

SDM COLLEGE OF ENGINEERING AND TECHNOLOGY

Dhavalagiri, Dharwad-580002, Karnataka, India

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

A Report on:

Jira- Project Management Tool

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COURSE TEACHER: **Dr.S.B.Kulkarni**



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Submitted By:

ISHA U PRABHU USN: 2SD23CS038

ISHANK KUMAR USN: 2SD23CS039

JAYALAKSHMI USN: 2SD23CS040

KARAN KUMBAR USN: 2SD23CS041

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About Zira Project Management tool:

Atlassian started Jira in 2002 as a project management and issue tracking tool for teams. The software was originally designed for software developers, but has since been adopted by many other types of companies. Jira is used by over 65,000 companies worldwide for its flexibility and ability to work with many apps and integrations

Jira was an **open source tool** available for anyone to download. Its popularity drove thousands of users to adopt it within organizations across the globe. Unlike IBM Engineering Management Platform, Jira is primarily for use in **small teams and individuals, not large projects or enterprises**. Subsequently, the product was made closed-source and Atlassian created a business around this product. According to Atlassian, Jira is used for **issue tracking and project management**. Some of the organizations that have used Jira at some point in time for **bug-tracking**.

Jira is offered in four packages:

- **Jira Work Management** is intended as generic project management.

Generic Project management is the practice of applying knowledge, skills, tools, and techniques to complete a project according to specific requirements. Proper execution of this practice comes down to identifying the problem, creating a plan to solve the problem, and then executing that plan until the problem has been solved

- **Jira Software** includes the base software, including agile project management features (previously a separate product: Jira Agile).

Agile project management is an iterative approach to managing software development projects that focuses on continuous releases and incorporating customer feedback with every iteration.

- **Jira Service Management** is intended for use by IT Operations or business service desks.

IT operations, often abbreviated as ITOps, refer to the activities and processes involved in managing and maintaining the infrastructure, applications, and services within an organization's IT environment. These operations are crucial for ensuring the smooth functioning of IT systems and supporting the overall objectives of the business.

Business service desks, often referred to simply as service desks or help desks, are centralized points of contact within an organization for users to request assistance, report issues, and seek information related to IT services, applications, and other business processes

- **Jira Align** is intended for strategic product and portfolio management.

A Strategic product is a high-level plan that defines how a product will meet key goals across its entire lifecycle. The product strategy helps stakeholders understand why you're developing the product and how you'll develop it to maximize customer delight and profitability.

Portfolio management is the selection, prioritisation and control of an organisation's programmes and projects, in line with its strategic objectives and capacity to deliver. The goal is to balance the implementation of change initiatives and the maintenance of business-as-usual, while optimising return on investment.

Installation Procedure

Step 1: Firstly, Visit the below mentioned Atlassian website.

Website: <https://www.atlassian.com>

The Atlassian website looks like the above inserted snapshot. (Fig: 1)

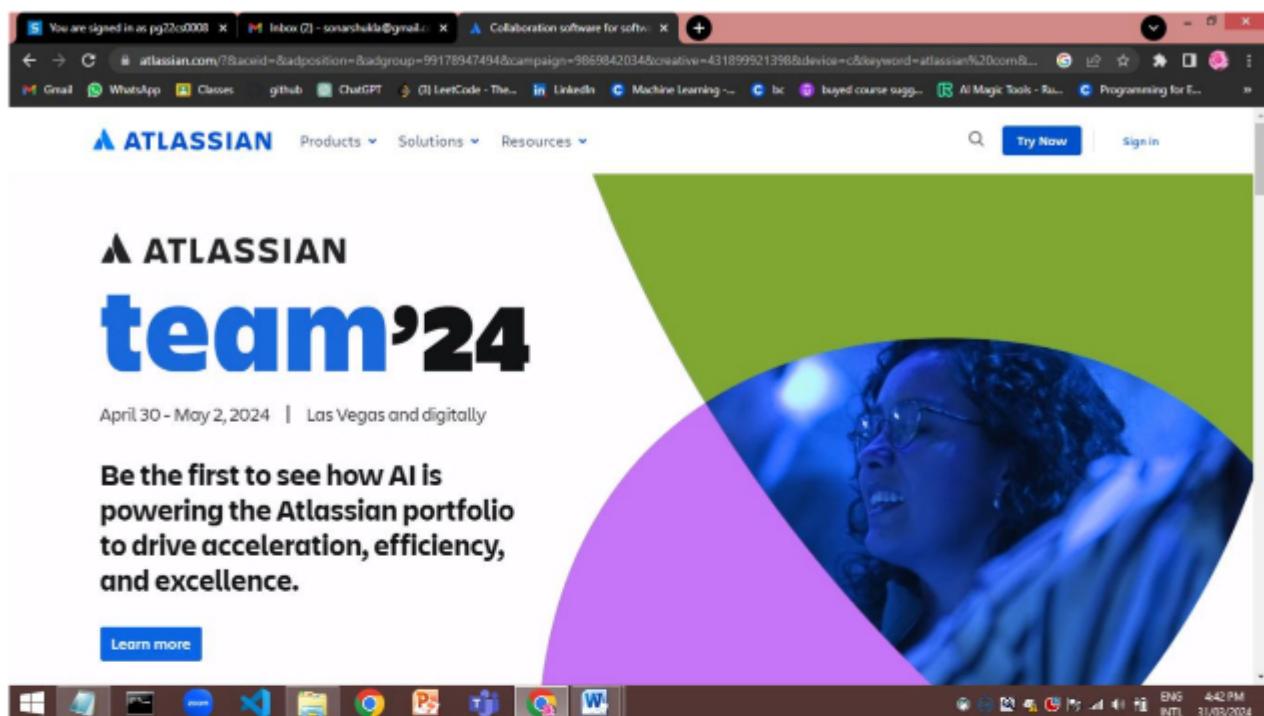


Figure 1

Step 2: Create an Atlassian account through the Mail id .

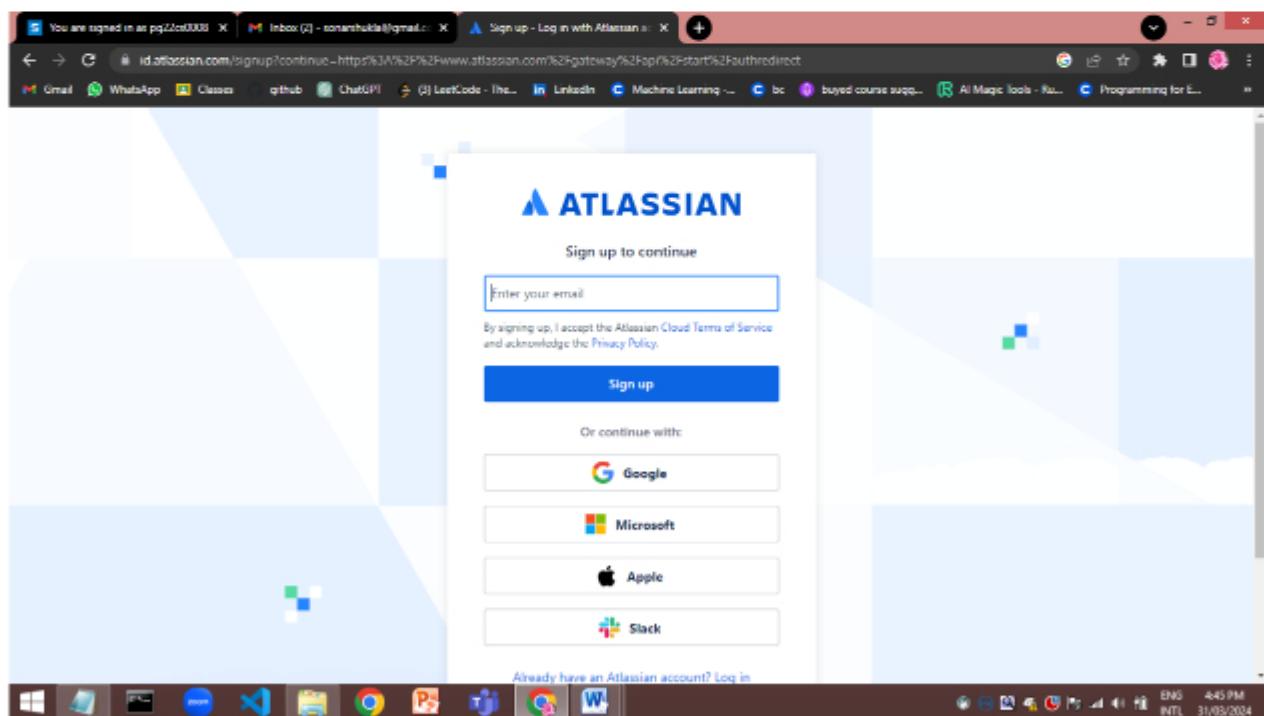


Figure 2

Step 3: After entering the mail id, we get into sign in as mentioned as in the Fig3.

