USABILITY TESTING

Usability testing involves measuring typical users performance on carefully prepared tasks that are typical of those for which the system was designed. The techniques associated with usability testing are: user testing in a controlled environment; observation of user activity in the controlled environment and the field; and questionnaires and interviews. This observational data is used to calculate performance times, identify errors, and help explain why the users did what they did. (Beyond Human-Computer Interaction, 2002)

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Introduction

Jira is a project management and issue-tracking tool used by teams across software development, IT, marketing, operations, program and product management, as well as agile, DevOps, task management, bug tracking, requirements and test case management, and campaign management. It provides a centralized platform for agile methodologies, helps teams organize work and prioritize tasks, and integrates with other development tools to support the entire software development lifecycle and beyond.

Jira can be configured to fit any type of project. Teams can start with a project template or create their own custom workflow. Jira work items, also known as tasks, track each piece of work that needs to pass through the workflow steps to completion. Customizable permissions enable admins to determine who can see and perform which actions. With all project information in place, reports can be generated to track progress, productivity, and ensure nothing slips. (Jira Official Website- https://www.atlassian.com/software/jira/guides/getting-started/who-uses-jira#:~:text=Hosting%20options-,Jira%20for%20teams,300K+)

Usability Goals

Usability focuses on ensuring that interactive products are easy to learn, effective to use, and enjoyable, by optimizing user interactions to help people efficiently perform their tasks.

Effectiveness refers to how good a system is at doing what it is supposed to do.

Efficiency refers to the way a system supports users in carrying out their tasks.

Safety involves protecting the user from dangerous conditions and undesirable situations.

Utility refers to the extent to which the system provides the right kind of functionality so that users can do what they need or want to do.

Learnability refers to how easy a system is to learn to use.

Memorability refers to how easy a system is to remember how to use, once learned.

Experience Goals

User experience goals are largely concerned with explicating the quality of the user experience.

