

PRACTICAL: - 2

AIM:

List at least 10 Agile Development tools for desktop and mobile application development in IT industry and prepare the detailed case study on “JIRA Tool” for Agile Development (Insta app).

What is Agile Methodology?

Agile Methodology meaning a practice that promotes continuous iteration of development and testing throughout the software development lifecycle of the project. In the Agile model in software testing, both development and testing activities are concurrent, unlike the Waterfall model.

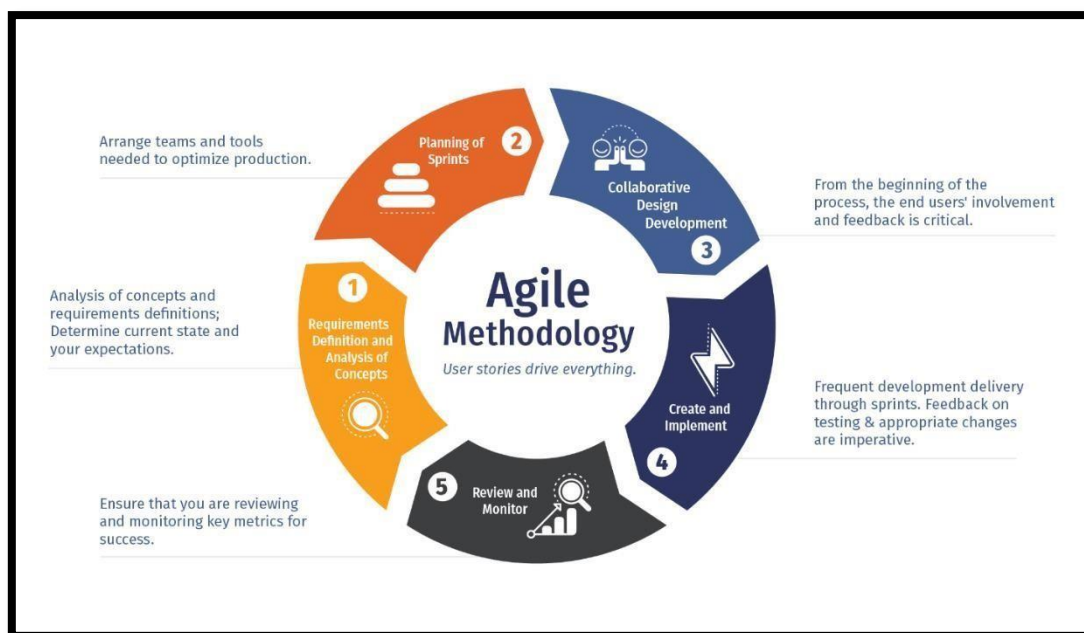


Fig-2.1 Agile Methodology [1]

Agile Development Tools:

Table 2.1: List of Agile Development Tools

Sr. No.	Name of Tools	Sr. No.	Name of Tools
1.	Clickup	6.	Asana
2.	Wrike	7.	Target process
3.	Monday	8.	Pivotal Tracker
4.	Kissflow	9.	Vivifyscrum
5.	Zoho Sprints	10.	Jira

1. Clickup:

The ClickUp platform allows users to utilize more than 100 features which include: to-do lists, assign comments, resolve comments, have recurring tasks, sync with Google Calendar, sorting, customize assignees, collaboration detection, image mockups, assign multiple people to tasks



Fig-2.2 Clickup [2]

The advantages of the Clickup are as below: -

- Suitable for teams and solo users. Most project management software is suitable to just team users. Clickup has an edge over them because it is also easy to use for solo users. It has a suite of features that are perfect for managing daily activities. The 2.0 version is especially impressive because of its improved user interface. Also, the integrations help save a lot of time.
- Efficient dashboard view. As already mentioned above, Clickup has an improved user interface. Along with that, its dashboard view from Task List and Calendar to Board or Kanban view is impressive. Not all software has this feature but Clickup makes it very easy to shift views.
- Powerful even the free version. Free versions are expected to be less powerful and sometimes even lack features. Fortunately, this is not true with Clickup because it still supports many features that are otherwise only found in paid versions of other software. For example, it has email notifications, Android/iOS app, task dependencies, file attachments for tasks, and more.

The disadvantages of the Clickup are as below: -

- Too many features. Some users feel overwhelmed by the variety of features, especially during the initial set-up. Certain teams report that the learning curve is a bit high and their members find it hard to use all the features.
- Too much option for customization. One of the greatest advantages of Clickup is its option for full customization. This is also a con because users need to customize a lot of things in order to make the software run optimally. Certain teams suggest that the simple set of choosing between 'done' or 'not done' will be enough.
- Ineffective calendar. The calendar, for some teams, is the least impressive part of Clickup. It is not as intuitive as users expect it to be, especially that there are numerous buttons to click. Also, users have to click 'done' after inputting the date or they will have to do it again.

2. Wrike:

The Wrike project management software is a Software-as-a-Service (SaaS) product that enables its users to manage and track projects, deadlines, schedules, and other workflow processes. It also allows users to collaborate with one another.



