1   Related Work

As the agile development process gradually become the standard software developing procedure for its flexibility and fasting delivery, a good agile development tool could enhance the agile process efficiency by keeping track of various subtasks and arranging the resources dynamically. In the following subsections, we will briefly showcase some agile developments tool utilized in the industry.
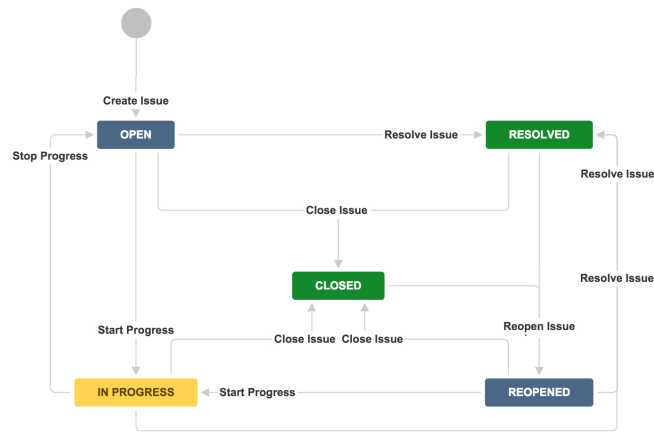
1.1   JIRA

Figure 1: The typical workflow in JIRA

Jira is a powerful, scrum development tool for large software development process tracking through timeline and kanban by Atlassian. The main idea of Jira is about the "issue", where any requirements, bugs, changes could be considered as an issue which needs to be resolved. Thus, by constantly managing and monitoring the issues situation of the whole project, the leader/manager could gain a broad understanding of the project development procedure. The typical workflow in Jira can be abstractly summarized as shown in Figure 1.

1.2   Trello

Trello is a task management tool with kanban displaying workflow also by Atlassian. Instead of large project management with good scalability, Trello is mainly used for small task management like daily to-do list. The main advantage of Trello would be its simplicity and user-friendly mechanisms. Given these features, Trello is typically used by small companies or project teams that does not have complex dependency issues in development.
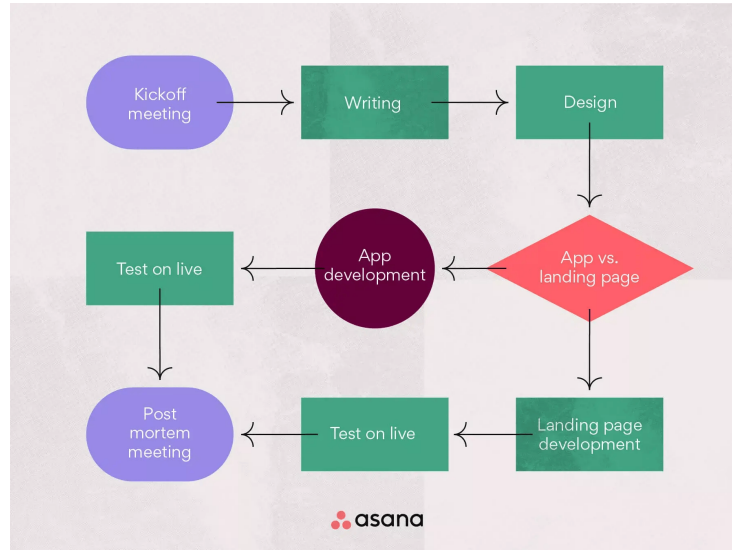
1.3   Asana

Figure 2: The broad workflow in Asana

Asana is a product-based team management tool. Instead of software development, Asana extends the idea of agile development into product perspective and provides similar functionality like kanban, task list, and timeline for better product management. The main difference between Asana and previous mentioned applications is the focus. Asana would integrate additional functionality from product manager viewpoint, while Jira integrate more functionality from software developer viewpoint. As shown in figure 2, the typical broad workflow of Asana is similar to the pipeline of product development from initialization to final launch.