

Kanban with Trello





What is "kanban" and why use it?

Kanban was invented in Japan as an inventory management system focused on Just-In-Time (JIT) production.

JIT allows for customers to 'pull' products into the production stream by placing an order whereas the previous method was for factories to 'push' products into the stream.



What is "kanban" and why use it?

Kanban translates to 'card signal' in Japanese. When used in supermarkets, staff would place kanban cards on shelves next to items that were running low. This card would act as a signal for staff to go to the back and find stock to replenish the shelf.

On a kanban board a card typically represents a request for a product or a service. In the IT industry a kanban card will represent a single work task. The IT industry can use kanban boards to:

- 1. Visualize workflow
- 2. Limit Work in Progress
- 3. Measure and Manage Flow
- 4. Make Policies Explicit
- 5. Recognize Improvement Opportunities



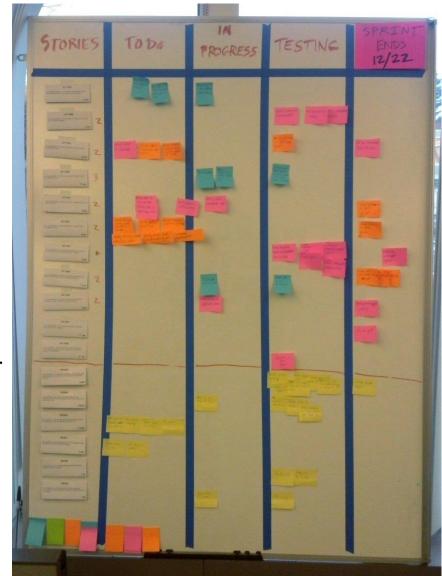
Visualize workflow

IT Kanban boards are organized with 3 or more vertical swimlanes or columns that represent the possible stages a task can be in.

User stories can be written in the following format:

"As a user I want {{ feature }} so that I can have {{ value }}."

User stories are not tasks. Typically a user story is broken down into multiple tasks and each task then moves through each of the lanes according to the processes defined by your team.





Visualize workflow

To Do - items in this column have not been accepted by a team member yet. These cards represent the tasks that go into the active story.

In Progress - when a team member accepts a task they must take a card from the To Do column and place it in the In Progress column. The goal is to limit the number of work tasks in progress to a minimum.

Testing - When a task is completed the work must be tested. If a team is large enough then a separate team member may be asked to test the work of their teammate.

Completed - After an item has passed testing it is done and moved to the last column on the right.





Limit work in progress

Typically, a single team member should only have one task in progress at a time. Some teams may even go as far as making a formal rule about the number of tasks a team may have in progress.

Additional teams may be added to a board by drawing a horizontal line across all the swimlanes to indicate a second stream of production.

Limiting work in progress has two major benefits:

- 1. A steady stream of work items is moved to testing
- 2. Fast failure can help the team adjust their plan





Measure and Manage Flow

The importance of flow becomes more apparent with larger teams. If one team member has to stop and wait for another teammate to deliver a task then it causes a disruption and down time.

If a team member receives batches of tasks all at once instead of one at a time then this can also cause disruptions and down time.

It is possible to maintain the flow of all teams by adjusting the number of tasks allowed in a column at a time. By controlling how many tasks are started at once, a manager can control the evenness of the flow.





Make Policies Explicit

Kanban columns represent milestones in a task's lifecycle. At each milestone your team may wish to implement a policy. For example, your team may decide that no user story can be broken into tasks without a senior developer being present at a meeting and that it must be the senior developer who adds tasks to the To Do column. This policy can provide oversight and quality assurance.

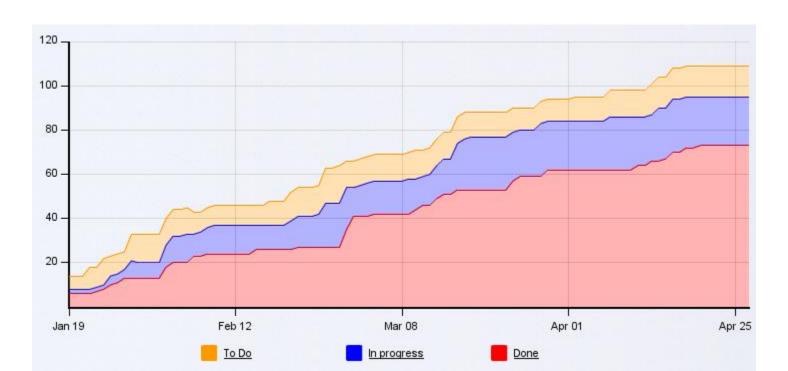
Policies can even have their own columns. One policy made explicit in the example shown to the right is that 'all tasks must be tested before they are considered complete'. This added column makes testing explicitly mandatory - no matter how small the task. No task is able to move to the last column without first being placed in the Testing column.