Interaction design focuses on creating systems that are-

Satisfying

Enjoyable

Fun

Entertaining

Helpful

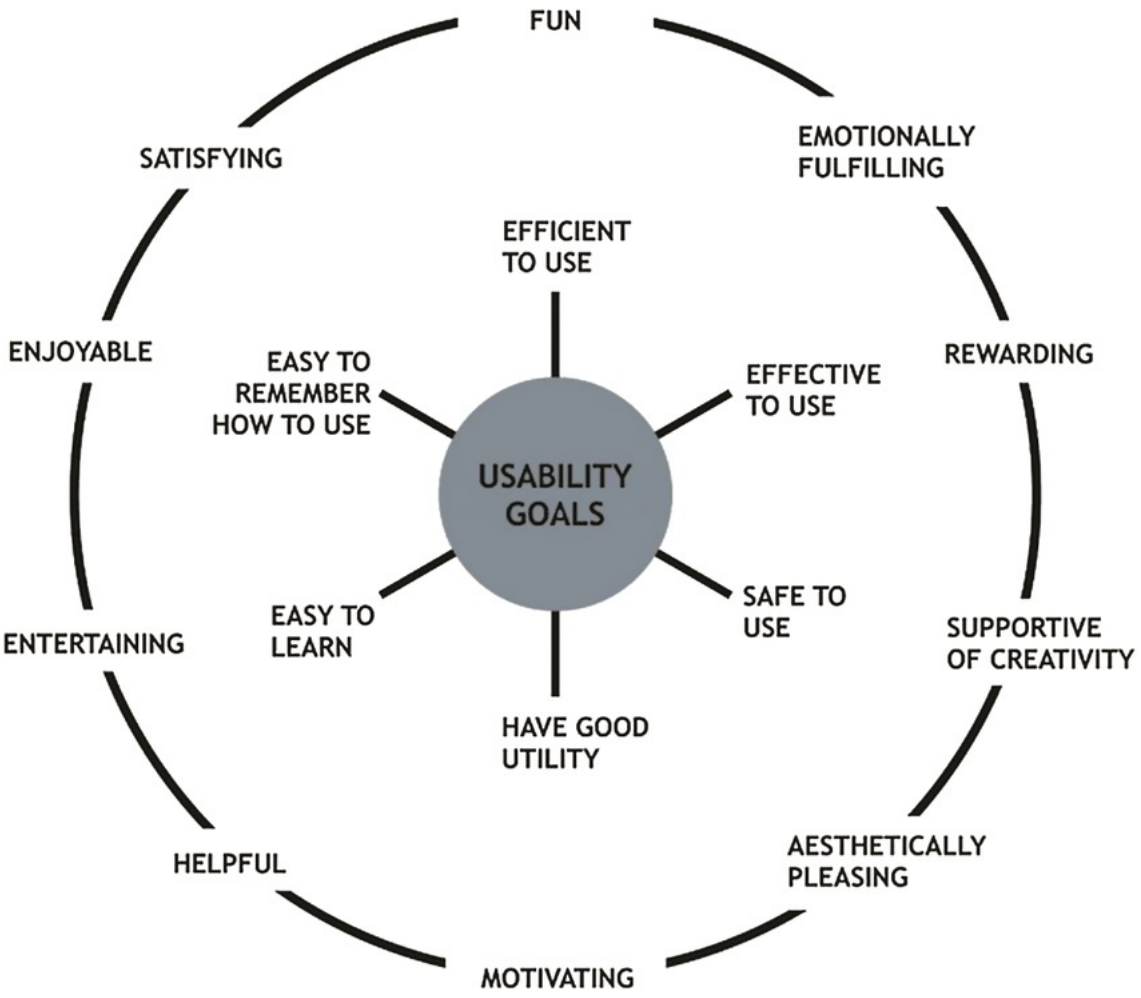
Motivating

Aesthetically pleasing

Supportive of creativity

Rewarding

Emotionally fulfilling



Usability and user experience goals. Usability goals are central to interaction design and are operationalized through specific criteria. User experience goals are shown in the outer circle and are less clearly defined.

Tasks

Easy

Drag the items from the “Backlog” to “To Do” on your board.

-Drag and drop the three items from the Backlog into the active sprint, then change the workflow from In “Design” to “To do”.

Set Project Background

-Click on “More actions” icon and go to “set space background” and select a photo.

Medium

Create a sprint, add scrums and add time

-In Backlog Select “create sprint” and then create these two scrums in the sprint-

- SCRUM-1: Finished reviewing classroom allocation conflicts.
- SCRUM-2: Check room availability for orientation event.

-Now set their timeline:

start date – 1st Nov, end date -19th Nov

Hard

Assign Tasks to their respective Epics and add labels, flags, story points etc.

-Go to Backlog and drag and drop all the scrums into SCRUM Sprint 1

-Select a Scrum and click on “+Epic” , assign each scrum to their respective Epic as mentioned below-

EPIC- **Placement and Career Cell Management**

- SCRUM- Introduce Superset platform to final-year students.
- SCRUM- Collect and upload last year's result on orange portal for superset.
- SCRUM- Schedule Q&A sessions to clarify placement-related doubts.
- SCRUM- Compile a list of companies visiting campus this semester.

EPIC- **Timetable and Schedule Management**

- SCRUM- Upload the final timetable to the college portal
- SCRUM- Allocate classes based on class size.
- SCRUM- Collect subject lists and faculty availability from each department.
- SCRUM- Check room availability and conflicts related to it.
- SCRUM- Assign extra classes for subjects lagging behind in hours.
- SCRUM- Update faculty timetables based on rescheduled sessions.

EPIC- **Student and Faculty Grievance Handling**

- SCRUM- Categorize complaints by type (academic, disciplinary, facility).
- SCRUM- Assign each complaint to the respective department head.
- SCRUM- Maintain a record of resolved and pending grievances for reports
- SCRUM-Send resolution updates to complainants.

-Change epic colour by clicking on "view parent" under Epic or directly click on the Epic in Jira work item.

- EPIC- Placement and Career Cell Management should be in Blue
- EPIC- Timetable and Schedule Optimization in yellow

  Add the following description to this Epic-

Organized class scheduling, room allocation, and faculty assignment while ensuring total hours per subject are met.

- EPIC- Student and Faculty Grievance Handling in teal

-Select SCRUM-11 (Collect and upload last year's result on orange portal for superset) and click on "Add Flag" under "More options" and then "Confirm".

-Go to "Board" and "filter" the tasks on the basis of "Parent", then select "Timetable and Schedule Organization".

-Change the priority of all the tasks under this parent to Highest

-Assign a Team- Management Team and set story points-2

-Now go to "Timeline" and drag the three Epics timelines so that all of them start from 01 November ,2025.

