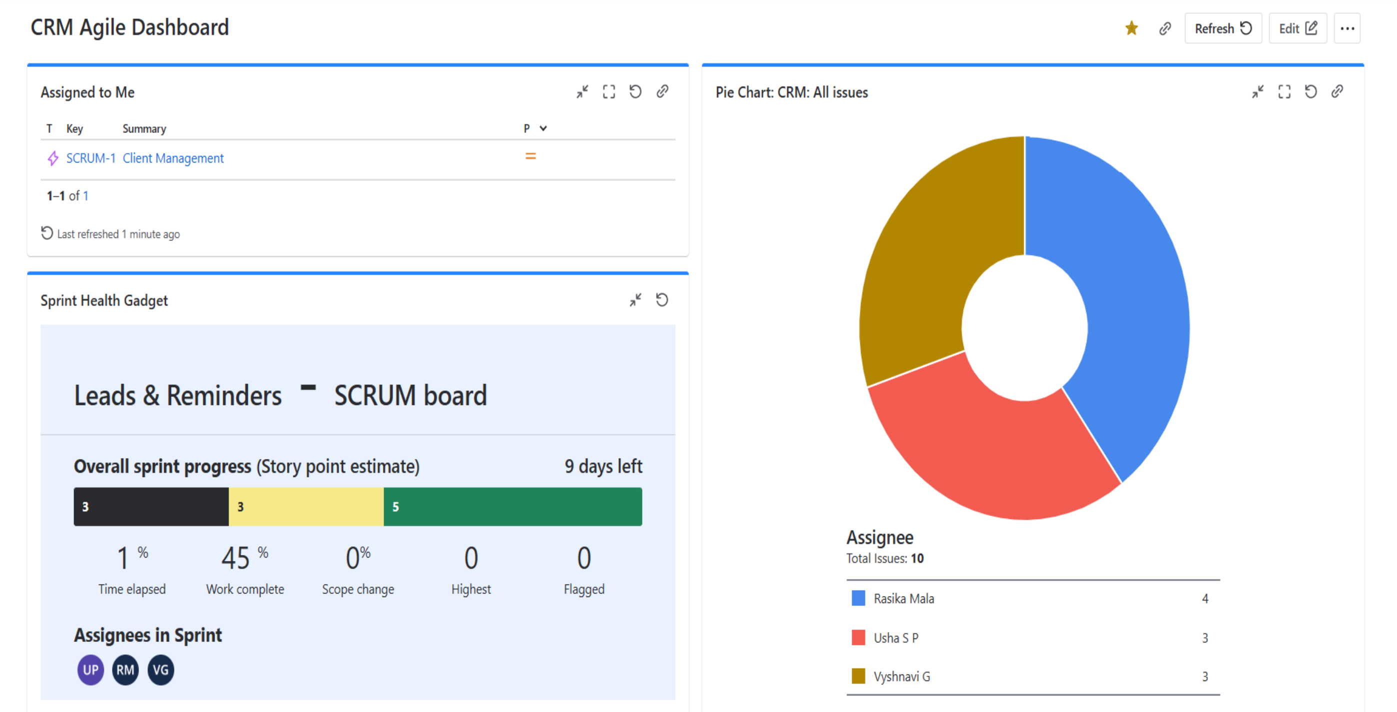
Completed — The amount of work done during the sprint.

Average — The amount of work done on average in all shown sprints.