Recognize Improvement Opportunities

Cumulative Flow Diagrams can be made by monitoring Kanban boards. Every day the tasks in each column are tallied and represented on an area chart. In the chart shown below we can see that In Progress tasks tend to bulge as new To Do tasks remain steady. This may indicate that more resources are required for In Progress tasks.





What is "kanban" and why use it?

Kanban is a useful way of organizing tasks and teams and can provide the following benefits:

- 1. Visualize workflow
- 2. Limit Work in Progress
- 3. Measure and Manage Flow
- 4. Make Policies Explicit
- 5. Recognize Improvement Opportunities



https://trello.com/



Why Use Trello?

There are many alternatives available for making Kanban boards:

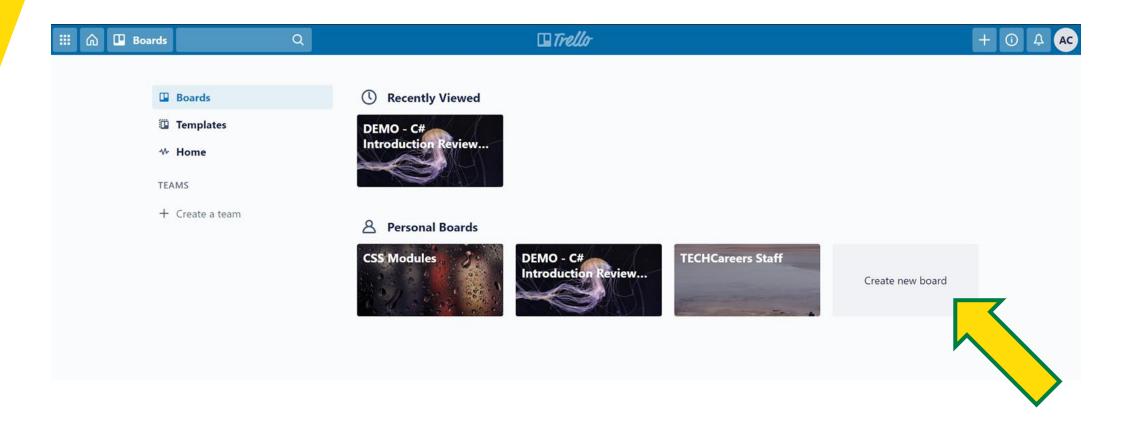
- Jira, by Atlassian
- monday.com
- Meister Task
- smartsheet.com

Typical features include:

- To do lists & kanban
- Performance tracking
- Communication
- Integrations with other team software like git, Slack, Microsoft Teams