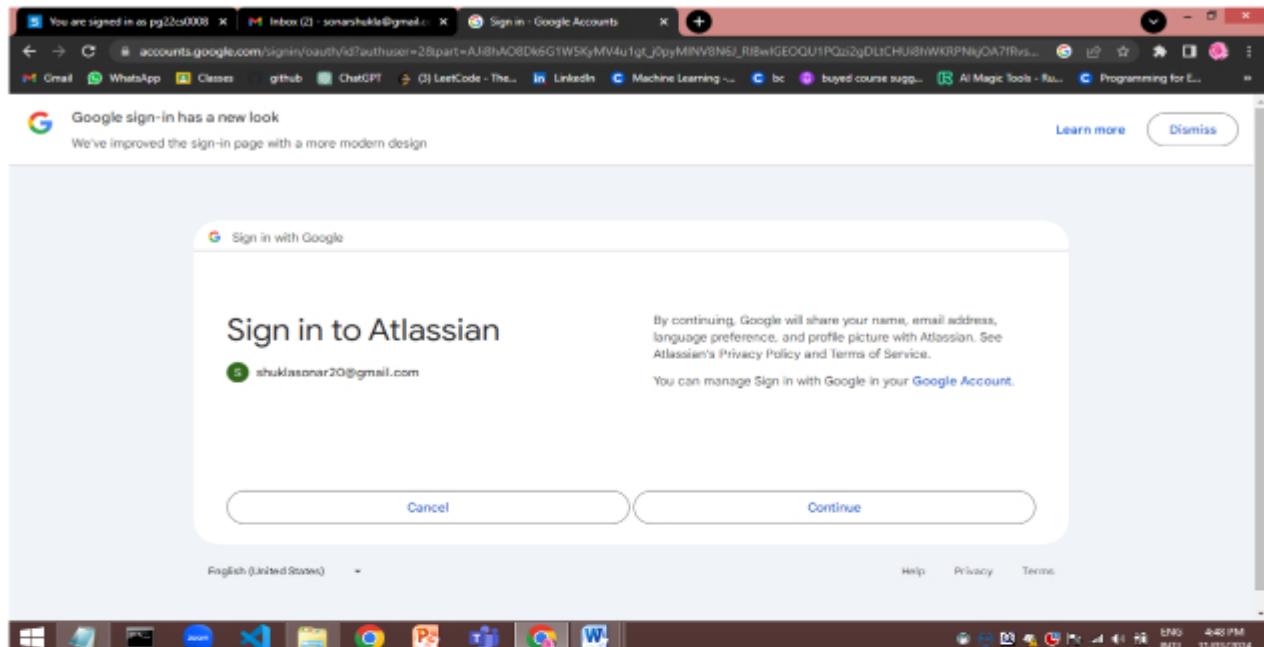


Figure 3

Step 4: Clicking on continue, we get a page of account creation for atlasian as like in the Fig 4.

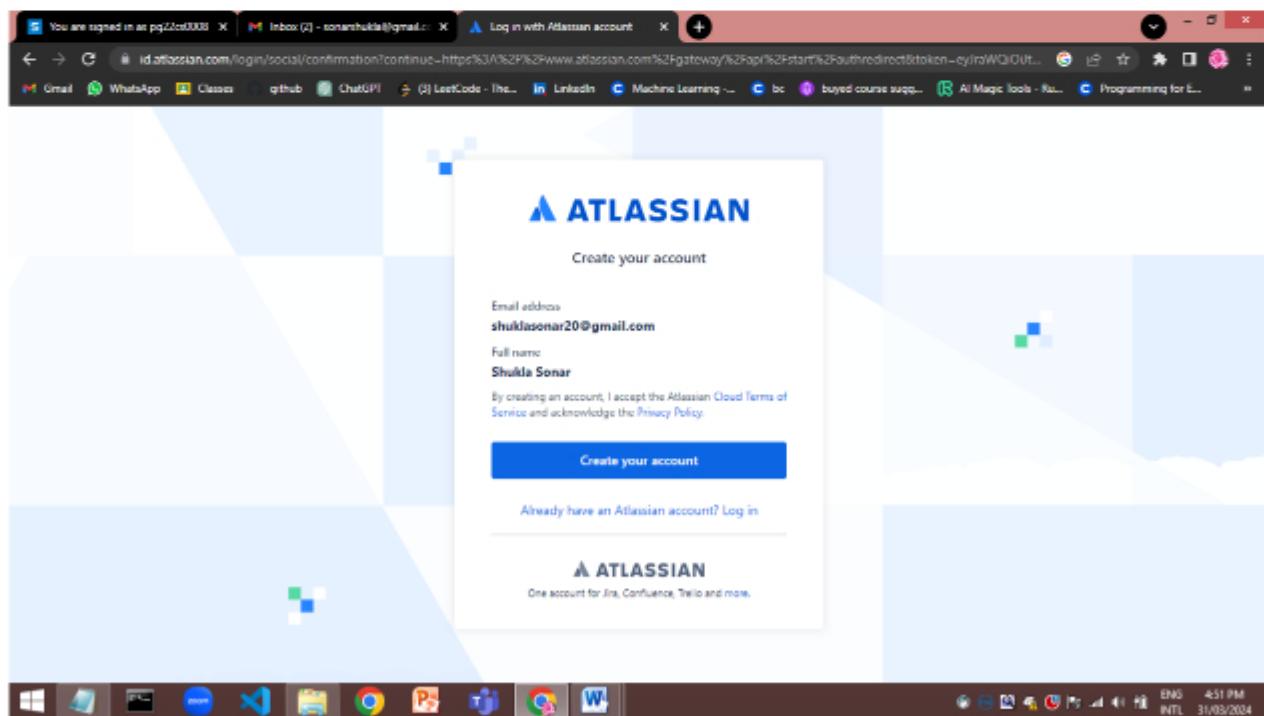


Figure 4

Step 5: After creating the account of Atlassian, We can glance a page as mentioned in the Fig 5.