Fig-2.3 Wrike [3]

The advantages of the Wrike are as below: -

- Wrike provides a free version for up to five users. The free version is limited in functionality compared to paid versions. Even with the limitations mentioned above the free version is good enough for small teams with simple projects.
- **Good Customer Service:** Unlike Monday and Asana, Wrike has a good customer service program. The service center does its best to answer customer questions in a short time.. Overall Wrike provides good customer service compared to most other SaaS providers in the market.
- **Dashboard:** Wrike has a good dashboard that shows the progress of the projects and tasks during the project's life cycle. The dashboard is designed with the project manager in mind. It displays the information the manager needs to check the progress of the project in time.
- **Integration with other apps:** Wrike has quite a few integrations with third-party apps like Google Drive, Gmail, Dropbox, Box, OneDrive, MS Project, Office 365, Excel, and Salesforce. Not all the applications mentioned above, are available in free and business plans.
- **Good Search Engine:** The application includes a robust search engine. This is especially useful since navigating in the application is hard and not straightforward

The disadvantages of the Wrike are as below: -

- Adding new users and assigning them to projects is difficult in Wrike. The project manager needs to add new users manually and this could be very time consuming for large teams.
- **Lack of filtering options:** The application lacks advanced filtering functions in the dashboard to enable the user to decide what information to display on the Dashboard. The lack of filtering options was the second most reported issue by Wrike users.
- **Speed:** Wrike project management is slow to load and even slower to upload or download files. Since the application is big, the number of elements that need to be loaded before the application can run is huge.
- **Confusing UI:** The Wrike's UI is at times very confusing and navigating from project to project or from task to task could be quite cumbersome

3. Monday:

Monday.com is one of the best agile project management tools available in the market. It offers a clean interface with color-coded features. This easy-to-use software is suitable for big or small teams. It also offers a user-friendly mobile app and highly customizable workflows.



Fig-2.4 monday.com [4]

The advantages of the monday.com are as below: -

- Great tracking features. Whether for tracking the progress of tasks or the status of issues, Monday performs them very well. The visual boards and overall user interface provides information at a glance. The colour-coding also alerts users to know where to give their immediate attention.
- Alternative views. Although the software does not have a Gantt chart, it does provide a timeline view that many users find more appropriate for their requirements. It still provides them the information to track progress and be aware of upcoming deadlines. Other views include a kanban board and a calendar view.
- Powerful communication tool. Teams can easily invite guests to view boards and timelines, whether they are part of the company or external partners. This feature helps centralize communication and keeps information from falling into cracks.

The disadvantages of the monday.com are as below: -

- Difficult to track time and expenses. Some users find it challenging to track time against each task and the cost for all the related tasks for a particular client. Also, it does not have a Gantt chart nor does it plans to have one.
- Too much going on. A few users find the user interface a bit cluttered, disorganized, or confusing. Also, some visualizations can be improved, like its kanban board. Users need to spend more time to get familiar with the terms and functions, so they can navigate the platform better.
- Limited mobile app. Some complain that the mobile app, particularly the iPhone native app, does not update well. The dashboards do not have an equivalent view on the mobile app, and users are unanimous that the mobile app needs to be a lot better.
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4. Kissflow:

Kissflow is an easy-to-use agile project management tool with features like visual process design and social collaboration. It allows users to prioritize work and easily delegate work to team members. You will get instant notifications when an item is complete or requires action. It also helps you handle complex decision branches and make instant changes as required.



Fig- 2.5 Kissflow [5]

The advantages of the Kissflow are as below: -

- Easily connected with G-suite, and users can use its open API to integrate with any other tool.
- Offers community feedback voting for roadmap features.
- Offers advanced reporting features like KPI dashboards and ad-hoc reports configuration.

The disadvantages of the Kissflow are as below: -

- Does not offer Drag-and-drop Builder.
- Not have proper comment systems.
- Its task management system lacks proper prioritization for tasks.

5. Zoho Sprints:

Zoho Office Suite is an Indian web-based online office suite containing word processing, spreadsheets, presentations, databases, note-taking, wikis, web conferencing, customer relationship management (CRM), project management, invoicing and other applications



Fig- 2.6 Zoho Sprints[6]

The advantages of the Zoho Sprints are as below: -

- Provide an ability to add custom aspects.
- It helps you to maintain interactions between team member.
- Increased transparency and productivity.

The disadvantages of the Zoho Sprints are as below: -

- Does not offer resource management or portfolio management.
- Not have enough integrations.
- It offers a lot of features but the depth of their functionality proves limited as your demands increase

6. Asana:

Asana is a scrum management tool that helps assign tasks, automate processes, and collaborate easily. It offers multiple custom templates, integrations, milestone tracking, task dependencies, etc., to enable you to streamline your projects. You can view the projects however you want.



Fig- 2.7 Asana [7]

The advantages of the Asana are as below: -

- Simple to use and set up, and it can be customized as per your needs
- Collaboration Focused
- Offers expansive Integration

The disadvantages of the Asana are as below: -

- The notetaking and chat features are not up to mark.
- No Time Tracking Features
- Assignments Are Limited

7. Target process:

Targetprocess is a Scrum team management tailored solutions for product owners, release train engineers, project managers, and agile coaches. The target process makes sprint retrospectives simple with built-in tools to check team happiness, organize feedback, and allows you to record a high-level summary of a project.