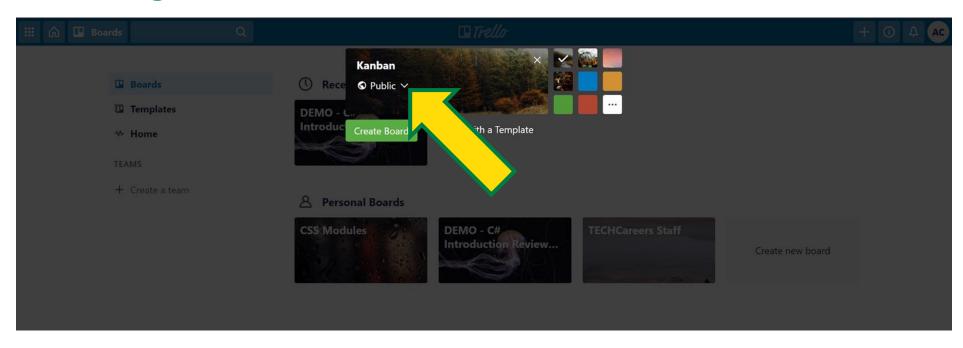


Creating a new board



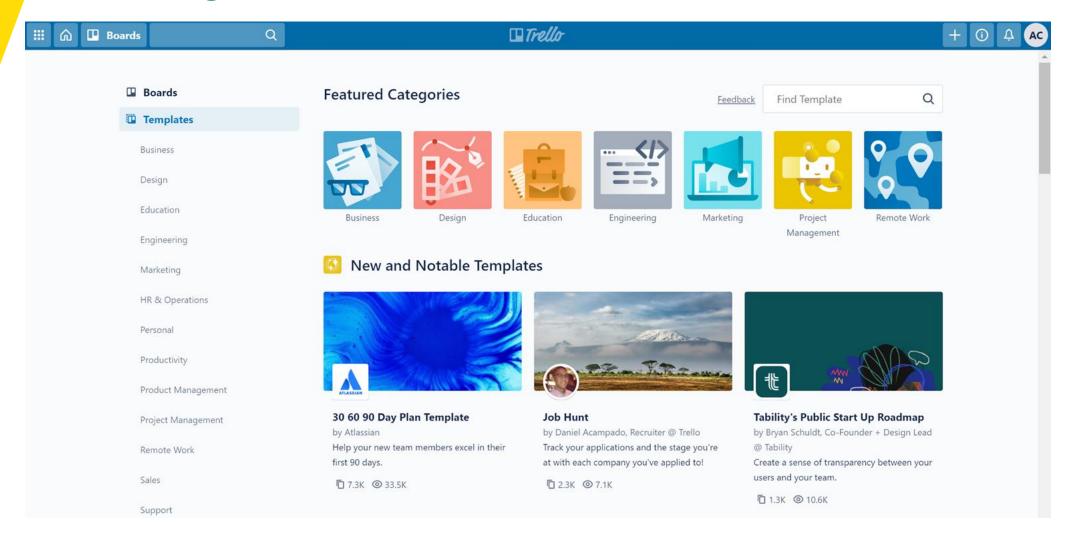


Creating a new board



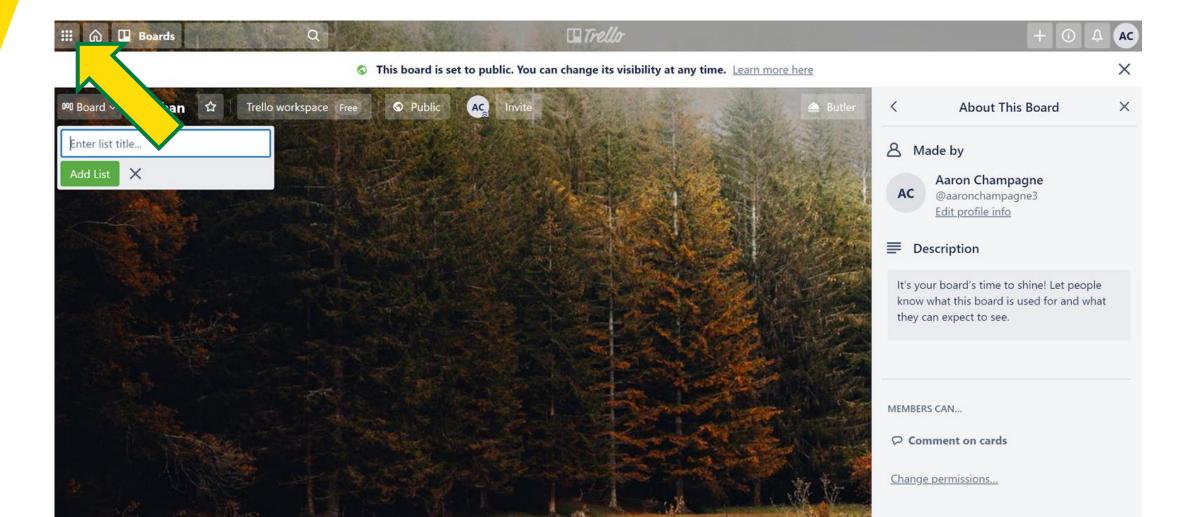


Creating a new board