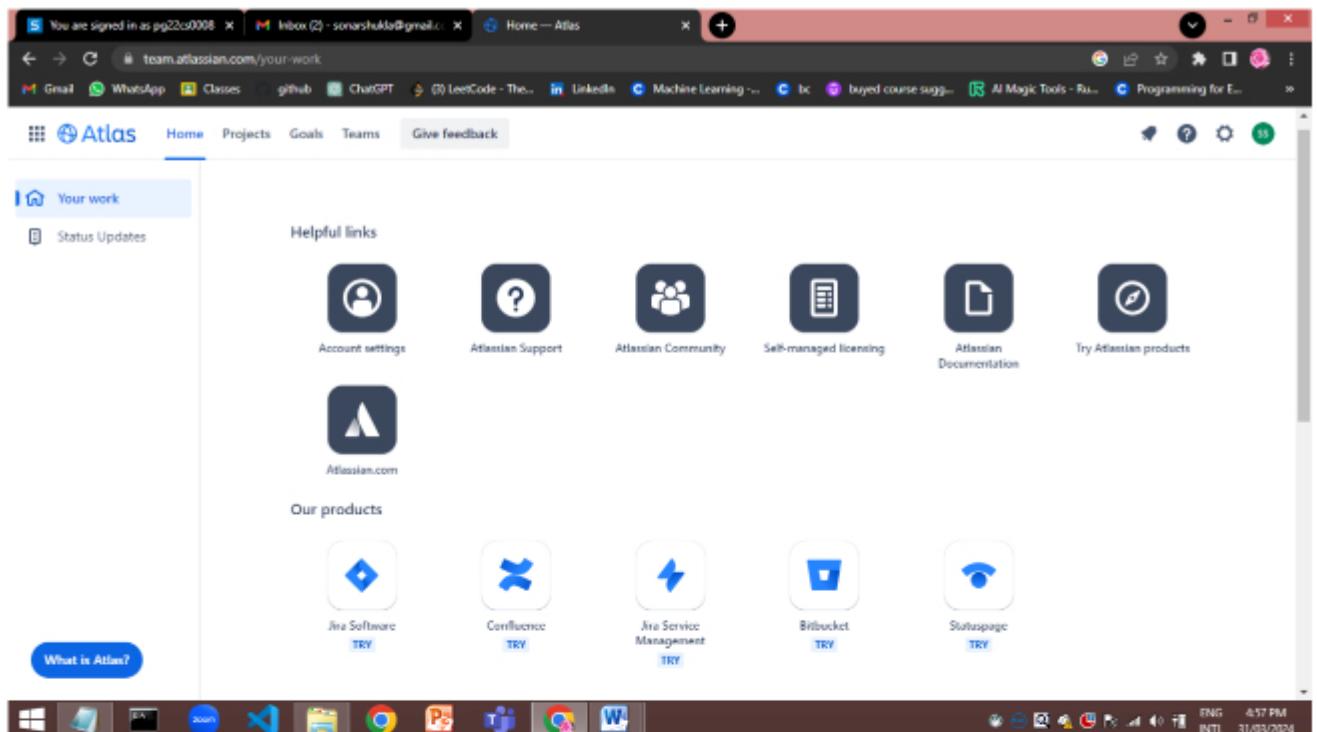


Figure 5

Step 6: Clicking on the Jira Service Management, we get a page as mentioned below. So click on the **Get it Free** Option

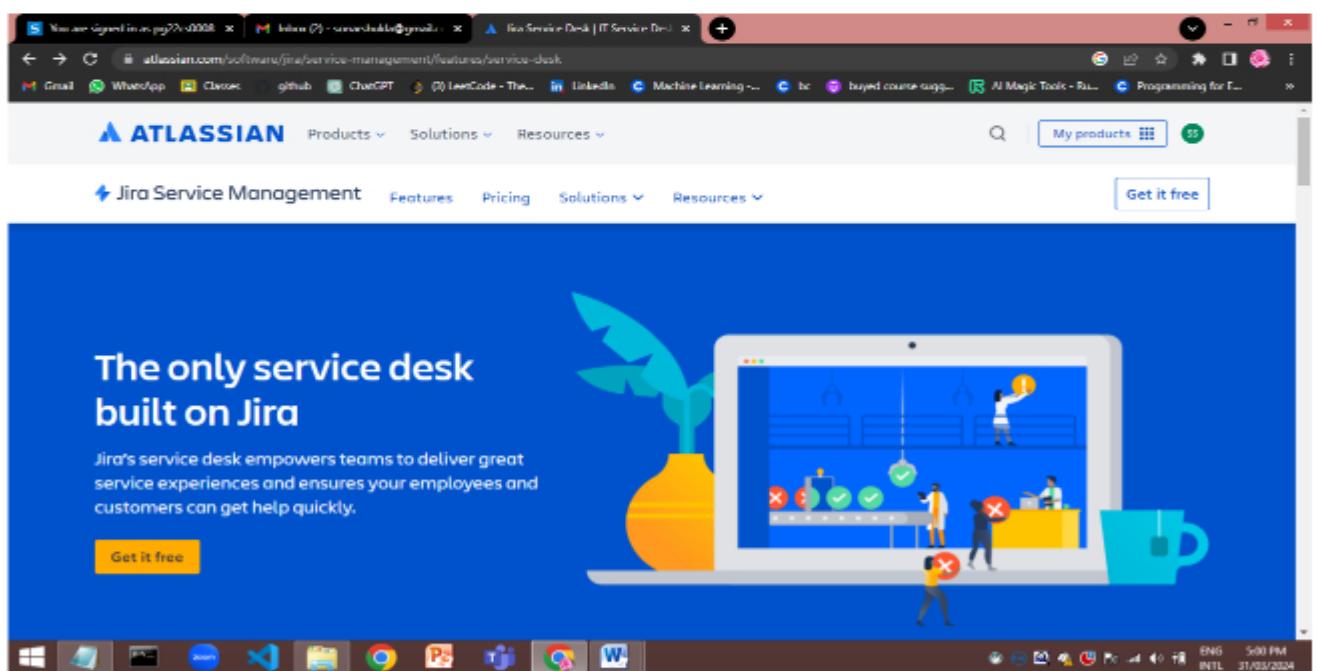


Figure 6

Step 7: Select Jira Software and Click on Next. Then we get a page as mentioned in the Fig 7.

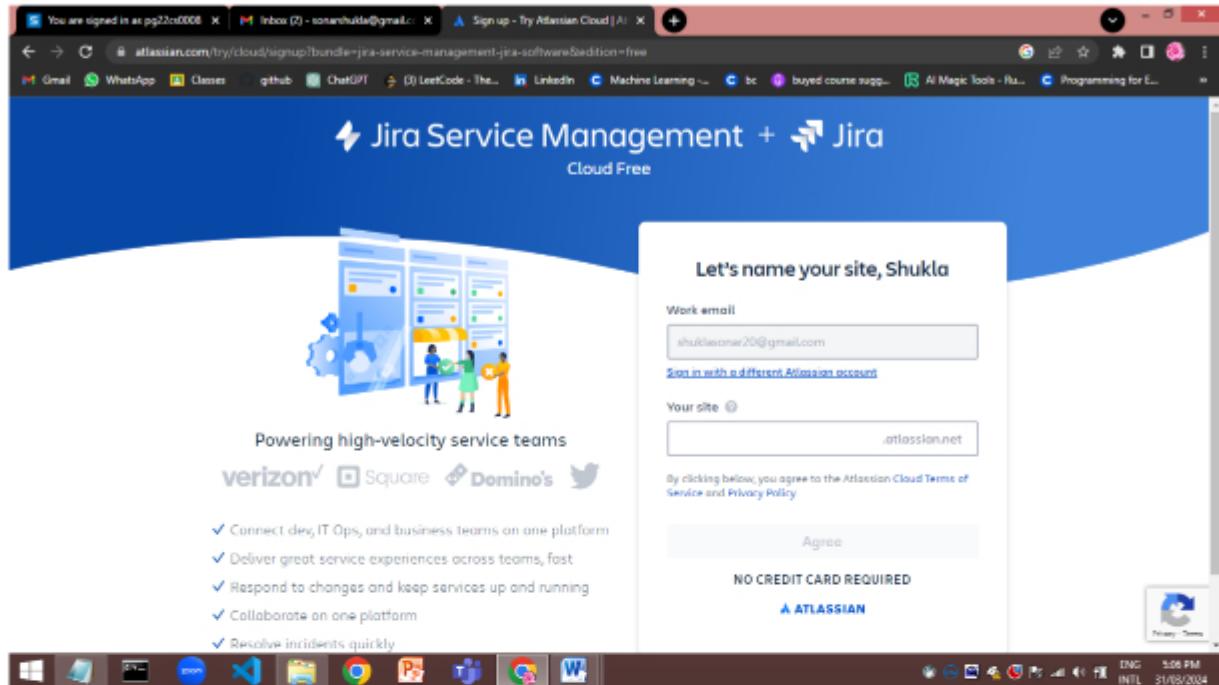


Figure 7

Here we provide the site name which is unique for the Atlassian to create the workspace.

Step 8: After getting confirmed with the Site, we receive a page which asks a bit about ourself in order to personalize the workspace as shown in the Fig 8.