Sprint	Commitment	Completed
Core Client Features	6	6

Figure 5: Velocity Chart

5.Dashboard Overview



CRM Agile Dashboard

Assigned to Me

T	Key	Summary	P
⚡	SCRUM-1	Client Management	=

1–1 of 1

Last refreshed 1 minute ago

Sprint Health Gadget

Leads & Reminders - SCRUM board

Overall sprint progress (Story point estimate) 9 days left

1 % Time elapsed

45 % Work complete

0% Scope change

0 Highest

0 Flagged

Assignees in Sprint

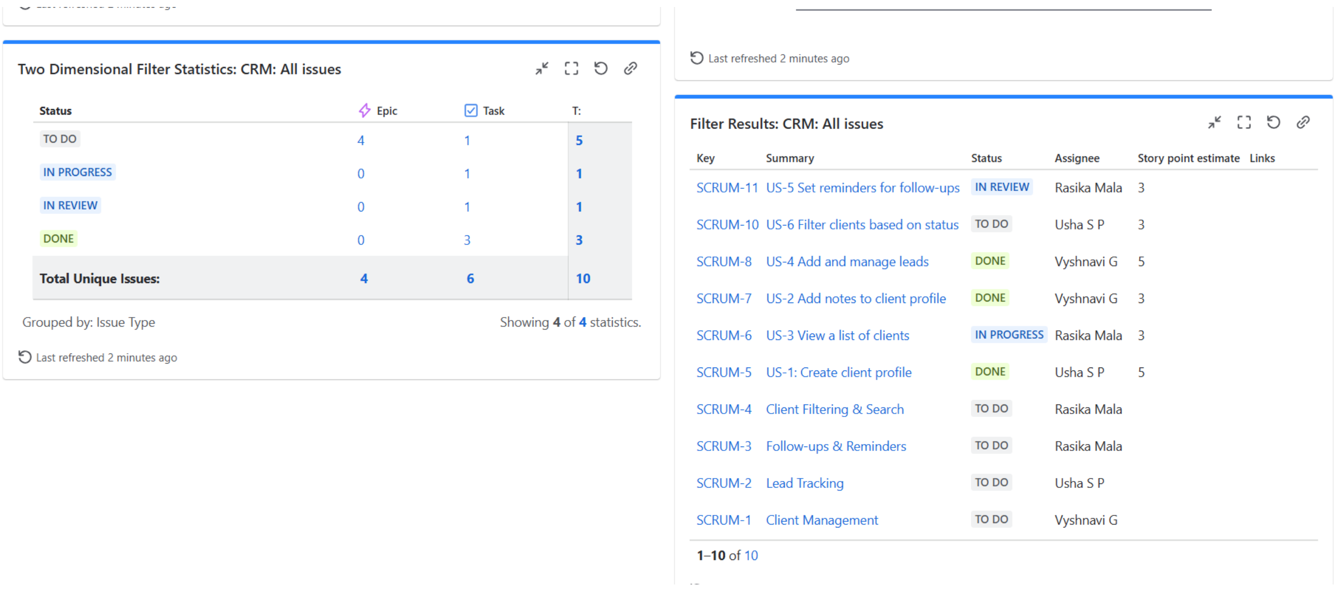
Pie Chart: CRM: All issues

Assignee

Total Issues: **10**

Assignee	Issues
🟦 Rasika Mala	4
🟥 Usha S P	3
🟨 Vyshnavi G	3

Figure 6 : Jira Dashboard(Assigned to me ,Sprint Health, Pie Chart)



Two Dimensional Filter Statistics: CRM: All issues

Status	Epic	Task	T:
TO DO	4	1	5
IN PROGRESS	0	1	1
IN REVIEW	0	1	1
DONE	0	3	3
Total Unique Issues:	4	6	10

Grouped by: Issue Type

Showing **4** of **4** statistics.

Last refreshed 2 minutes ago

Last refreshed 2 minutes ago

Filter Results: CRM: All issues

Key	Summary	Status	Assignee	Story point estimate	Links
SCRUM-11	US-5 Set reminders for follow-ups	IN REVIEW	Rasika Mala	3	
SCRUM-10	US-6 Filter clients based on status	TO DO	Usha S P	3	
SCRUM-8	US-4 Add and manage leads	DONE	Vyshnavi G	5	
SCRUM-7	US-2 Add notes to client profile	DONE	Vyshnavi G	3	
SCRUM-6	US-3 View a list of clients	IN PROGRESS	Rasika Mala	3	
SCRUM-5	US-1: Create client profile	DONE	Usha S P	5	
SCRUM-4	Client Filtering & Search	TO DO	Rasika Mala		
SCRUM-3	Follow-ups & Reminders	TO DO	Rasika Mala		
SCRUM-2	Lead Tracking	TO DO	Usha S P		
SCRUM-1	Client Management	TO DO	Vyshnavi G		

1–10 of 10

Figure 7: Jira Dashboard(Two dimensional, Filter Results)

5.1 Gadgets used in Jira Dashboard

□ **Filter Results**

- Displays all issues (Epics, Stories, Tasks) from the CRM project.
- Useful for quickly checking backlog items and their status.

□ **Sprint Health**

- Shows real-time sprint status: completed, in progress, and to-do issues.
- Helps track if the sprint is on schedule.

□ **Two-Dimensional Filter Statistics**

- Displays issues grouped by **Epic vs Status**.
- Provides an overview of how much work is completed per Epic.

□ **Pie Chart**

- Workload distribution visualized as a chart.
- Configured by **Assignee** to show how tasks are divided among the three team members.

□ **Assigned to Me**

- Lists all issues assigned to the currently logged-in user.
- Helps each team member focus on their pending tasks.