Fig- 2.8 Target process [8]

The advantages of the Target process are as below: -

- Responsive customer support team
- Offers robust graphical and custom reports to pinpoint trends
- You can select between unique or standard views per user

The disadvantages of the Target process are as below: -

- You cannot reuse the steps
- It does not include iteration tracking
- Weak testing features (issues, test plans, etc.).

8. Pivotal tracker:

A pivotal Tracker is a planning tool that offers collaboration and dynamic tools to analyze progress. Your team will deliver more frequently and consistently. It helps your team better to develop and keep track of them. This scrum software and task management solution caters to businesses of all sizes.



Fig- 2.9 Pivotal tracker [9]

The advantages of the Pivotal tracker are as below: -

- Enables real-time collaboration so that you can see and react to all scrum project changes
- You can access pivotal track from Google universal navigation
- Enables you to share Google Docs and other files with all other Project Members

The disadvantages of the Pivotal tracker are as below: -

- Limited reporting capability
- This software comes with a moderate learning curve for users with no background in programming.
- In pivotal tracker doing Customisation is bit difficult.

9. Vivifyscrum:

Vivifyscrum is a web-based scrum project management tool that handles all your project in one place. It comes with free Scrum training via their Vivify Scrum EDU course. The

toll offers fixed price licensing for SMBs trying to navigate the growing world of monthly workflow app subscriptions.



Fig- 2.10 Vivifyscrum [10]

The advantages of the Vivifyscrum are as below: -

- You can easily add and rearrange tasks on board
- Provide labels and card types that work well for added organization
- Offers helpful shortcuts to assign, label, type tasks quickly

The disadvantages of the Vivifyscrum are as below: -

- It lacks 3rd party integrations
- Does not allow you to sort backlog items in the dashboard view
- Learning curve is steep. Needs lots of reading and practice

10. Jira:

Jira is one of the popular Scrum Project management tools that offers thousands of functionalities such as Scrum boards, customizable backlogs, reporting options, to name a few. It is one of the best scrum project management tools for IT and software development companies and large business organizations.



Fig- 2.11 Jira [11]

The advantages of the Jira are as below: -

- Offers single view for all user stories
- It allows you to create tasks, sub-tasks, spikes, and epics
- It helps you create customizable workflows that match your company's work style.
- Offers centralized administration across all Atlassian Cloud products

The disadvantages of the Jira are as below: -

- No built-in timeline to track your project progress
- No collaboration features to communicate with your team
- It's mainly built for engineering and software development teams
- No idea management features to keep track of your ideas and plans

Case Study on “JIRA Tool”:

What is JIRA Tool?

Jira Software is an agile project management tool that supports any agile methodology, be it scrum, kanban, or your own unique flavor. From agile boards, backlogs, roadmaps, reports, to integrations and add-ons you can plan, track, and manage all your agile software development projects from a single tool.

Some important terms related to JIRA tool:

- **Scrum:**

Scrum is a framework within which people can address complex adaptive problems, while productively and creatively delivering products of the highest possible value. Scrum is a lightweight framework that helps people, teams and organizations generate value through adaptive solutions for complex problems.

- **Scrum Role:**

A Scrum team consists of three roles: the Scrum Master, the product owner, and the development team. While there is only one Scrum Master and one product owner, there are generally several development team members. These roles collectively are known as scrum roles.

- **Scrum Master:**

A Scrum Master is a professional who leads a team using Agile project management through the course of a project. A Scrum Master facilitates all the communication and collaboration between leadership and team players to ensure a successful outcome.

- **Roadmap:**

Roadmaps in Jira Software are team-level roadmaps useful for planning large pieces of work several months in advance at the Epic level within a single project. Simple planning and dependency management features help your teams visualize and manage work better together.

- **Sprint:**

A sprint is a fixed time period where teams complete work from their product backlog. Sprints are usually one, two, or four weeks long. At the end of the sprint, a team will typically have built and implemented a working product increment.

- **Backlog:**

The team needs to complete a set of issues within a specified time period, known as a sprint. The duration of the sprint is decided by both the team and the product owner. A sprint backlog is a subset of the product backlog and lists the work items to complete in one specific sprint.

Screenshots:

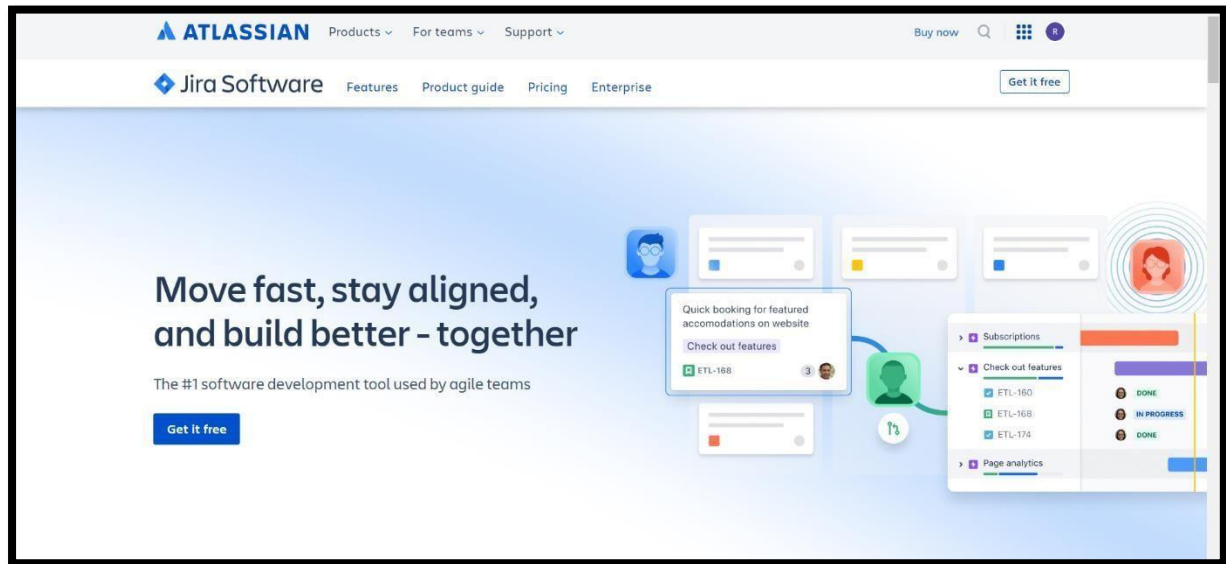


Fig- 2.12 Jira Homepage

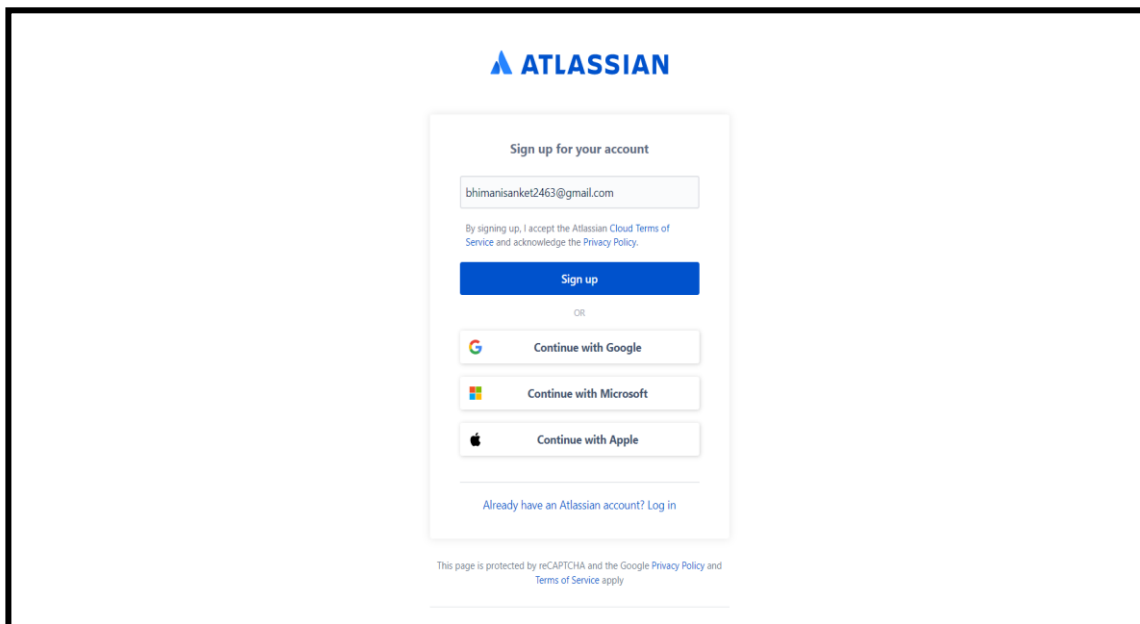


Fig- 2.13 Atlassian-creating Account