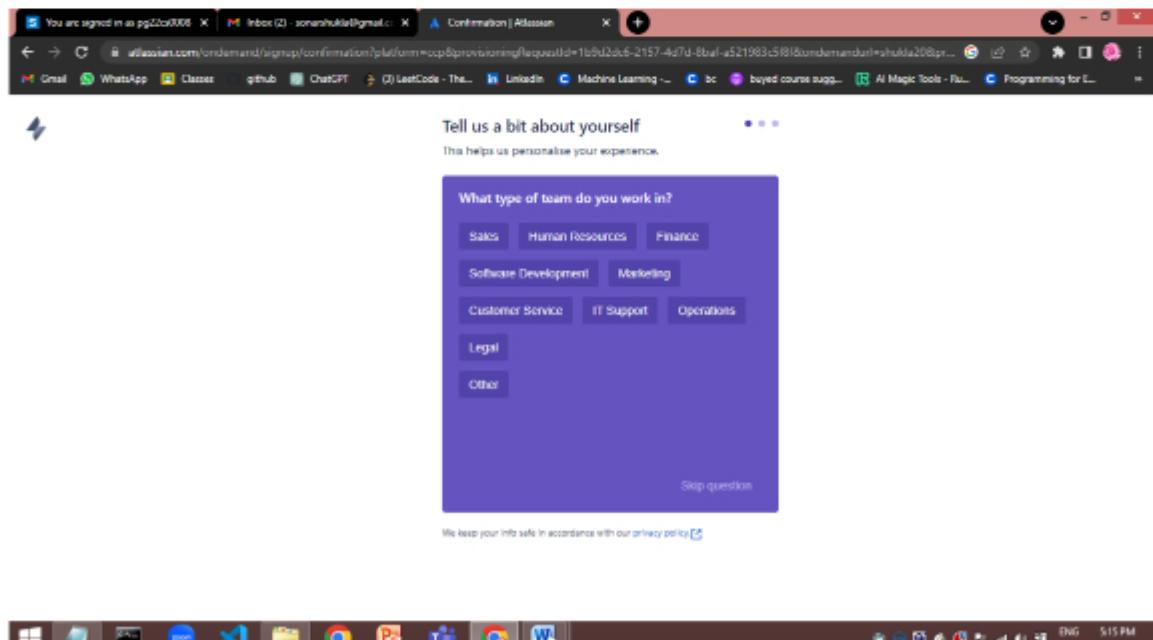


Figure 8

Step 9: Click on “Create project” to create the project.

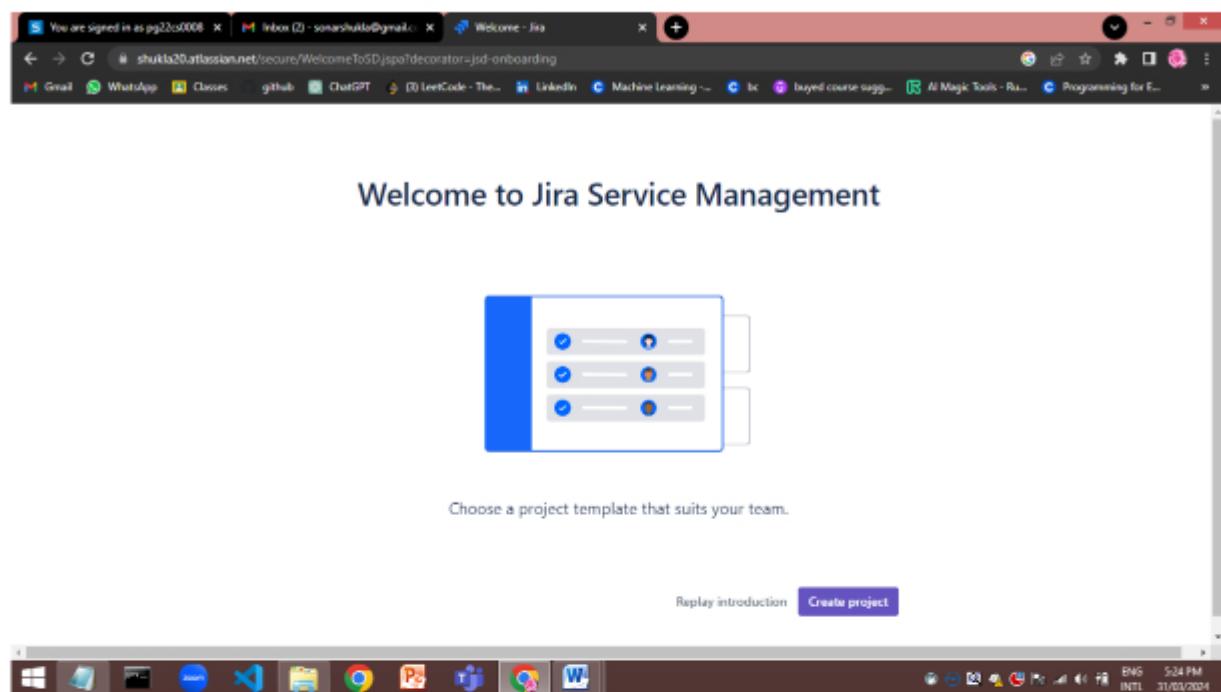


Figure 9

Step 10: Click on “Scrum”

Scrum is a framework for agile team collaboration that helps teams structure and manage their work. It's often used in software development and other industries. Scrum is based on empiricism and lean thinking, which means that knowledge comes from experience and decisions are made based on what is observed. Lean thinking also focuses on reducing waste and focusing on essentials.

The five Scrum values are

- Commitment
- Focus
- Openness
- Respect
- Courage.

In Scrum methodology, these values serve as a guide for individual and team behavior, intending to boost collaboration and increase the odds of project success.

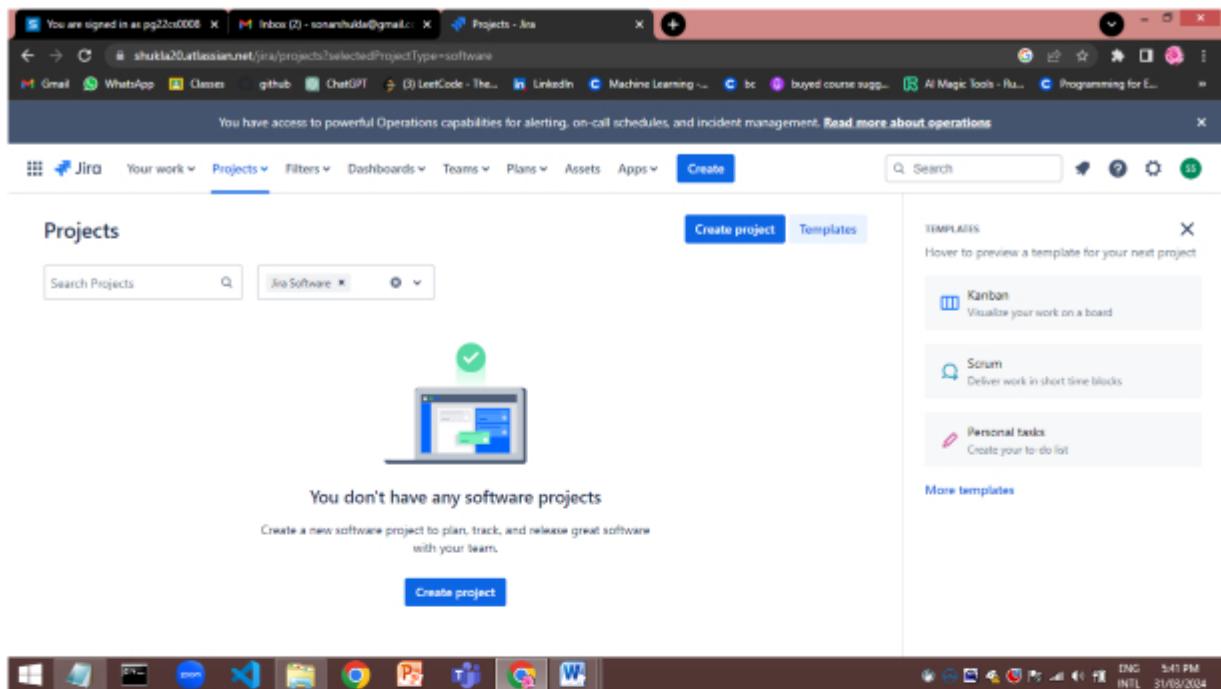


Figure 10

Step 11: Click on Team Managed project Since its available for free. Put the name of the project and then Jira assigns a Key which can be referred to that particular named Project.

