

# LES 100 JOURS DE RAN.DONNÉES 100 DAYS OF DATA.TREK

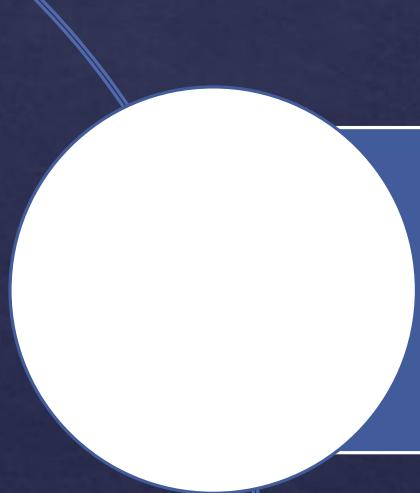


# Project management with GitHub

Safia Safa-tahar-henni

[safia.safa-tahar-henni@umontreal.ca](mailto:safia.safa-tahar-henni@umontreal.ca)

# Purpose of this course



It is important for you or your team to keep track of the work to be done on your project. We're going to show you a way to do this with the GitHub Project Board.



It is not the only way to do it, but we want to show you a practical way to do it.

# Kanban Method

Taiichi Ōno



Toyota



In the 50's Toyota wanted to compete with its American competitors. To achieve this, the Japanese company called an engineer Taiichi Ōno whose mission was to optimize the construction of the car manufacturer. The latter invented the Kanban method.

# Kanban Method

- 看板
- KANBAN

Kanban is a Japanese word meaning tags.

Coming from the Japanese automobile industry, Kanban aims at continuous process improvement. Companies are now massively using this agile method and its table visualization mode for their project management.



# How does the Kanban method work?



This makes it easy to manage priorities and to know the progress status of each task that can be easily prioritized.

# How does the Kanban method work?

Backlog	To DO	In Progress	Done

Sometimes the tables contain a 4th column, on the left, called the backlog. These are tasks that we are not working on yet.

# Example Kanban method

Backlog	To DO	In Progress	Done
ML	Statistical analysis Clustering	Parse data Visualization	Find dataset Find problematic

You can see at a glance what remains to be done, what is in progress and what has already been done.

→ The Kanban method evolves a project every day with a continuous improvement process.

# Example Kanban method

Backlog	To DO	In Progress	Test	Done
ML	Statistical analysis Clustering	Parse data Visualization	Test parse function	Find dataset Find problematic

Note that in some Kanban tables, a Test column can be added before the done column. This is particularly done in development projects that require a feature to be tested before it is considered done.

# Introduction to GitHub Project Boards

- ❖ Github project boards are a feature of GitHub made up of columns that you can use in conjunction with:
  - ❖ **Issues**: a great way to keep track of tasks, enhancements, and bugs for your projects.
  - ❖ **Pull requests**: let you tell others about changes you've pushed to a branch in a repository on GitHub.
  - ❖ **Notes**: Notes can be used to collect information such as task reminders.
- ❖ The elements of a table are represented by cards, one column represents a status. You can drag and drop cards to rearrange them in a column or move them to another column. You can also slightly modify the issues and pull requests by modifying the card on the table.
- ❖ In a repository, I can have several project boards.

# Templates

- ❖ You can use templates to quickly set up a new project board.
- ❖ New board will automatically include: columns, cards with tips on how to use project boards.
- ❖ There are 4 templates available:
  - ❖ Basic Kanban
  - ❖ Automated Kanban
  - ❖ Automated Kanban with review
  - ❖ Bug Triage

