Agile development with Jira

HPC-04 Software Engineering

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Jira for Project Management

Jira is a commercial project management software from Atlassian. It is one of the most popular choices (and also used for project management at THD).

Why is it so popular?

- the core functionality is solid and (easily) customizable
- bridges the gap from developer tool to management tool (analytics, simplified views, different 'flight levels')
- good integration with other Atlassian and 3rd party tools (e.g., connection to Gitlab)

Are there alternatives? Sure!

- ServiceNow
- Monday.com
- Stackfield
- Gitlab
- OpenProject (OSS)

Projects

The core container for a project is a **Jira Project**. There are different project types:

Company managed projects

Managed by Jira administrators and highly customizable. Can be used to setup processes and tracking across individual team projects. Configuration is shared across projects. Example: Company roadmap.

Team managed projects

Managed by project administrators with changes contained to the project. Allows teams to adapt their workflows and boards to better match their requirements. Example: Sprint board, Issue templates.

Projects contain issues, workflows, boards and other resources.

Issues

Each work item is described as **issue** (Source). There are different (customizable) types:

Epic ⚡

Represents a larger body of work. Epics are often represented as a collection of multiple issues. Example: Start a lemonade stand.

Story 🔖

Represents a requirement expressed from the perspective of the user. Example: As a lemonade enthusiast, I'd like to have a really cold, crisp drink.

Sub-task ⧉

Represents a more granular decomposition of the work required to complete a standard issue. A sub-task can be created for all issue types. Example: Squeeze lemons.

Issues #2

Bug 🔲

Represents a problem that needs to be fixed. Example: The lemonade is too sour.

Task ✅

Represents a task that needs to be done. Tasks are used as 'catch-alls' and when the work cannot be accurately represented by the other issue types. Example(s): Make lemonade. Create sign. Set-up stand.

> Important: The basic classification (sometimes with different names) is used in different tools and not exclusive to Jira!
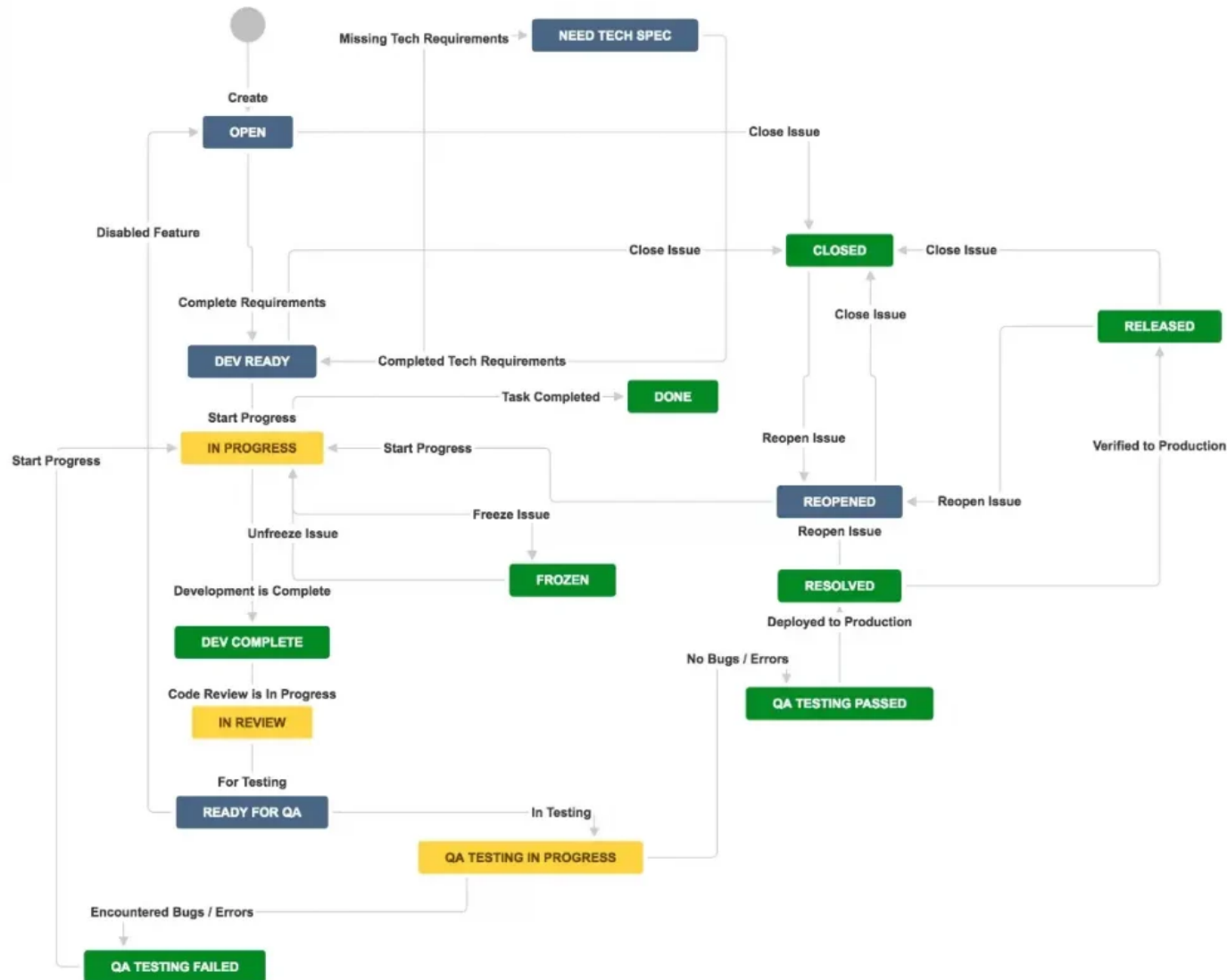
Workflows

A workflow describes the lifecycle of an issue from start to finish. Workflows are highly customizable and can differ per project or issue type.

- A workflow moves between **statuses** (boxes) using **transitions** (arrows).
- Each status has different meta-data (**fields**)
- Each status can be mapped to a specific column in a (Kanban) board
- Multiple statuses can map to a single column (Code Review, UX Review, QA Review → Column:Review)
- Transitions allow automatic change of meta-data

Workflows make (complex) work visible

Using Jira for User Stories

Demo: https://jira-stud.th-deg.de/projects/MAIS/

Overview:

- Issues: https://www.atlassian.com/software/jira/guides/issues/overview#what-is-an-issue
- Workflows: https://www.atlassian.com/software/jira/guides/workflows/overview#what-is-a-jira-workflow
- Boards: https://www.atlassian.com/software/jira/guides/boards/overview#board-vs-project

Videos:

- Using the Scrum template: https://youtu.be/Ult034kcMc0
- Jira Issues: https://youtu.be/LeHM1eCb4zo

Hands-On-Jira

Log into Jira (https://jira-stud.th-deg.de) and go to the project MAI-4-Basic (MAIB)

In the project…

1. Create a new issue of type Epic ⚡ and use your name as Epic Name.
2. Create a new issue of type Story 🔖 and add your user story from the exercise before.
   - Make sure the story belongs to the epic ("Epic Link")!
   - Assign the lecturer as Assignee for your story!