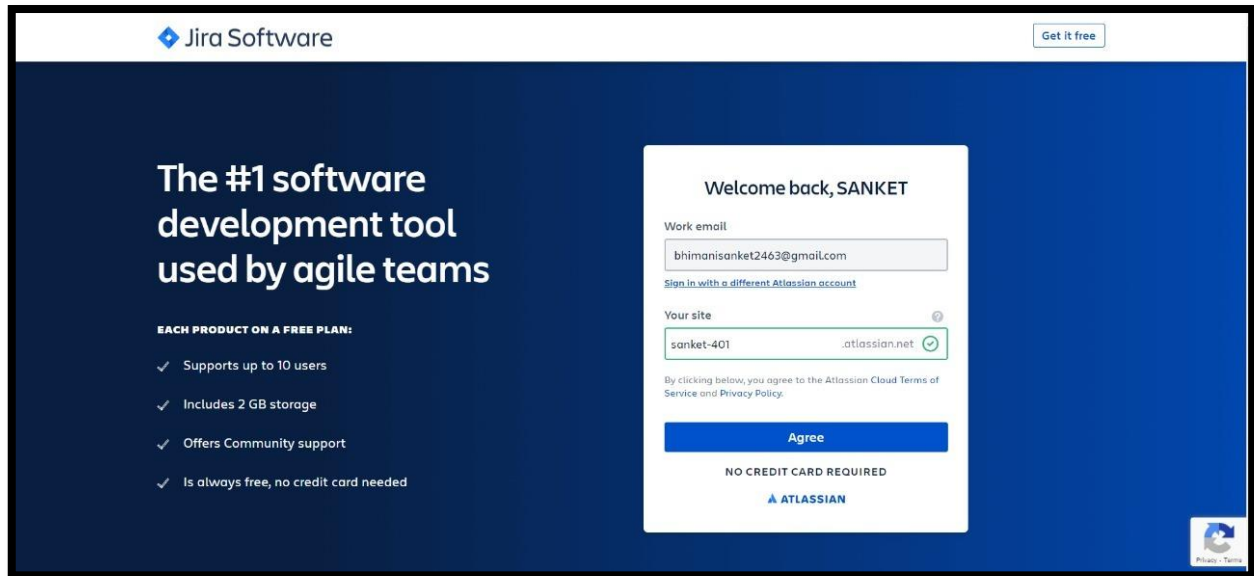


Fig- 2.14 Jira Software adding unique project name

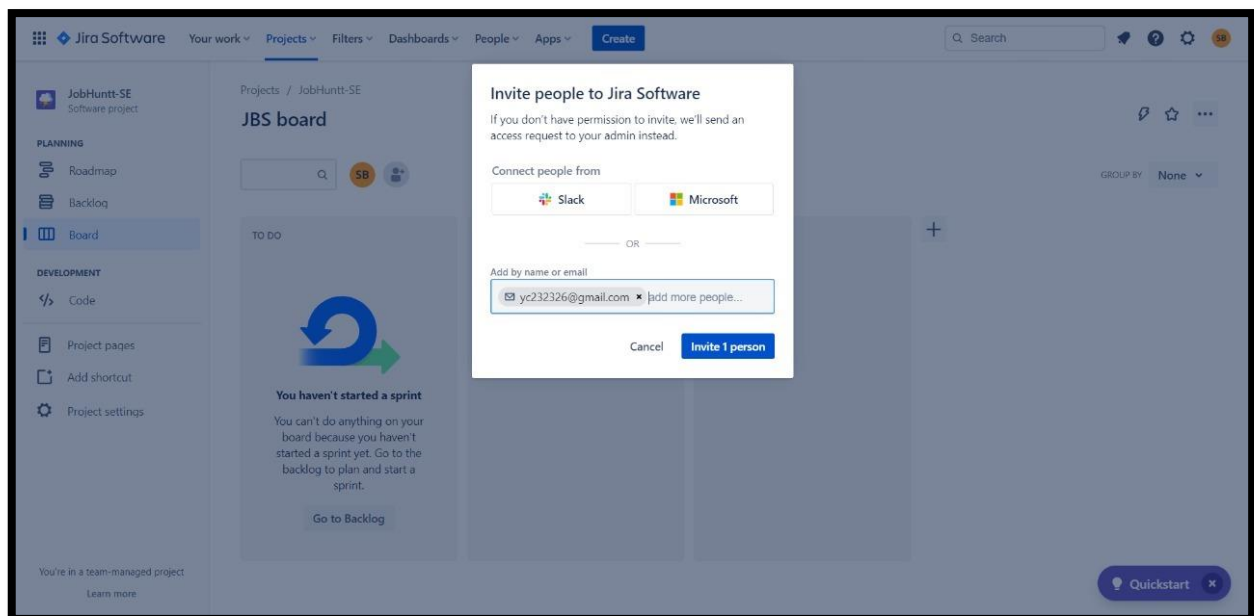


Fig- 2.15 Adding teammates to Project(1)