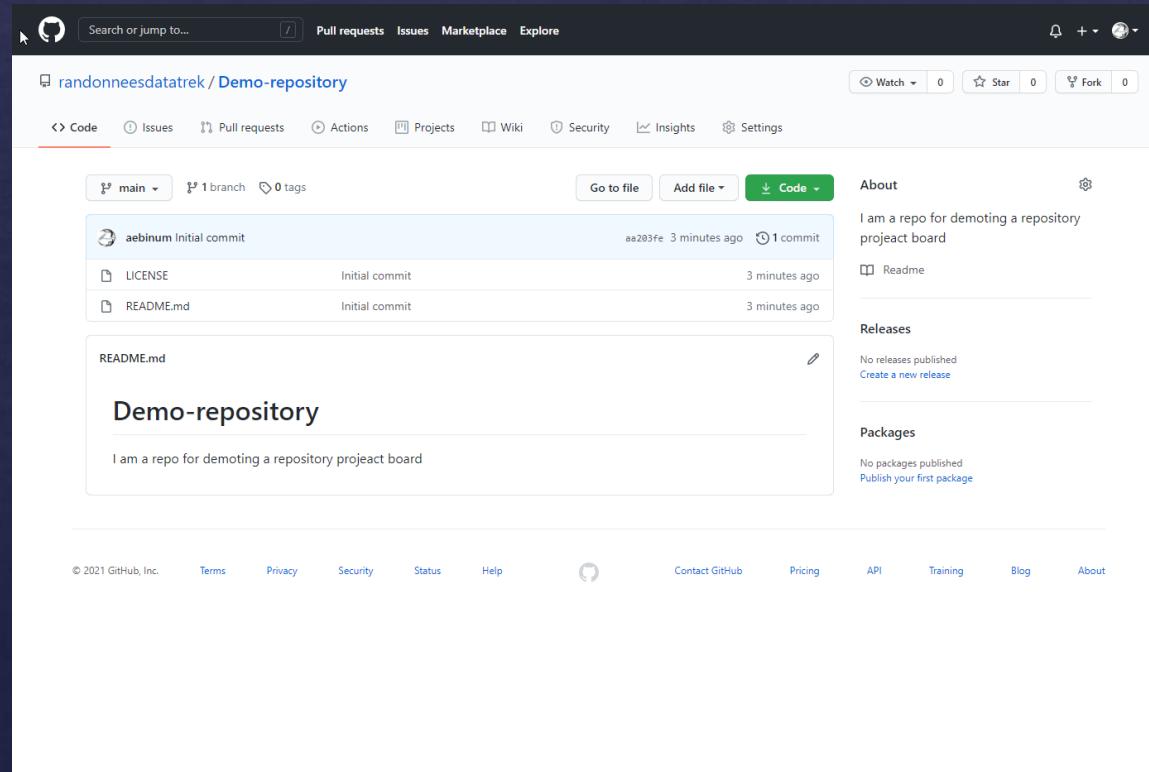
# Demo

# Create a repository

The screenshot shows a GitHub repository page for 'randonneesdatatrek\_2021'. The repository name is displayed at the top left. The main navigation bar includes 'Pull requests', 'Issues', 'Marketplace', and 'Explore'. Below the navigation is a search bar and a 'New' button. The repository 'partage' is listed, described as 'Ensemble des documents liés au Data.Trek'. It contains one Jupyter Notebook, 5 files, 1 star, 0 forks, 0 issues, and was updated yesterday. To the right, there are sections for 'Top languages' (Jupyter Notebook) and 'People' (listing 6 users). At the bottom, standard GitHub footer links are present.