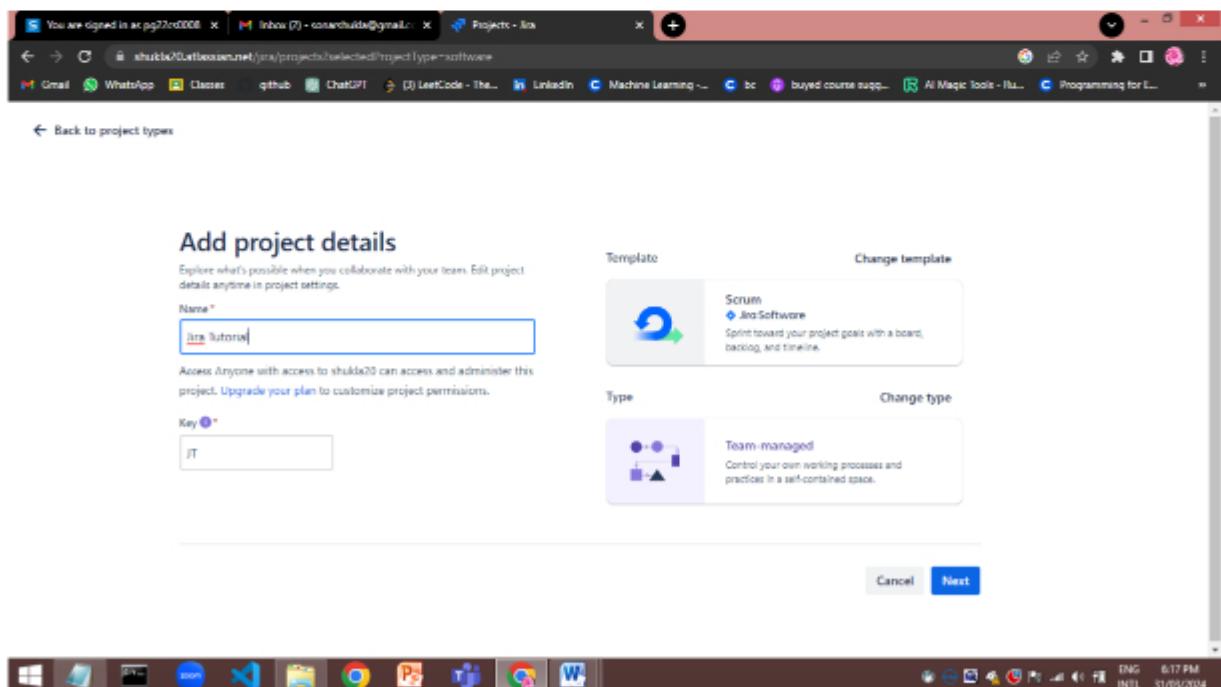


Figure 11

Step 12: The home page of created project looks as shown in the fig 12

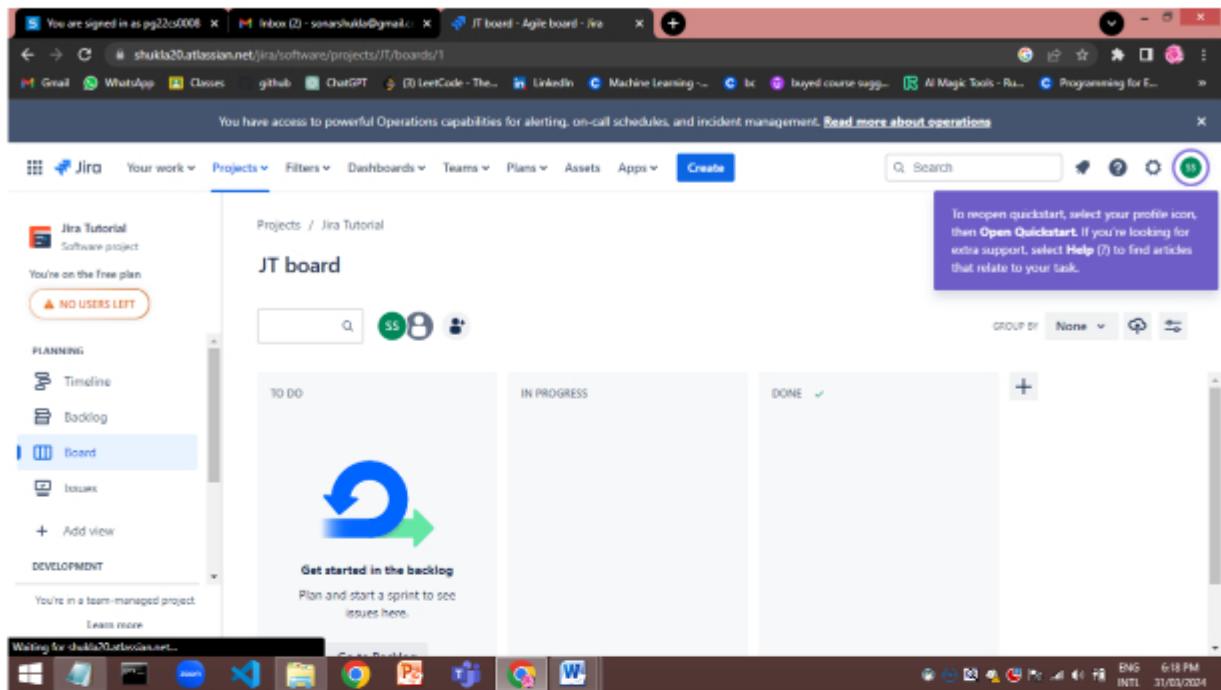


Figure 12

In Jira, the status of an issue indicates where it is in the workflow. The three main statuses are "To Do," "In Progress," and "Done."

- **To Do:** indicates that the issue has been created but work has not yet begun.
 - **In Progress:** indicates that work has begun on the issue but it is not yet complete.
 - **Done:** indicates that the issue is complete and no further work is required.
- The status of an issue can be changed manually or automatically as the issue progresses through the workflow.

The backlog is a list of all issues that have not yet been started. When an issue is created, it is automatically added to the backlog. Issues can be moved from the backlog to the "To Do" column when work is ready to begin

Kanban in Jira – Introduction and Workflow

What is Kanban?

Kanban is a visual workflow management method that emphasizes continuous delivery and flow.

Kanban Workflow in Jira:

1. Define workflow columns (e.g., To Do → In Progress → Review → Done)
2. Create issues (tasks)
3. Drag issues between columns

Benefits of Kanban:

- Focuses on cycle time and flow
- Easy to visualize bottlenecks
- Flexible and efficient

Kanban in Jira – Managing Flow and Efficiency:

- **WIP (Work In Progress) Limits:**

- * Set limits on how many tasks can be in each column

- **Swim lanes and Filters:**

- * Customize the view using assignees, priority, labels

- **Reports and Charts:**

- * Control charts for visualizing cycle time

- * Cumulative flow diagrams for monitoring bottlenecks

Features:

1. Continuous Workflow – Work flows without fixed sprints.
2. Visual Task Board – Drag-and-drop tasks across columns.
3. WIP Limits – Restrict tasks per stage to avoid overload.
4. Custom Workflows – Define stages like Design, Review, Done.
5. Cycle Time Reports – Measure how long tasks take to complete.
6. Cumulative Flow Diagrams – Visualize task progress over time.
7. Quick Filters – Instantly filter tasks by status, user, or label.
8. Swim lanes – Organize tasks by priority, assignee, or type.
9. Real-Time Updates – Boards update instantly for all users.
10. Integration Support – Connect with tools like GitHub and Slack.