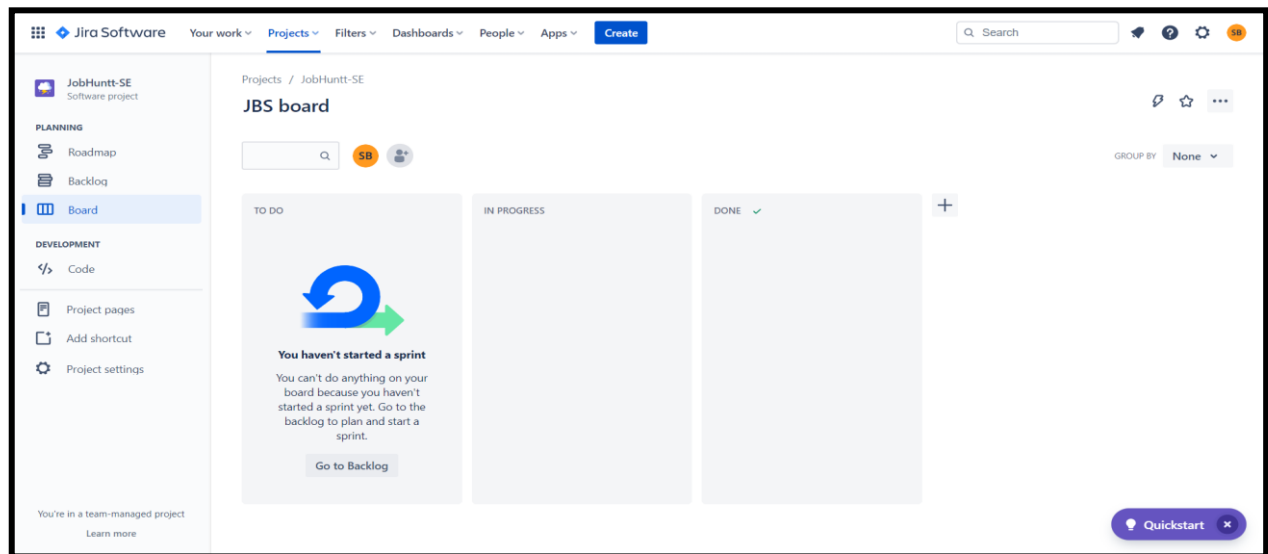


Fig- 2.16 JBS Board

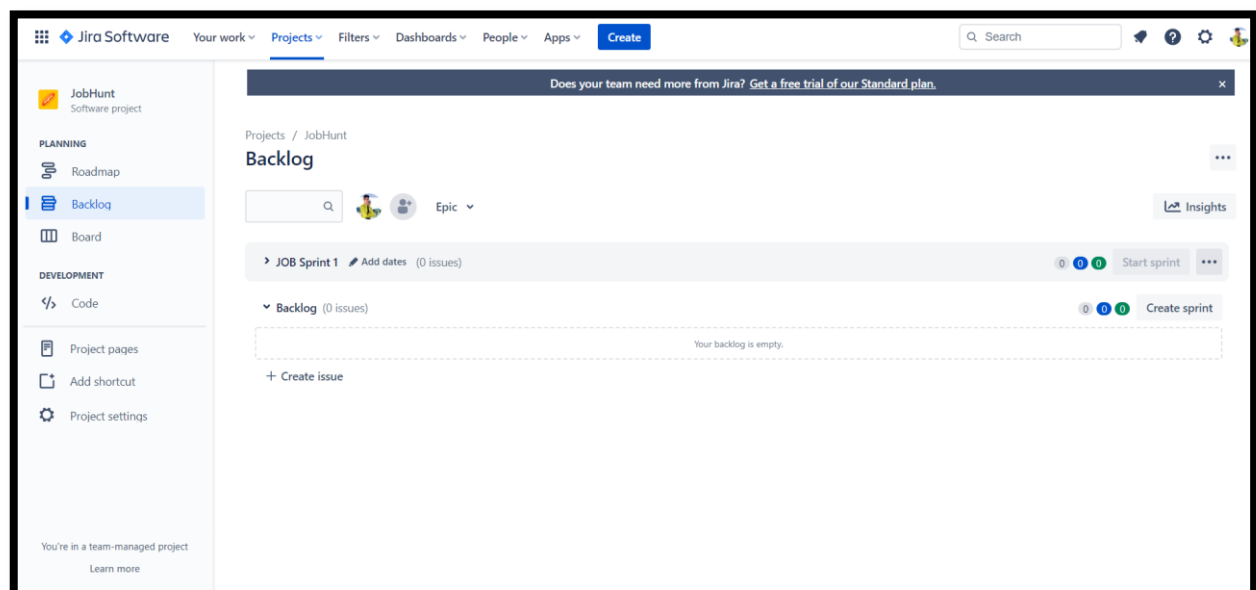


Fig- 2.17 JobHunt Backlog[1]