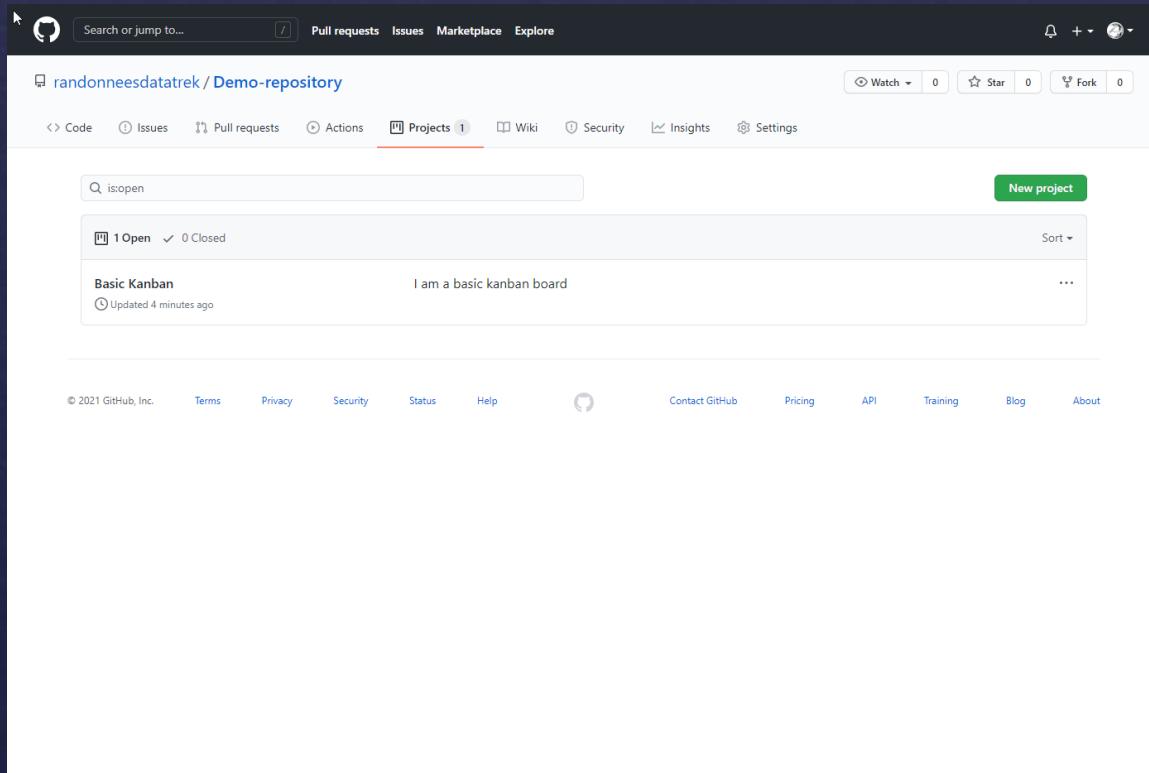
© 2021 GitHub, Inc. Terms Privacy Security Status Help Contact GitHub Pricing API Training Blog About

# Basic Kanban



With the Basic Kanban, you start with 3 columns: To Do, In Progress and Done. There is no automation by default, you create your cards using issues, pull requests or notes. And you move them manually from column to column following your process.

# Automated Kanban



With the automated Kanban, the table is exactly the same with the same 3 columns. However, the table is subject to certain automation rules. When certain events occur, such as adding a new issue to the table or closing an issue, the automation starts and automatically moves the card to the appropriate column according to your process.

# Manage automation

Manage automation for To do X

Choose a preset to enable progress tracking, automation, and better context sharing across your project.

Preset: **To do** ▾

Move issues here when...

**Newly added**  
Issues will automatically move here when added to this project.

**Reopened**  
The In progress column is already using this rule.

Move pull requests here when...

**Newly added**  
The In progress column is already using this rule.

**Reopened**  
The In progress column is already using this rule.

**Update automation**

TO DO presets: issues will be automatically moved here when they are added to this project. So when we add a new issue to this project, it will automatically appear in the TO DO column.

# Manage automation

Manage automation for In progress

Choose a preset to enable progress tracking, automation, and better context sharing across your project.

Preset: In progress ▾

Move issues here when...

**Reopened**  
If a closed issue in this project reopens, it will automatically move here.

Move pull requests here when...

**Newly added**  
Pull requests will automatically move here when added to this project.

**Reopened**  
If a closed pull request in this project reopens, it will automatically move here.

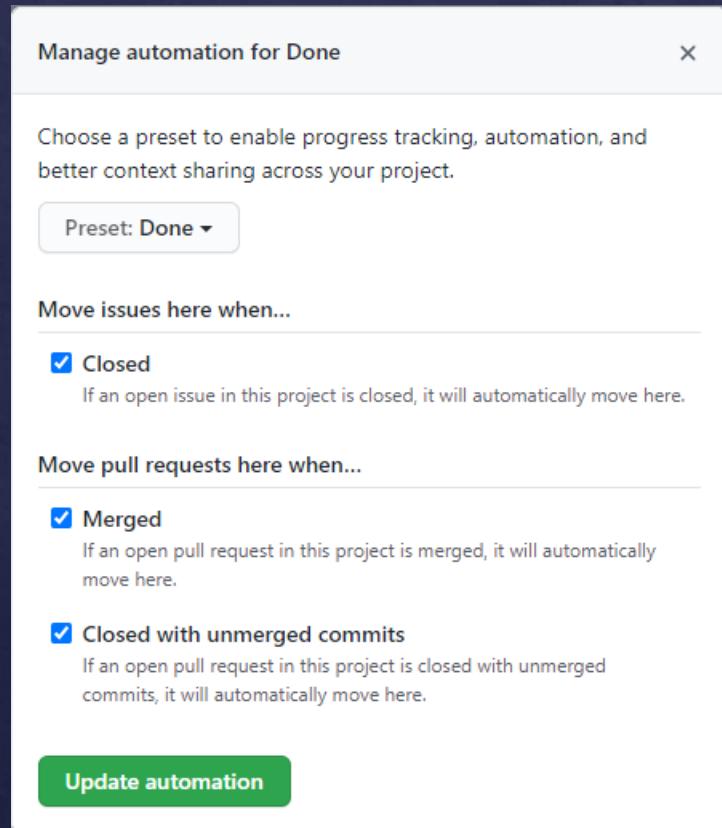
**Approved by reviewer**  
Pull requests in this project will automatically move here when they meet the minimum number of required approving reviews.  
Recommended when another column has the Pending approval by reviewer automation enabled.