The screenshot shows a Jira Kanban board titled "WHATP board". The board has four columns: BACKLOG, SELECTED FOR DEVELOPMENT, IN PROGRESS, and DONE. Each column contains several work items represented by cards. The "IN PROGRESS" column has four items, and the "DONE" column has three items. The sidebar on the left shows recent projects, including "WHATP board" which is currently selected. Other visible projects include "Student Task Tracker", "Whatsup", "ToDoList", and "(Learn) Jira Premium b...". The top navigation bar includes links for Summary, Timeline, Kanban board, Calendar, List, Reports, Forms, Goals, All work, Components, Code, and more.

Features Of Jira and its Working Board:

A board accompanies each Jira project by default and provides the team with a shared view of all work that hasn't started, work that is in progress, and work that is completed.

Backlog:

Backlog is usually a list of issues describing what A team is going to do on a project. It's a convenient place for creating, storing, and managing several kinds of issues

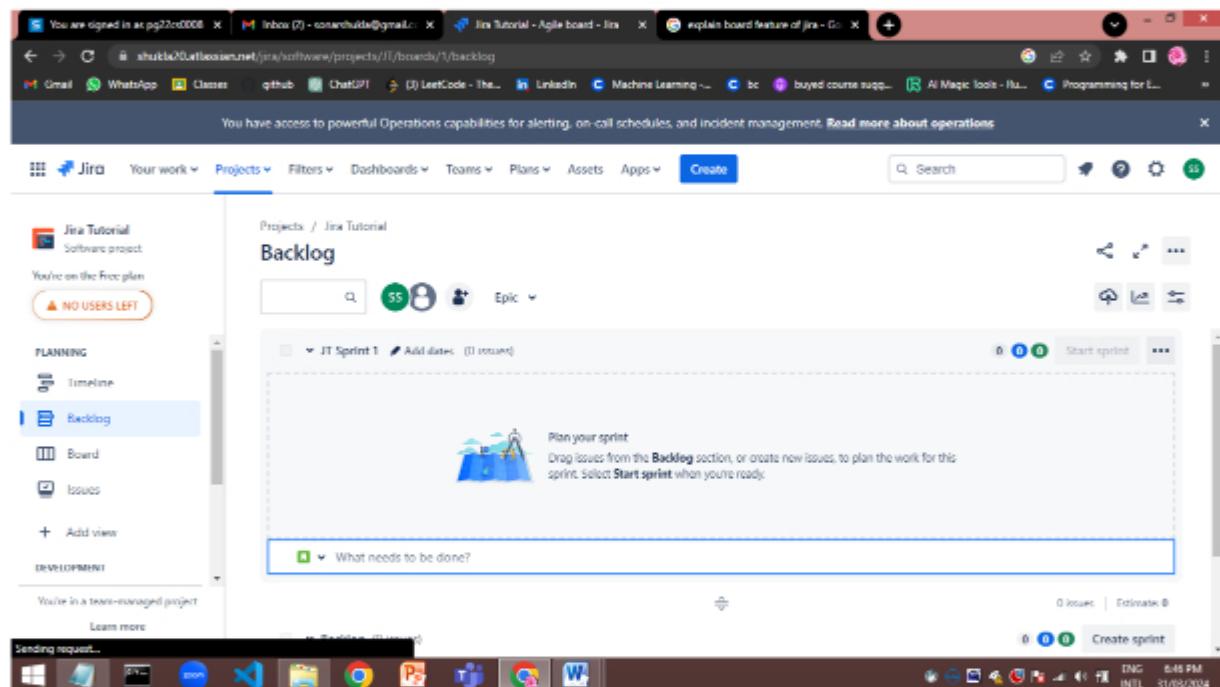


Figure 13

Issues:

In Jira, issues are used to track individual pieces of work that need to be completed, such as project tasks, helpdesk tickets, or leave request forms. Issue types in Jira include story, task, bug, subtask, and epic. The standard issue types estimate and track the effort required to build a piece of software. The New Feature issue type is used to track the development of new functionality or features that are being added to a software system or application.

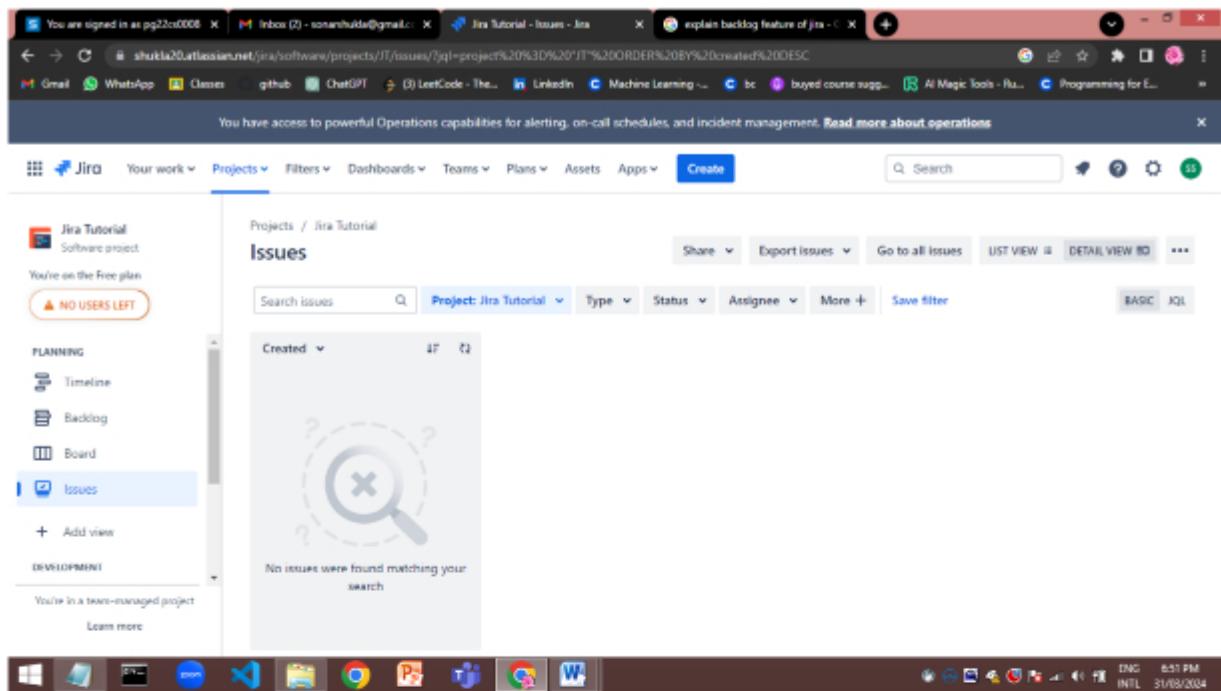


Figure 14

How to create a Sprint?

Go to Backlog>On epic>Create stories and Bugs>start sprint>Add duration>Add start and end date>Add Sprint Goal>Start