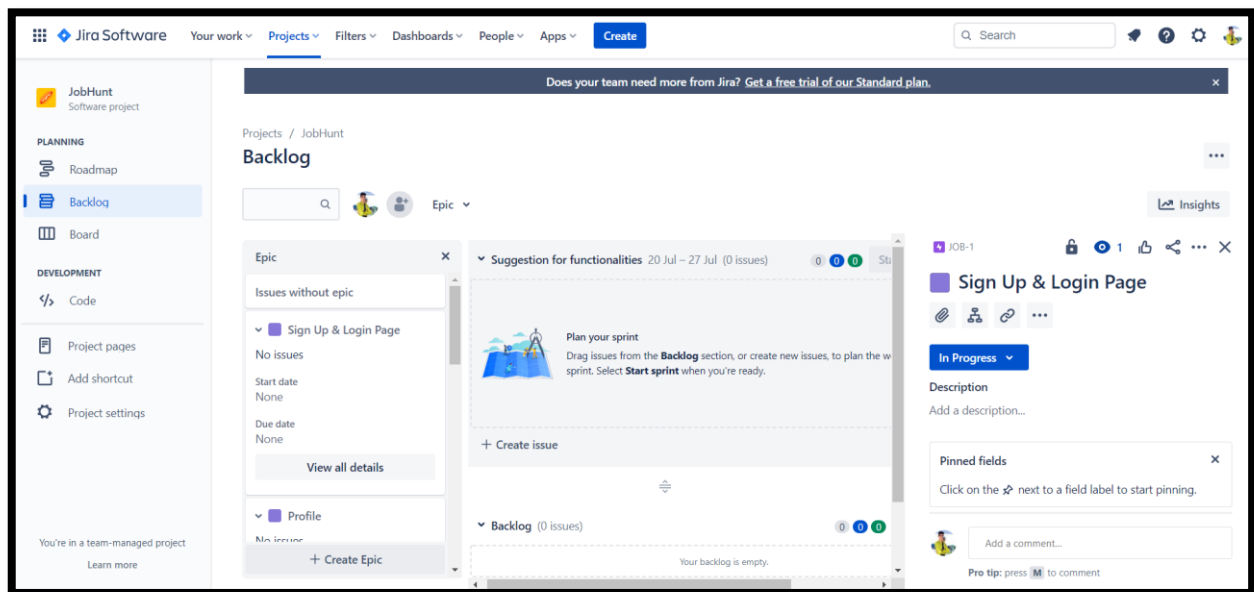


Fig- 2.18 Job Hunt Backlog[2]