**Pending approval by reviewer**  
Pull requests in this project will automatically move here when a reviewer requests changes, or it no longer meets the minimum number of required approving reviews. Recommended when another column has the Approved by reviewer automation enabled.

**Update automation**

In Progress presets: if an issue is reopened, or if a new pull request is added to the project or reopened it appears here

# Manage automation



Done presets: if an issue is closed, if a pull request is merged or closed with non-merged commits, it will be moved to this column.

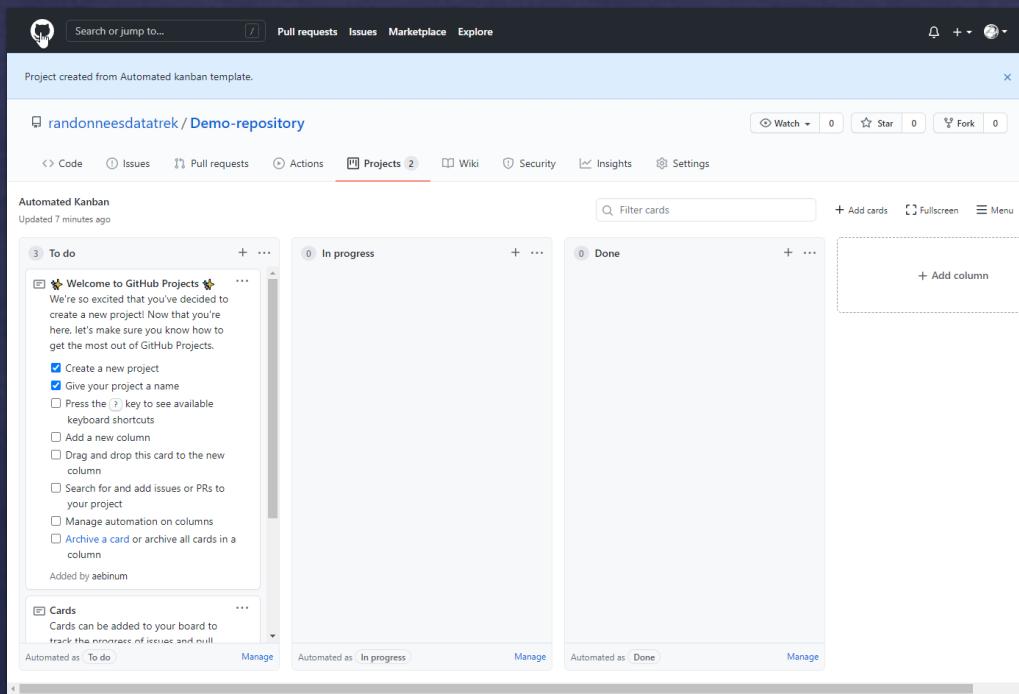
# Adding Issues to GitHub Project Boards

What is a GitHub issue?