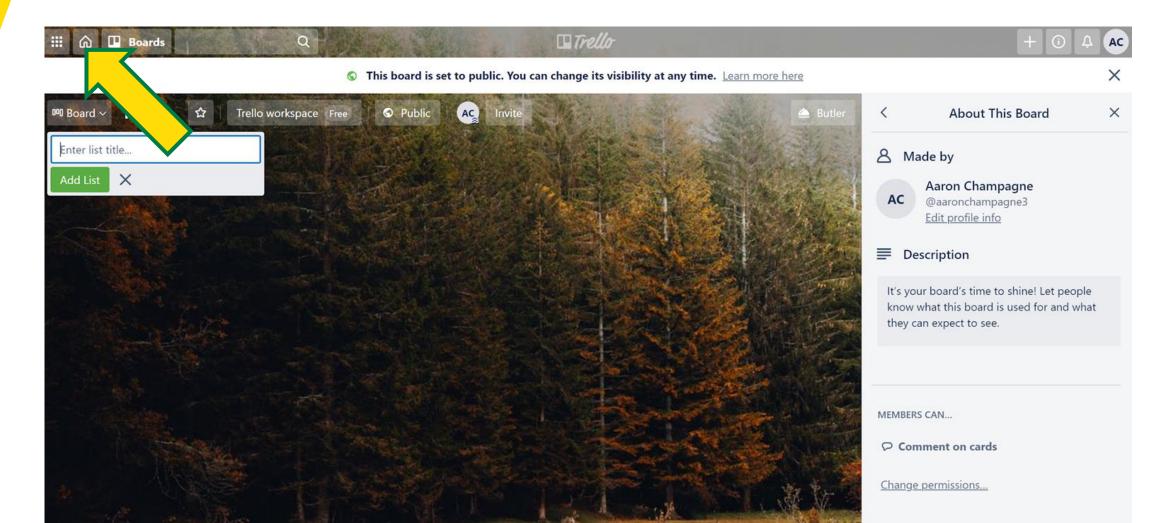


A Tour of the Board: Promotions



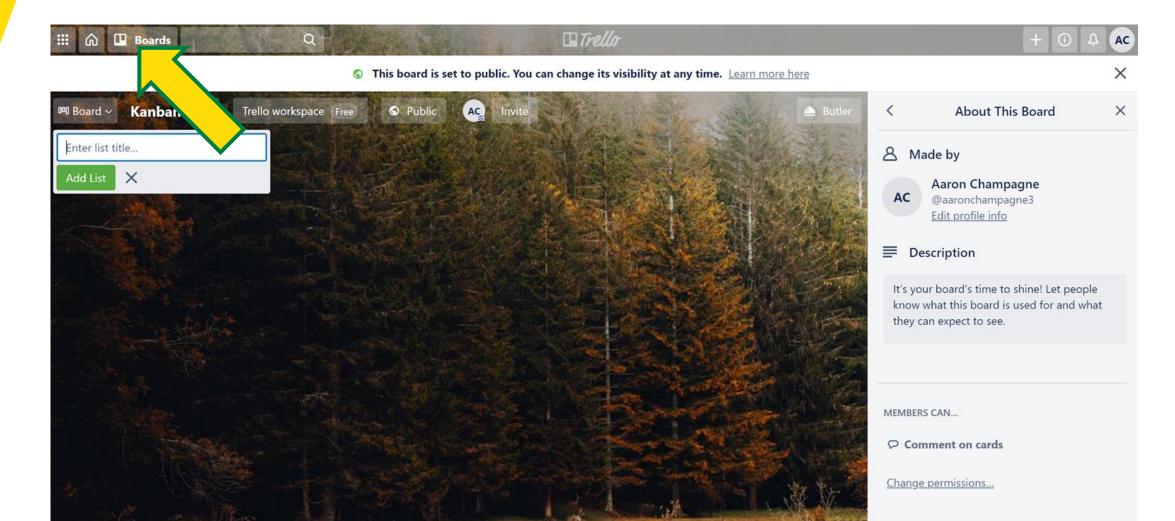


A Tour of the Board: Home Navigation



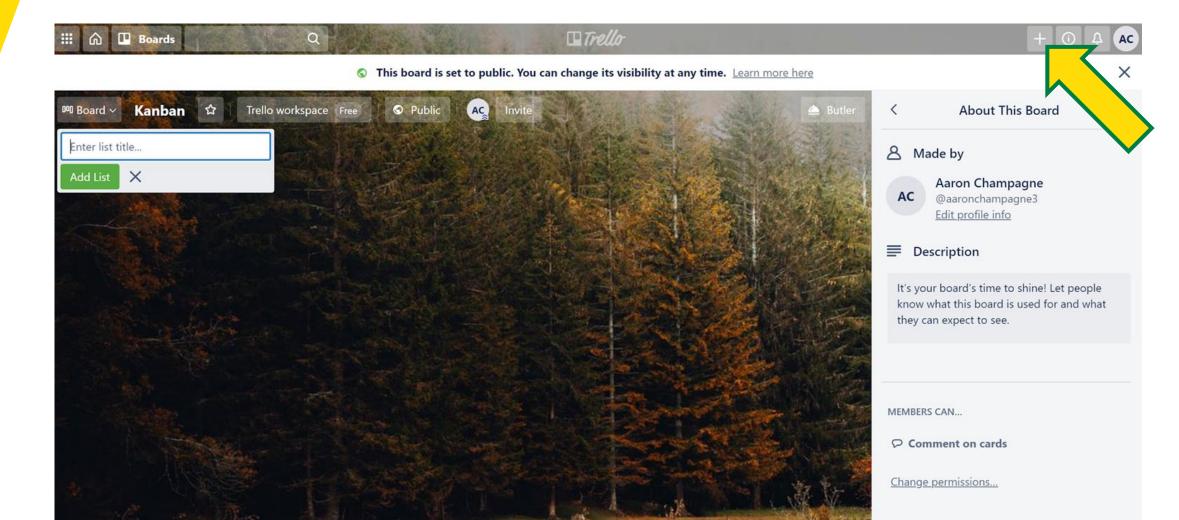