Link to the Cognitive Walkthrough

https://pearlstu-my.sharepoint.com/:x:/g/personal/minal_19276_stu_pearlacademy_com/IQDG5SK1MFtiT5IqgSvEb7swASpCjfKxD3YqOyf4vhzX5BI?e=8aecTq

Technical Specifications

Platform: Web-based Application

Software Specifications:

Backend: Java

Frontend: Jira Data Center React

Database: PostgreSQL 17, PostgreSQL 16, MySQL 8.4, Oracle 23ai,SQL Server 2022, SQL Server 2019, Azure SQL, Azure PostgreSQL, Flexible Server - one primary node only, PGpool-II

Payment Gateway: Stripe (an app), Credit/Debit Card, PayPal, Wire Transfer.

Screen Size:

Desktop (Minimum 1024*768)

Tablet (1024*768)

Mobile

Programming Languages: Java

Scope of Test Plan

Inclusions

Scrum Template

Navigation Bar:

Backlog

- Moving tasks from backlog to active sprints
- Testing features like assigning tasks to team members, adding flag, labels, estimating story points, adding and appointing sub-tasks, creating and choosing teams, setting timeline, setting priority, commenting, splitting task etc.
- Assigning Tasks to their respective Epics
- Customizing workflow stages and transitions
- Documenting user stories by creating epics, defining tasks, and adding relevant summaries

Board

- Interaction & Workflow of tasks
- Customizing and testing Workflow rules

Calendar

- Customizing unscheduled work and adjusting the dates of the tasks
- ...

Timeline

- Creating Epics, colour coding them and tailoring their timelines
- Adjusting and viewing by set time range

Space Settings

Exclusions

Everything other than what is mentioned above.

Testing Environment

Platforms Being Tested on:

Browsers:

- Google Chrome
- Safari

Devices:

- Asus
- MacBook Pro

Network Conditions:

- 5G mobile networks
- Wi-Fi with 100 Mbps speed

Platforms Not Being Tested on:

- Mobile app testing (focus limited to web version)
- Smart TVs
- Xbox or other gaming consoles
- Linux OS browsers
- Legacy Browsers

User Testing

Who: 10-15 Testers (most of them being new users from management background)

Where: in-person usability testing

When: Over a 2.5-week period

Test Setting: Summative Testing

Usability testing for first-time users

Lab Testing - Usability Tests in a controlled Environment.

Types of Tests Used

Self-Reports: Interviews, Surveys and Think Aloud and Think After

Heuristic Evaluation

Feature Test

Self-Reports

Test Details (Interview)

Test Name: Interview

Date Conducted: 3rd -10th November, 2025

Participants: 7

Format: Verbal

Purpose:

- To know the key problems or parts where users felt hesitation or confusion (if any) while performing the tasks.
- To understand the User's perceptions about the workflow of jira.
- To capture user perceptions about visual design choices.
- To understand the user's perceptions about the clarity and usefulness of icons.
- To understand the user's perceptions about the clarity of feedback given by the system on a task.

Interview Questions:

Q1. How was your experience with Jira?

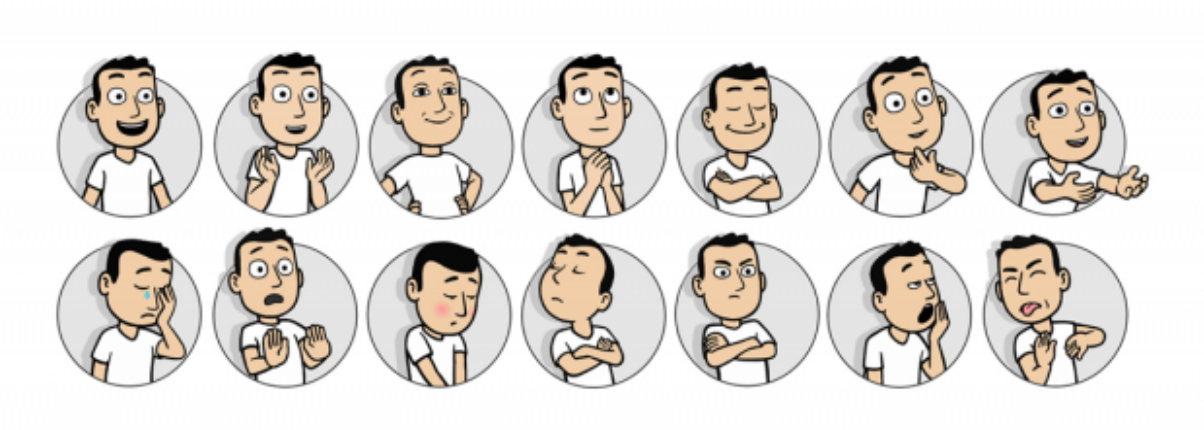
Q2. How was the workflow of jira?