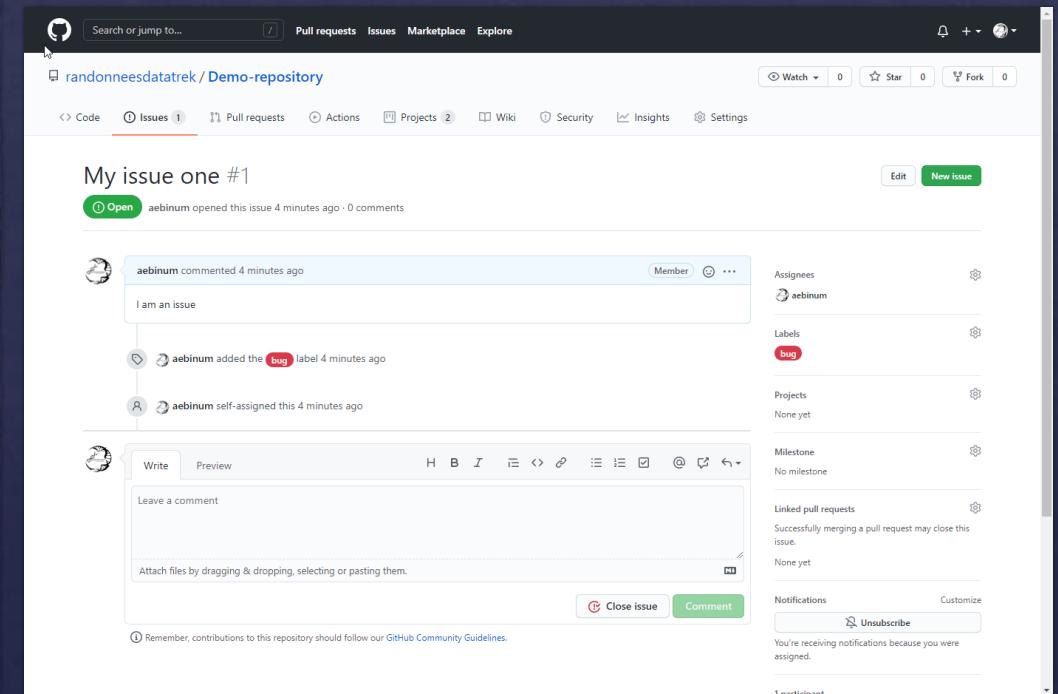
- ❖ You can collect user feedback, report software bugs, and organize the tasks you want to accomplish with issues in a directory.
- ❖ By creating an issue and adding it to a project table, you have the ability to
  - ❖ track and prioritize issues to work on. The issues themselves have no priority or order.
  - ❖ set up a process that will allow you to resolve your issues.
- ❖ The link between the table and the issue is bi-directional. Updates are reflected in the table and vice versa.

# Create issues

## Issue 1



## Issue 2



# Add issues to a project board

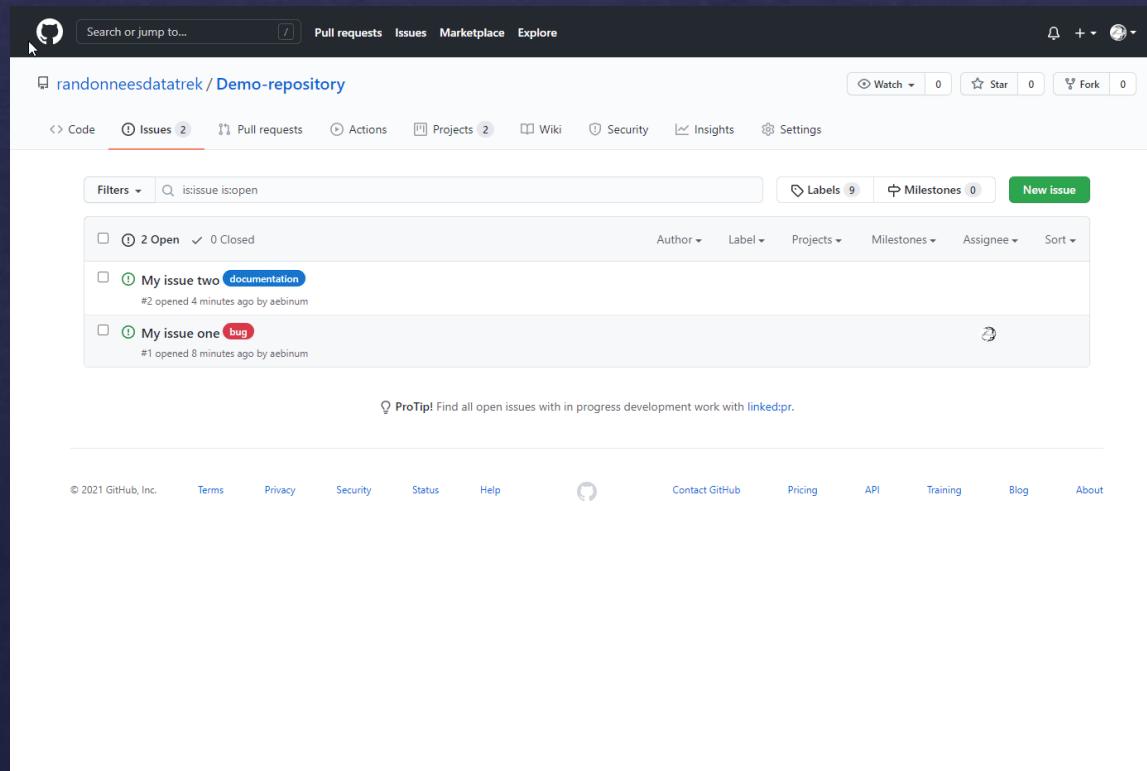
- ❖ From the Issues page :