A Tour of the Board: Sub Menu of All Your Boards



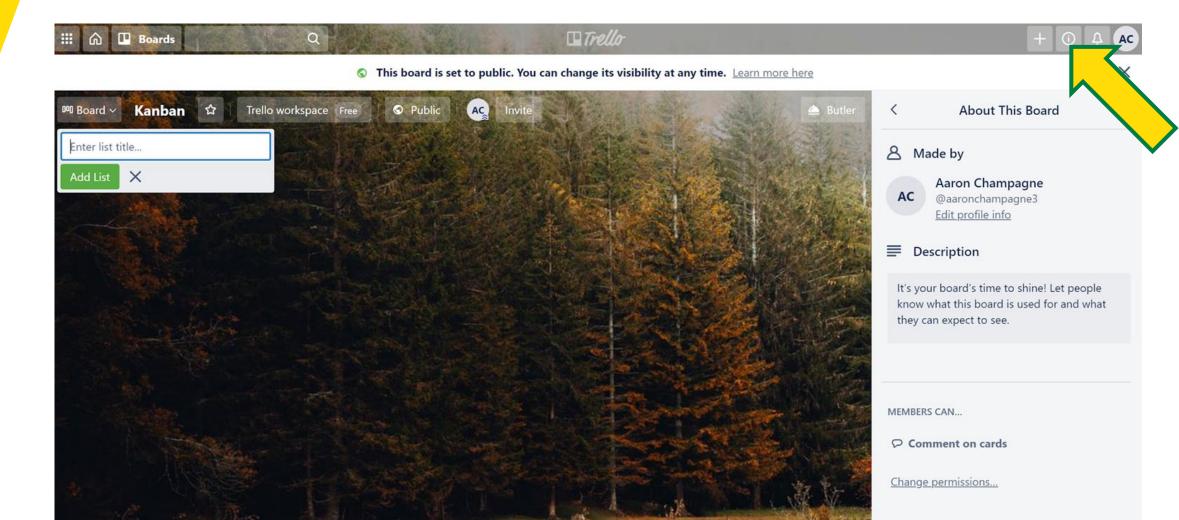


A Tour of the Board: Create Menu



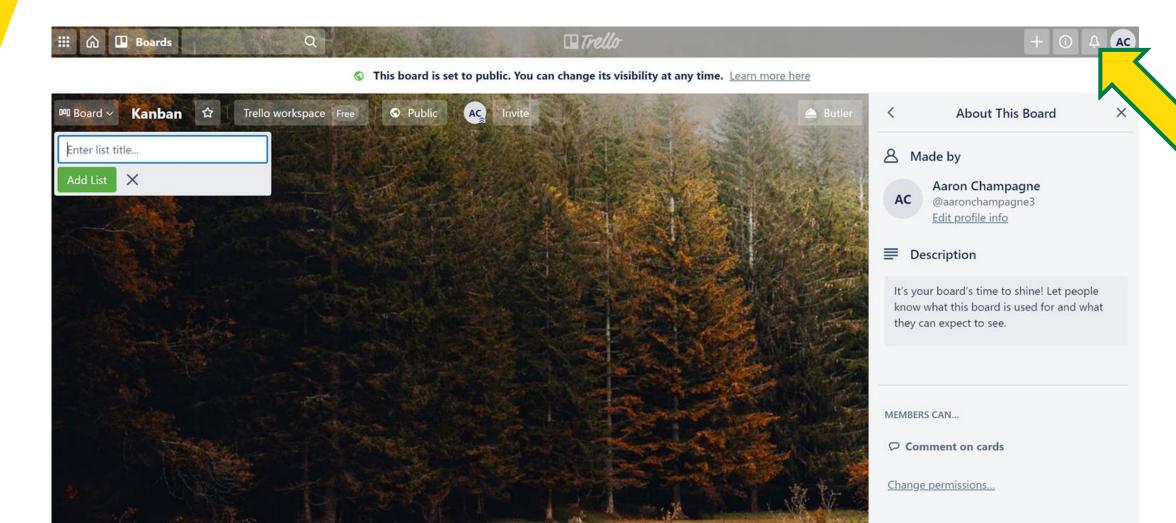


A Tour of the Board: Information