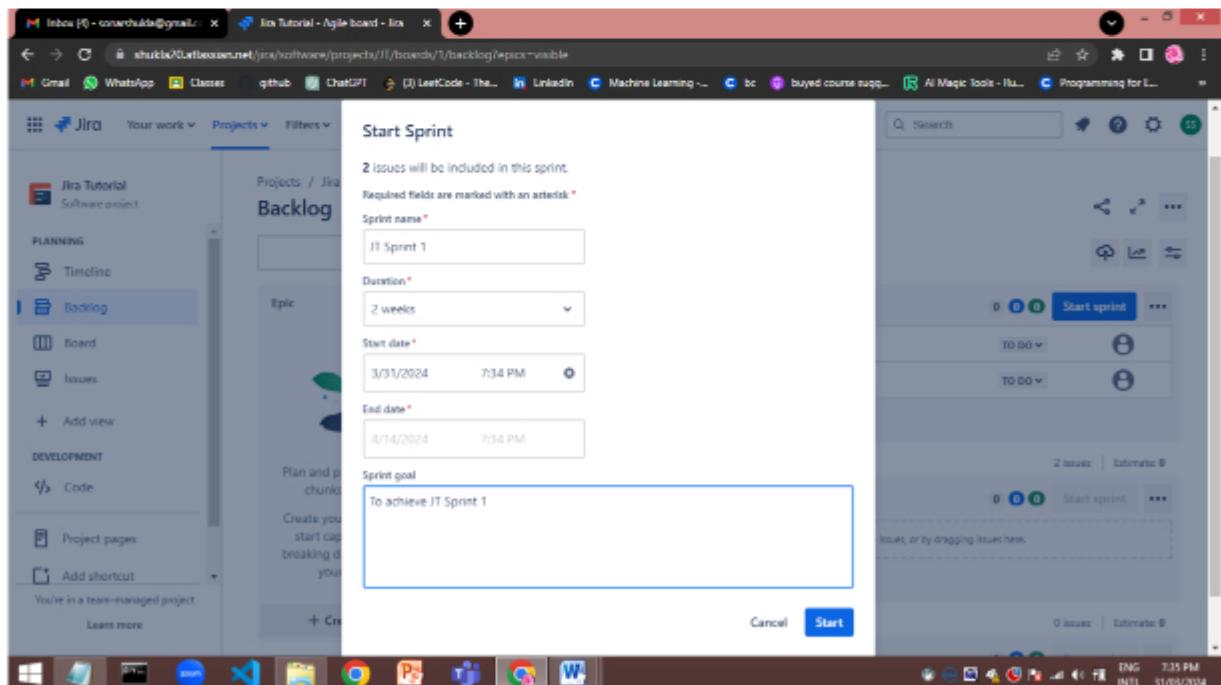


Figure 15

Then we get the above mentioned page as fig 16

The screenshot shows a Jira Agile board interface. On the left, a sidebar menu includes 'Jira Tutorial' (Software project), 'PLANNING' (Timeline, Backlog), 'Board' (selected), 'Issues', 'Add view', 'DEVELOPMENT' (Code), 'Project pages', and 'Add shortcut'. The main area displays a 'JT Sprint 1' board with three columns: 'TO DO' (containing tasks S_1 and B_1), 'IN PROGRESS' (containing task JT-5), and 'DONE' (empty). A search bar at the top right contains 'ss'. Below the board, a status bar shows 'ENGLISH 7:38 PM 31/03/2024'.

Figure 16

We can add the details as like assignee as mentioned in the below fig 17

This screenshot is similar to Figure 16, showing the Jira Agile board for 'JT Sprint 1'. However, a context menu is open over the 'JT-5' task in the 'IN PROGRESS' column. The menu options include 'Add parent', 'Details', 'Assignee', 'Labels', 'Parent', 'None', 'Split', 'JT Sprint 1', 'Add a comment...', and a note 'Pro tips press ⌘ to comment'. The 'Assignee' option is highlighted, showing 'Shukla Sonar' as the selected user.

Figure 17

We can move the tasks as per the required section as like TO DO or IN PROGRESS or DONE as shown in fig 18

The screenshot shows a Jira Agile board for the project 'Jira Tutorial'. The board has three columns: 'TO DO', 'IN PROGRESS 1', and 'DONE 1'. In the 'TO DO' column, there is one task labeled 'B_1' with a red progress bar. In the 'IN PROGRESS 1' column, there is one task labeled 'B_1' with a green progress bar. In the 'DONE 1' column, there is one task labeled 'S_1' with a green checkmark icon. The left sidebar shows navigation options like 'Board', 'Issues', and 'Code'. The top navigation bar includes links for 'Gmail', 'WhatsApp', 'Classes', 'github', 'ChatGPT', 'LeetCode - The...', 'LinkedIn', 'Machine Learning...', 'bc', 'buyed course sugg...', 'AI Magic Tools - Ru...', and 'Programming for E...'. The bottom taskbar shows various application icons.

Figure 18

To add people, we need to go with Project settings>Access>Add People. Only Administrator can add the people in a group and to add people in group we need to upgrade the Jira by Payment Method.

The screenshot shows the 'Access' tab in the Jira Project settings for the 'Jira Tutorial' project. It displays a message about operations capabilities and a link to learn more. Below this, there is a search bar and a table listing users. The table has columns for 'Name', 'Email', 'Role', and 'Action'. There are two entries: one for 'p2' with an empty email and role set to 'Administrator', and another for 'Shukla Sonar' with the email 'shukla20@gmail.com' and role set to 'Administrator'. The left sidebar shows 'Details', 'Access' (which is selected), 'Notifications', 'Automation', and 'Issue types'. The bottom taskbar shows various application icons.

Figure 19

In Jira, a sprint is a fixed time period during which a team completes work from their product backlog. Sprints are also known as iterations. They are a core part of agile scrum methodology and help set the pace for the team's workload.

Sprints are short, regular cycles of development and the continuous delivery of working products and features. At the end of a sprint, a team will typically have built and implemented a working product increment

Completing the sprint looks as like mentioned in the below fig 20

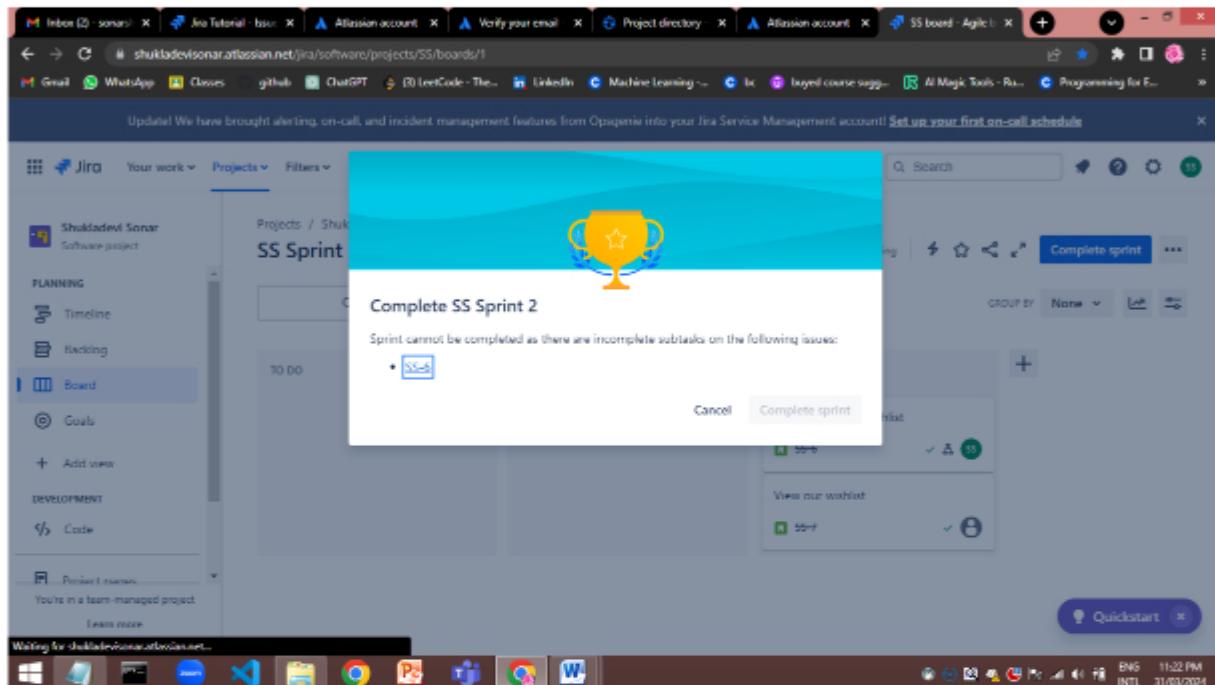


Figure 20

We can check the workflow for the above mentioned picture as shown below in fig 21