The screenshot shows the GitHub Issues page for the repository "randonneesdatatrek / Demo-repository". The issue titled "My issue two #2" is open. The issue details include a comment from "aebinum" and an added "documentation" label. The issue body contains a rich text editor with "Write" and "Preview" tabs, and a "Leave a comment" input field. To the right of the issue card is a sidebar with fields for "Assignees" (No one—assign yourself), "Labels" (documentation), "Projects" (None yet), "Milestone" (No milestone), "Linked pull requests" (None yet), and "Notifications" (Customize, Unsubscribe). A note at the bottom states, "You're receiving notifications because you authored the thread." The footer of the page includes a reminder about GitHub Community Guidelines.

If there is no automation: it has not yet been added to a column because it does not know which column to use. In the Project Table tab, the issue is added on the Add cards page in Awaiting sorting mode

# Add issues to a project board

- ❖ From the Issues page :



The screenshot shows the GitHub Issues page for the repository "randonneesdatatrek / Demo-repository". There are two open issues listed:

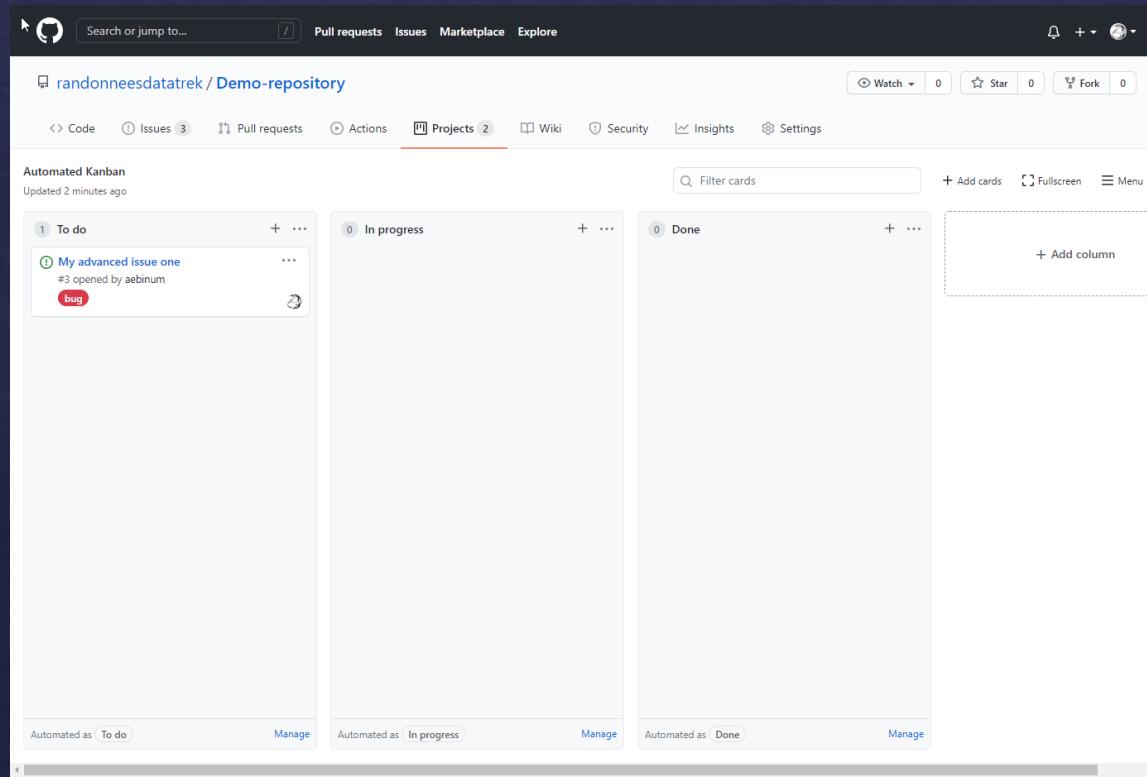
- My issue two (documentation)
- My issue one (bug)