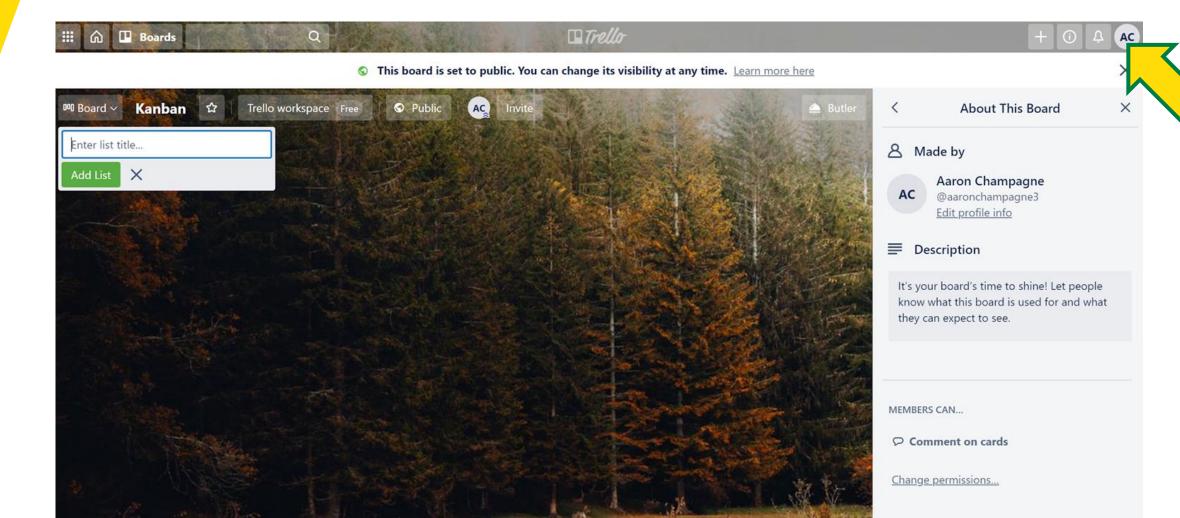


A Tour of the Board: Notifications



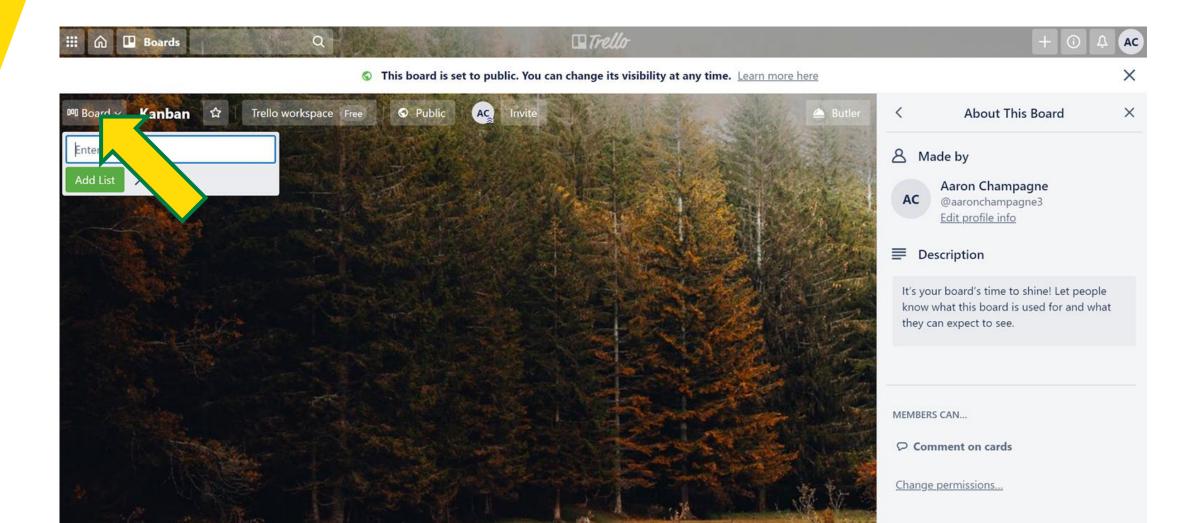


A Tour of the Board: Account



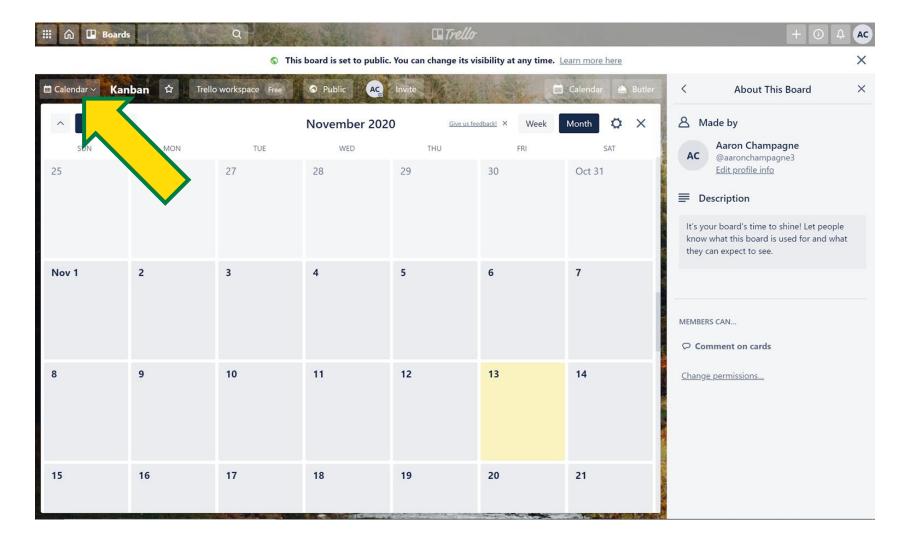


A Tour of the Board: View Modes