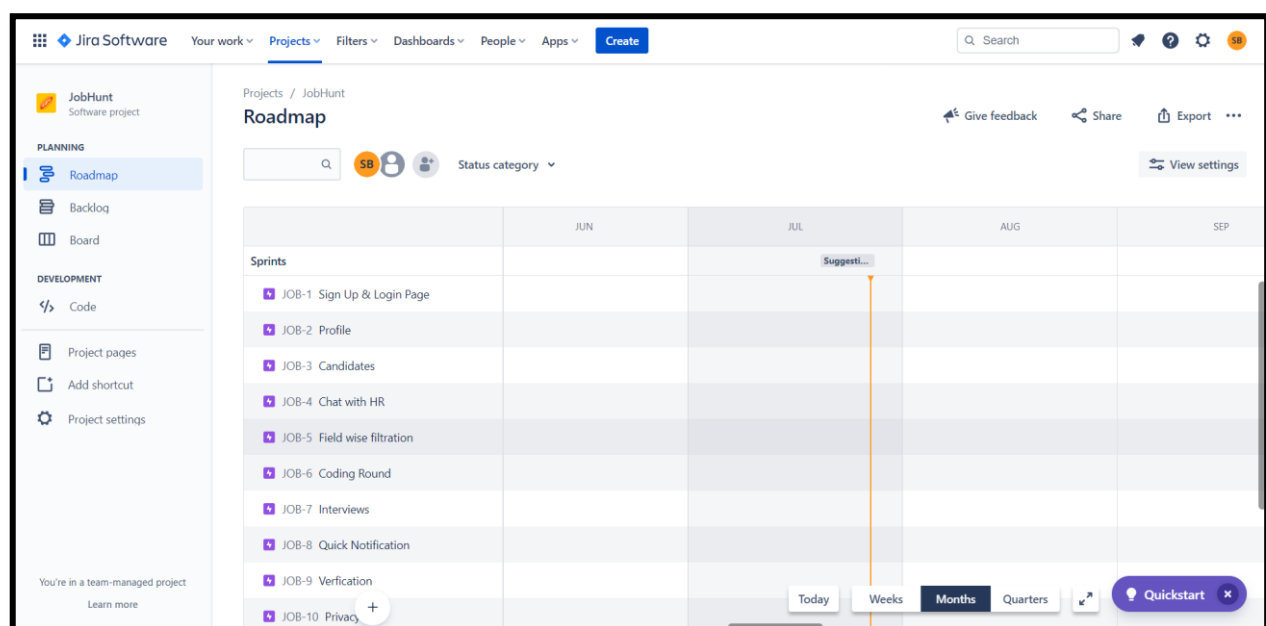


Fig- 2.19 Roadmap

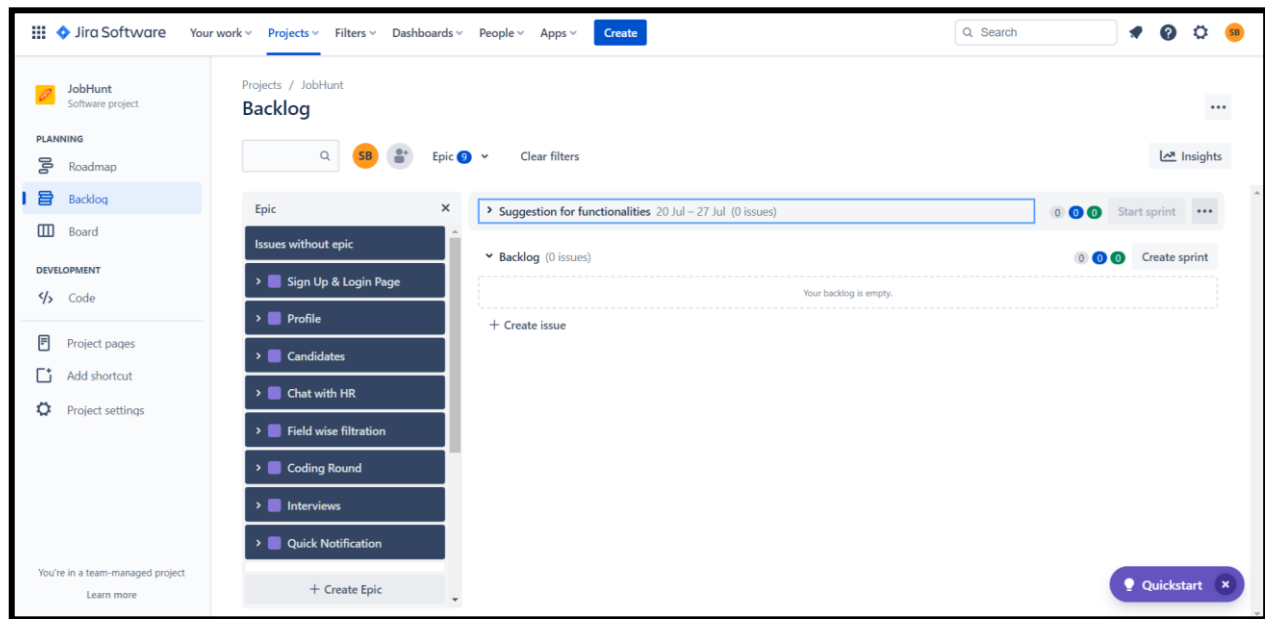


Fig- 2.19 Backlog

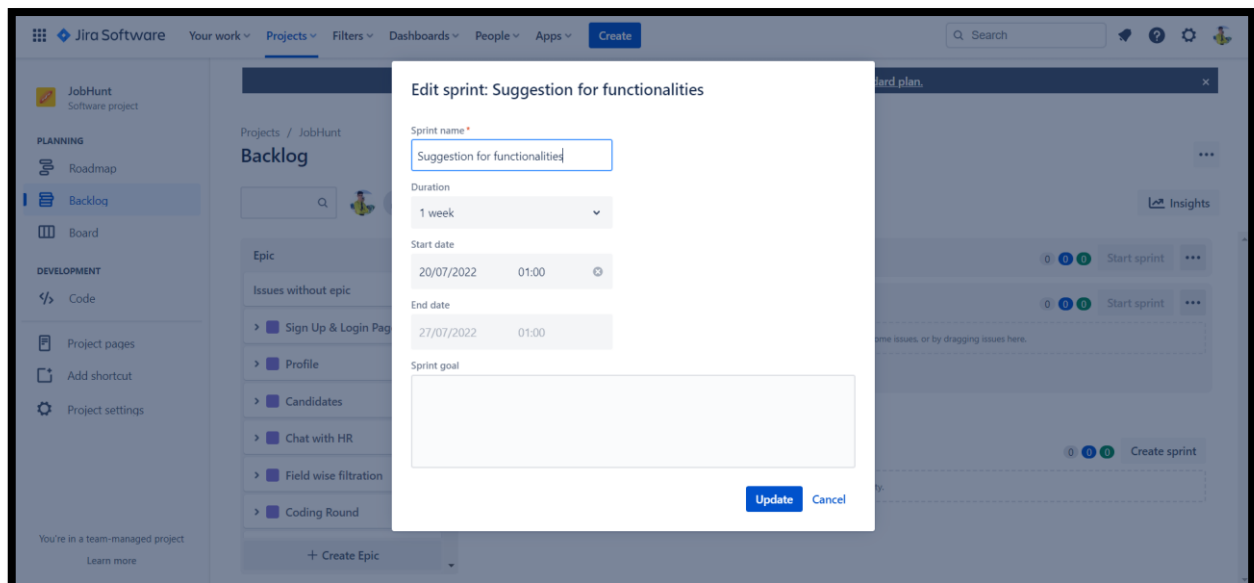


Fig- 2.20 Start Sprint

REFERENCES:

- [1] Agile Methodology: <https://www.nvisia.com/hubfs/agile-methodology-chicago.png>
- [2] Monday: https://blog.wearedrew.co/hubfs/logomonday.com_.png
- [3] Wrike: <https://web-static.wrike.com/content/themes/wrike/dist/img/raster/wrike-logo.png?av=6d01aebbf43aefb3dd6ce13de11f7a48>
- [4] Clickup: https://clickup.com/landing/images/logo_on-purple_vert.png
- [5] Kissflow: https://static.businessworld.in/article/article_extra_large_image/1654670822_U_F2nX_H_kissflow.jpg
- [6] Zoho sprints: <https://zohowebstatic.com/sites/default/files/ogimage/zoho-logo.png>
- [7] Asana: https://upload.wikimedia.org/wikipedia/commons/thumb/3/3b/Asana_logo.svg/1024px-Asana_logo.svg.png
- [8] Targetprocess: https://encryptedtbn0.gstatic.com/images?q=tbn:ANd9GcSnppg0gQVgVki7QPSc_nqR6tjepIWL6KFkm6g&usqp=CAU
- [9] PivotalTracker: https://images.g2crowd.com/uploads/product/image/social_landscape/social_landscape_b570b5cbcdc05095a873757562aab613/pivotal-tracker.png
- [10] Vivifyscrum: <https://vsuploadsproduction.nyc3.cdn.digitaloceanspaces.com/uploads/blog/meta/imageQcTpmXpwms.jpg>
- [11] Jira: https://www.guru99.com/images/5-2015/050215_0525_Top20BugTra2.png

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