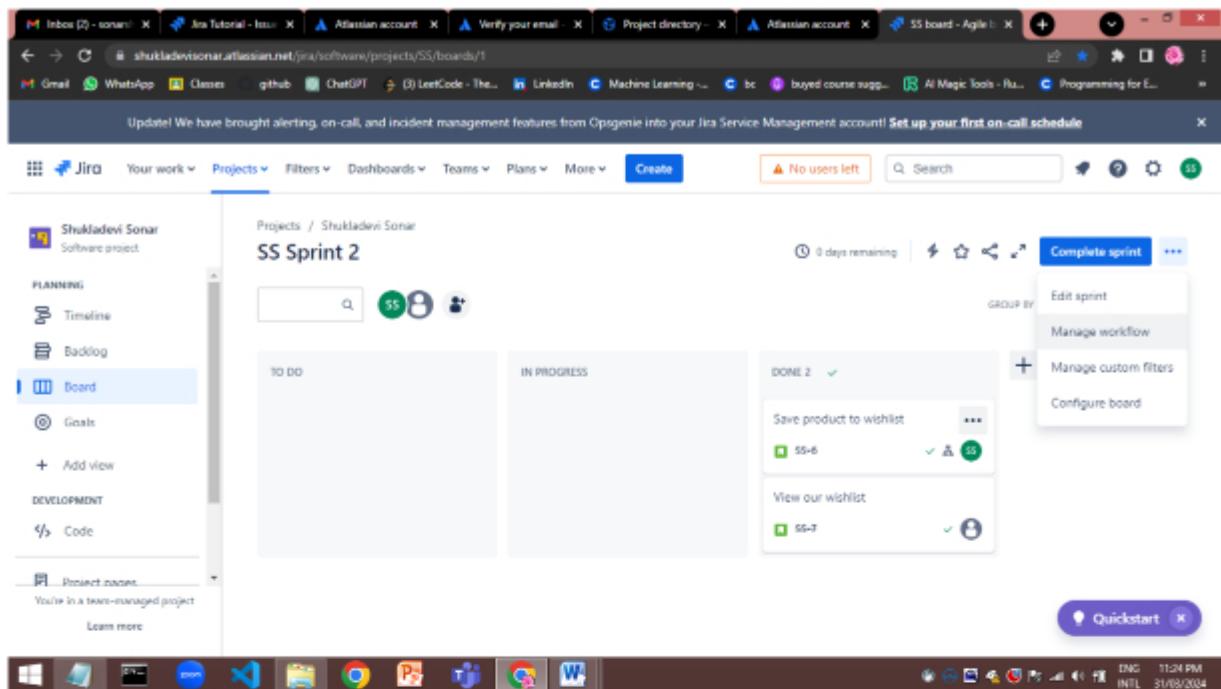


Figure 21

The workflow is shown in fig 22

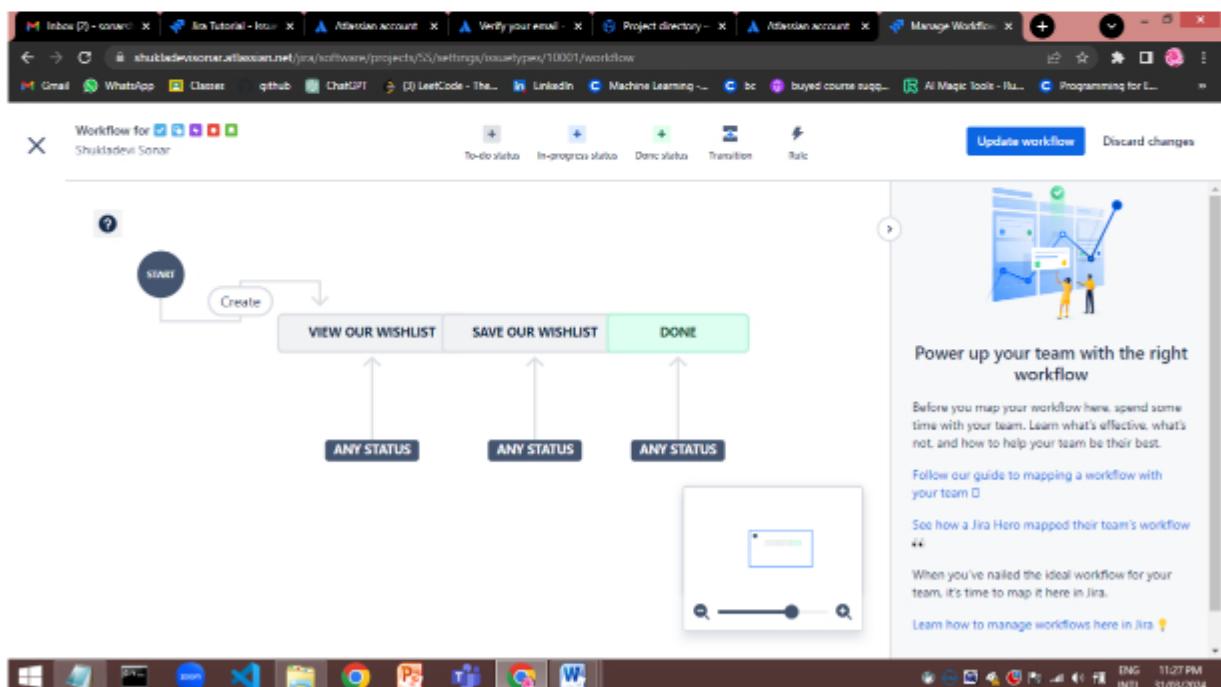


Figure 22

Integrating Jira with GitHub

Why Integrate with GitHub?

- Link commits, branches, and pull requests to Jira issues.
- Gain development insights within Jira.

Integration Steps:

1. Go to Jira Settings > Apps > Find new apps
2. Search and install GitHub for Jira
3. Connect your GitHub account and repositories
4. Link commits using Jira issue keys (e.g., PROJ-101 in commit message)

The screenshot shows a Jira issue page for 'EX-3'. At the top, there are buttons for 'Add epic' and 'EX-3'. On the right, there are icons for lock, status (0), due date (1), and more. Below the title, there's a 'To Do' button. A 'Pinned fields' panel is open, containing a note to pin fields by clicking the 'x' next to them. The main panel shows the issue details: 'Description' (Add a description...), 'Time Stamp' (None), 'Git Development' (Create branch, Create pull request), 'Activity' (Comments tab selected, showing 1 comment from 'AT'), and 'Details' (Time tracking: No time logged, Assignee: Unassigned, Labels: None, Development: 1 branch, 2 commits, 1 pull request (highlighted with a red box), Reporter: Atlassian Test, Git Integration: Open Git Integration). The bottom of the page shows creation and update dates (4 days ago).

Benefits of Using Jira Software

Increased Productivity: Jira Software helps teams work more efficiently by providing a centralized platform for project management, communication, and collaboration.

Improved Visibility: With customizable dashboards, reports, and agile boards, teams gain visibility into project progress, priorities, and dependencies, enabling better decision-making and resource allocation.

Enhanced Communication: Jira Software fosters transparent communication and alignment across distributed teams by providing tools for discussion, feedback, and status updates within the context of project work.

Scalability and Flexibility: Whether you're a small startup or a large enterprise, Jira Software scales to meet the needs of teams of all sizes and adapts to evolving project requirements with its customizable workflows and integrations.

Conclusion:

- **Summary of Benefits:**

- ❖ Jira enhances project visibility, accountability, and agile practices.
- ❖ Scrum helps in sprint planning and iterative development.
- ❖ Kanban supports continuous flow and process optimization.
- ❖ Epics and team management foster collaboration.
- ❖ GitHub integration brings DevOps and project tracking together.

By enabling clear task ownership, real-time collaboration, and data-driven decision-making, Jira enhances productivity and ensures transparency across all stages of a project. Whether you're managing sprints, tracking bugs, or planning long-term initiatives with epics and roadmaps, Jira adapts to your workflow and scales with your team's growth.

For teams committed to delivering high-quality results through agile practices, mastering Jira is a valuable investment in efficiency, clarity, and continuous improvement.

Jira is a powerful tool for modern teams. Mastering it opens doors to efficient project execution and agile delivery. Whether you're working solo or leading a team, Jira adapts to your workflow needs.

Bibliography:

1. <https://www.atlassian.com/software/jira/download/data-center>
2. https://team.atlassian.com/your-work?utm_source=identity
3. <https://jeerasoda.atlassian.net/jira/software/projects/HOS/boards/35>