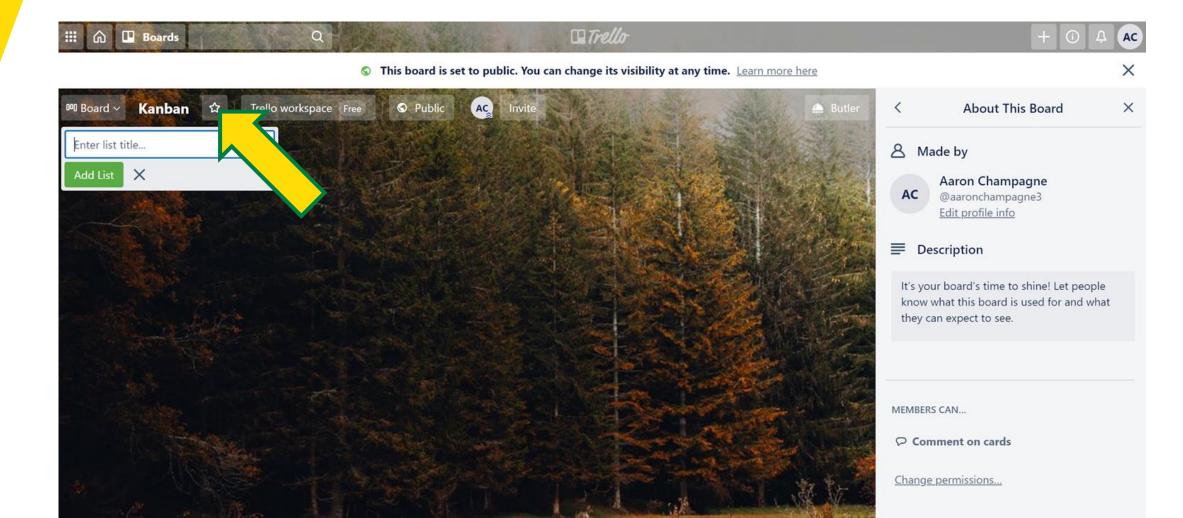


A Tour of the Board: View Modes



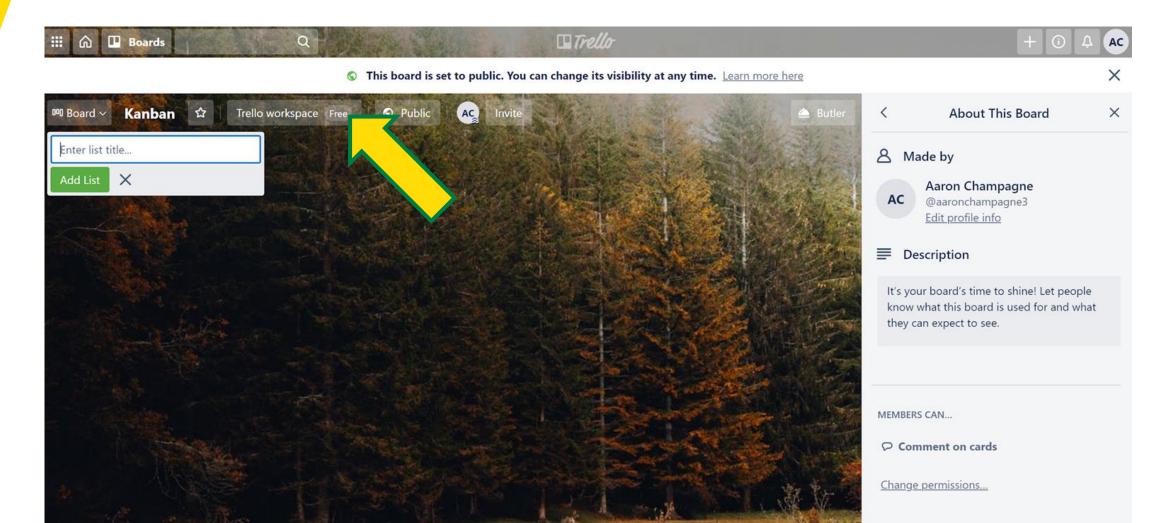


A Tour of the Board: Star



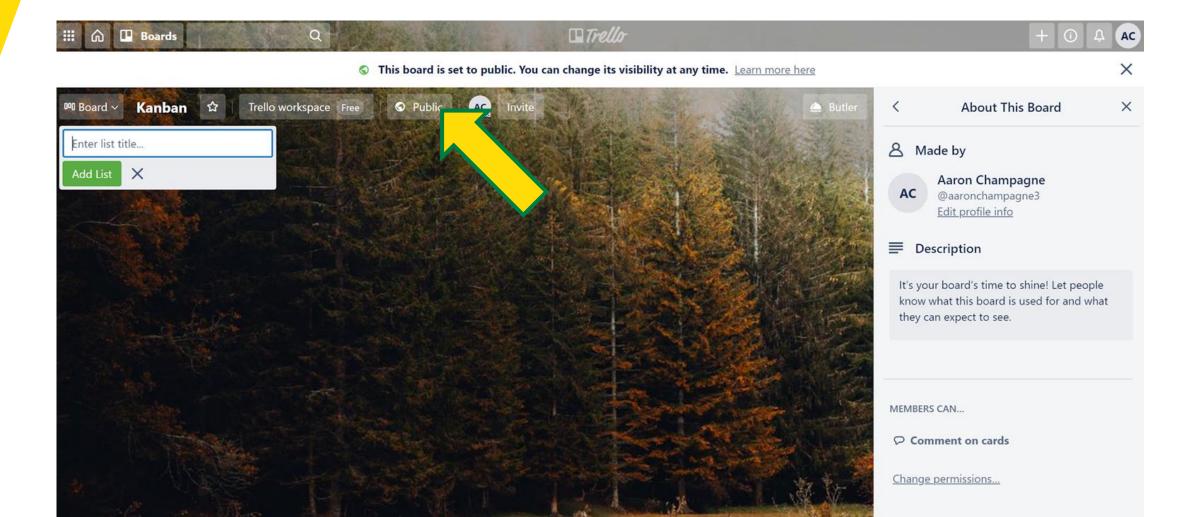