6.Sprint Planning & Execution

6.1 Sprint Planning

The project was divided into two sprints to ensure incremental delivery of features:

- **Sprint 1 Goal:** Deliver the core client management features, including creating client profiles, adding notes, and viewing the client list. *(User Stories: US-1, US-2, US-3)*

- **Sprint 2 Goal:** Implement advanced CRM features such as lead tracking, setting reminders, and filtering/searching clients. *(User Stories: US-4, US-5, US-6)*

The backlog was reviewed, and stories were prioritized based on business importance. Each story was assigned story points for estimation and distributed among the three team members to balance workload.

6.2 Sprint Execution

- Once Sprint 1 was started, issues were moved to the **Active Sprint Board** in Jira, which tracked tasks across the workflow: *To Do → In Progress → Done.* This allowed the team to visualize progress and ensure transparency in daily updates.
- To monitor progress in real time, the **Sprint Health Gadget** was used. It displayed the distribution of completed, pending, and in-progress issues, along with task assignment per team member. This helped in identifying bottlenecks early

7. Team Collaboration and Workload Distribution

Team collaboration was a key element in the successful execution of this Agile case study. Jira facilitated transparency and accountability by allowing each member to see assigned tasks, sprint progress, and overall workload distribution.

7.1 Collaboration in Jira

- Each user story was assigned to one of the three team members based on expertise and availability.

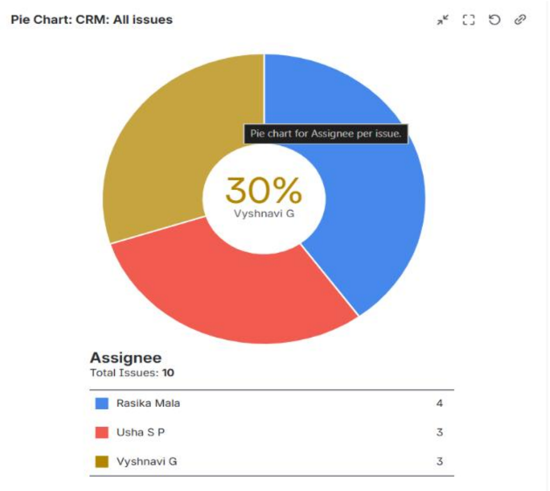
- The Scrum Board allowed the entire team to track daily progress in real time, ensuring visibility into who was working on which task.

- The Assigned to Me gadget enabled individual members to focus on their own pending tasks, while still being aware of team-level progress.

- Daily stand-ups were simulated through updates in Jira by moving issues across columns (*To Do → In Progress → Done*).

7.2 Workload Distribution

- The **Pie Chart Gadget (by Assignee)** was used to visualize how tasks were divided among the team members. This chart clearly showed whether work was distributed equally and highlighted potential imbalances.



Assignee
Total Issues: **10**

🟦 Rasika Mala	4
🟥 Usha S P	3
🟨 Vyshnavi G	3

Figure 8: Jira Pie Chart showing workload distribution among the three team members.

8. Conclusion & Learnings

The CRM Agile Case Study demonstrated how Agile principles and Scrum practices can be effectively applied to software development projects. By breaking down requirements into Epics and User Stories, the team was able to prioritize features, plan sprints, and deliver functionality incrementally. This iterative approach ensured that core client management features were delivered first, followed by advanced functionalities like lead tracking, reminders, and client filtering.

Jira played a central role in managing the project. From backlog creation and sprint planning to real-time tracking and reporting, Jira provided the tools necessary for transparent collaboration. Dashboards, Sprint Health, Burndown Charts, and Velocity Reports helped the team monitor progress and adapt quickly to any changes.

Working collaboratively as a team of three, tasks were distributed fairly using Jira’s assignment and workload visualization features. This fostered accountability and made progress visible to everyone involved. The case study also simulated real-world Agile ceremonies such as sprint reviews and retrospectives, reinforcing practical knowledge of the Scrum framework.

Key learnings from the project include:

- The importance of **prioritization** when creating a backlog.
- How **sprint planning** ensures achievable goals within a fixed timeframe.
- The role of **transparency and visibility** in team collaboration.
- How **Agile metrics** (Burndown, Velocity, Sprint Reports) help evaluate performance.
- The effectiveness of Jira as a tool for applying Agile methodology in practice.

In conclusion, this case study not only enhanced the understanding of Agile and Scrum but also provided hands-on experience in using Jira as a project management platform. The exercise successfully bridged the gap between theoretical Agile concepts and their practical implementation in software engineering.