Q3. Was there anytime where you felt unsure of what to do?

Q4. Would you recommend Jira to someone new who is from management background. Why or why not?

Q5. Were there any buttons or icons that were unclear or unnoticeable?

Q6. Choose an emotion that would best describe you experience with Jira?



System Usability Scale

- I think that I would like to use this system frequently.
- I found the system unnecessarily complex.
- I thought the system was easy to use.
- I think that I would need the support of a technical person to be able to use this system.
- I found the various functions in this system were well integrated.
- I thought there was too much inconsistency in this system.
- I would imagine that most people would learn to use this system very quickly.
- I found the system very cumbersome to use.
- I felt very confident using the system.
- I needed to learn a lot of things before I could get going with this system.

Link of the Document (Excel sheet table)-

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Test Details (Survey)

Test Name: Survey

Date Conducted: 10th November, 2025

Participants: 5

Format: Verbal

Survey Questions:

Q1. System Usability Scale

- I think that I would like to use this system frequently.
- I found the system unnecessarily complex.
- I thought the system was easy to use.
- I think that I would need the support of a technical person to be able to use this system.
- I found the various functions in this system were well integrated.
- I thought there was too much inconsistency in this system.
- I would imagine that most people would learn to use this system very quickly.
- I found the system very cumbersome to use.
- I felt very confident using the system.
- I needed to learn a lot of things before I could get going with this system.

Q2. Did you face any problems while performing the tasks? If yes, where?

Link of the Document (Excel sheet table)-

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Test Details (Think Aloud and Think After)

Test Name: Think Aloud and Think After

Date Conducted: 28th October, 2025-14th November,2025

Participants: 7

Format: Verbal

Purpose:

- To understand how users from management backgrounds conduct the task in Jira, and how their knowledge of concepts like Kanban, Scrum, etc influence their use.
- To assess whether the workflow of jira can be understood by users.
- To understand the user's perceptions about the clarity and usefulness of icons.
- To understand the user's perceptions about the clarity of feedback given by the system on a task.

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Test Details (Heuristic Evaluation)

Test Name: Heuristic Evaluation

Date Conducted: 8th November, 2025

Evaluator(s): Minal Surana

Framework Used: Nielsen's 10 Usability Heuristics

Purpose:

- To identify Heuristics flaws in the following Tasks.

Easy

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Set Project Background

-Click on More actions and go to "set space background" and select a photo.

Medium

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-Now go to “Timeline” and drag the three Epics timelines so that all of them start from Nov,01,2025.

Heuristics List for Reference:

Visibility of system status
Match between system and the real world
User control and freedom
Consistency and standards
Error prevention
Recognition rather than recall
Flexibility and efficiency of use
Aesthetic and minimalist design
Help users recognize, diagnose, and recover from errors
Help and documentation

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Test Details (Feature Test)

Test Name: Feature Test

Date Conducted: 12th November, 2025

Evaluator(s): Minal Surana

Link of the Document (Excel sheet table)-

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Conclusion

The study highlights Jira's robust capabilities as a project management and issue tracking tool, which offers features that align well with Agile methodologies. However, during the tests conducted, it was observed that Agile related terminologies are not yet widely popular. According to the usability self-report tests, approximately 96% of participants from management backgrounds were unaware of Agile terms, which may have influenced their overall experience with Jira.

This unfamiliarity can be because of the limited adoption of Jira across many organisations and educational institutions, where platforms like Outlook or Microsoft Teams are more commonly used for day-to-day work. As a result, participants found Jira less intuitive at first exposure. About dash% of users noted that the platform has a relatively steep learning curve, which can initially seem daunting to those new to Jira.

While its functionality is comprehensive, feedback suggests that it's workflows may require time, effort and guidance to navigate effectively. Internal consistency could be further refined to improve the experience of the first-time users. Nevertheless, users do say that they see potential in it and hope to adapt Jira to make their work easy.