The page includes standard GitHub navigation and search bars at the top, and footer links at the bottom.

If automated: the outcome will automatically go to the TO DO column.

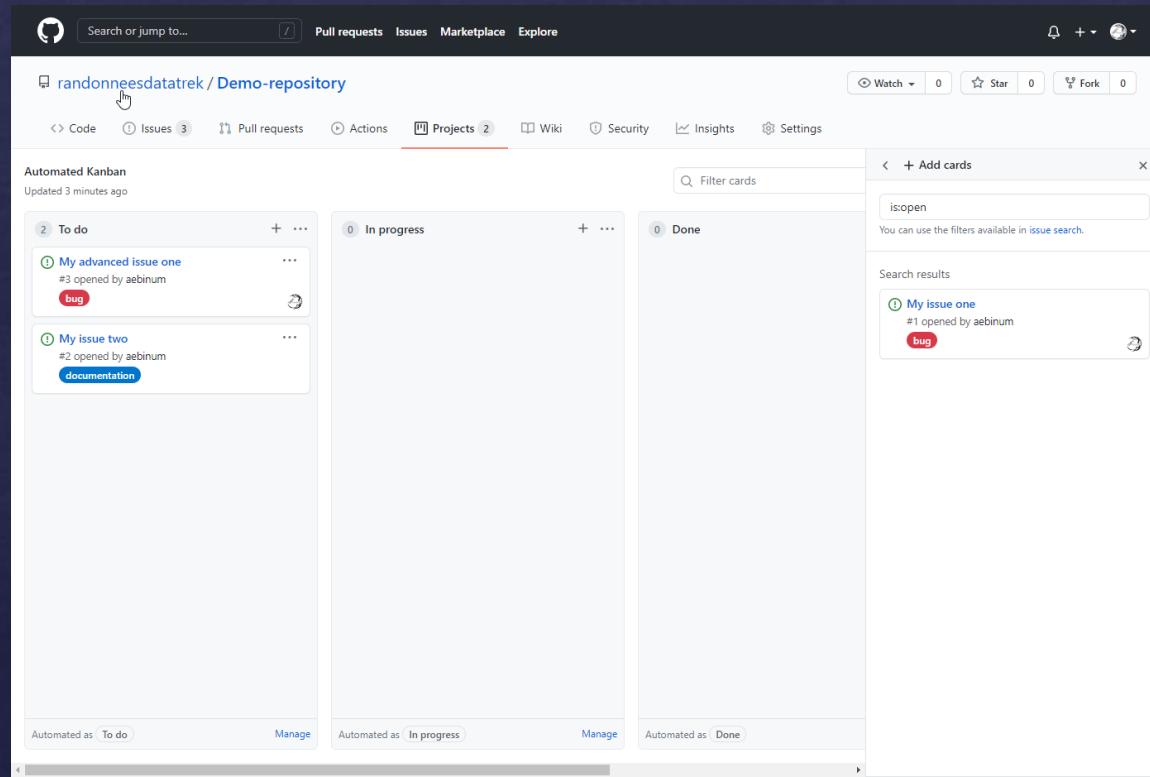
# Add issues to a project board

- ❖ From Project board:



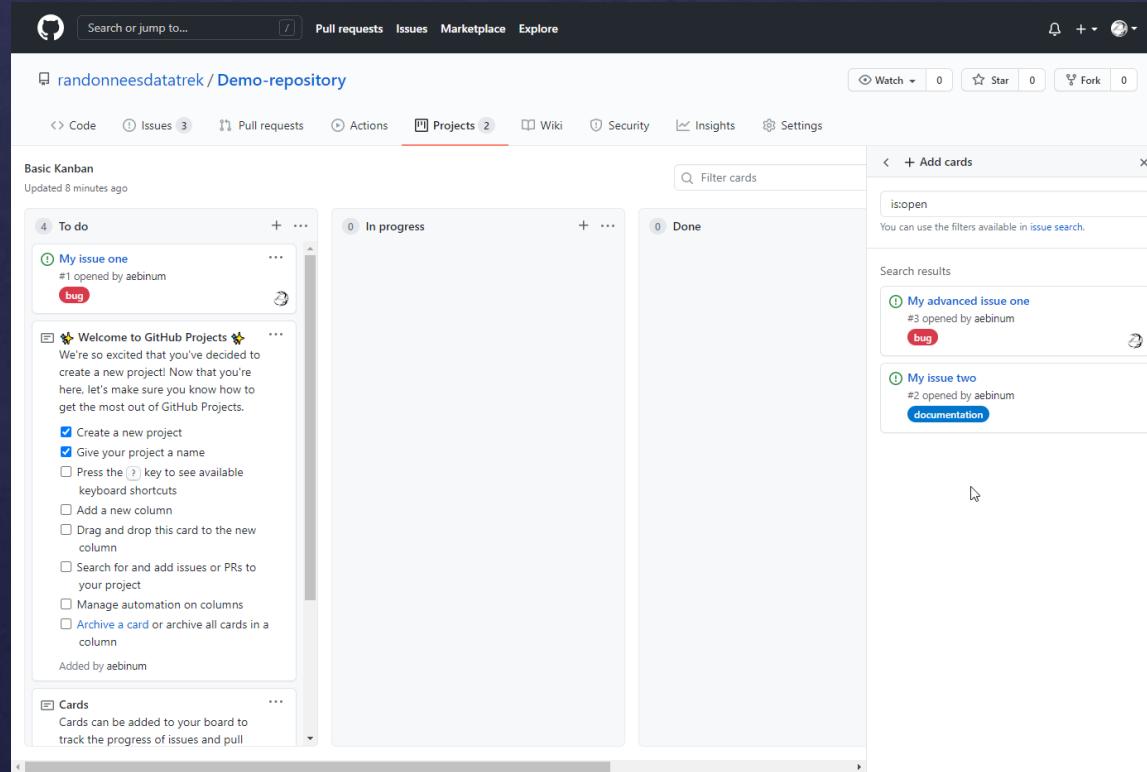
Click Add cards or Menu then +. Then drag the issue to a particular column and place it in the right place. If I don't want it on the board, I can't bring it back.

# Delete the issue from the project board page



Select the card (...) then remove from project and confirm. The card is then removed from project. If I do a refresh, the card will be back on the page + Add cards.

# Add a new issue by using keyboard shortcuts



Tab 3 times to move to the first search result then click on the space bar, the card is highlighted and shifted a little, it is now selected. Use the arrow keys to move the card. Press the Enter key to lock it in place.

# Ressources

- ❖ [https://www.youtube.com/watch?v=i2-WWbYJn\\_w&t=306s&ab\\_channel=StrategicMarketing](https://www.youtube.com/watch?v=i2-WWbYJn_w&t=306s&ab_channel=StrategicMarketing)
- ❖ <https://www.journaldunet.fr/web-tech/guide-de-l-entreprise-digitale/1443832-kanban-une-methode-agile-de-gestion-de-projet-visuelle-et-continue/>
- ❖ <https://www.planzone.fr/blog/quest-ce-que-la-methodologie-kanban>
- ❖ <https://fr.wikipedia.org/wiki/Kanban>
- ❖ <https://docs.github.com/en/free-pro-team@latest/github/managing-your-work-on-github/creating-a-project-board>
- ❖ [https://www.youtube.com/watch?v=idZyqNIrt84&t=139s&ab\\_channel=MickeyGousset](https://www.youtube.com/watch?v=idZyqNIrt84&t=139s&ab_channel=MickeyGousset)
- ❖ <https://docs.github.com/en/free-pro-team@latest/github/managing-your-work-on-github/managing-your-work-with-issues-and-pull-requests>
- ❖ [https://www.youtube.com/watch?v=vxgd6TO4IfQ&ab\\_channel=MickeyGousset](https://www.youtube.com/watch?v=vxgd6TO4IfQ&ab_channel=MickeyGousset)