A Tour of the Board: Workspace



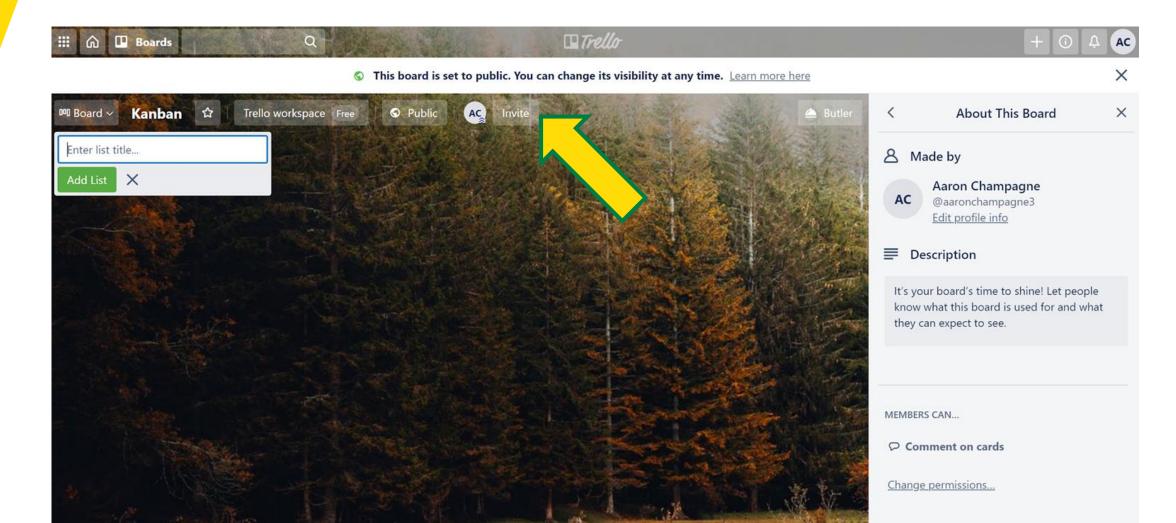


A Tour of the Board: Access Permissions



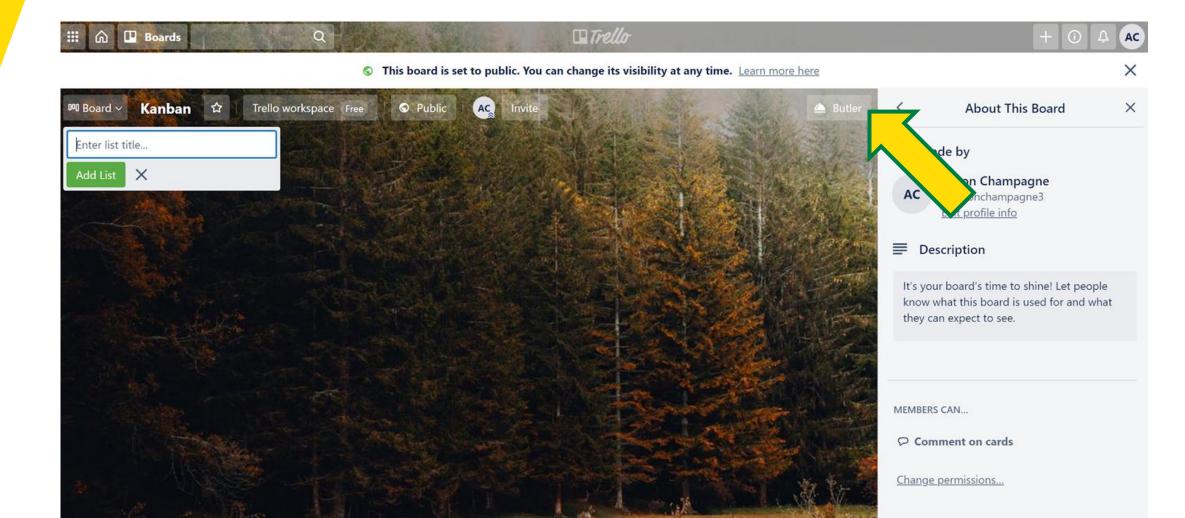


A Tour of the Board: Board Members and Invite



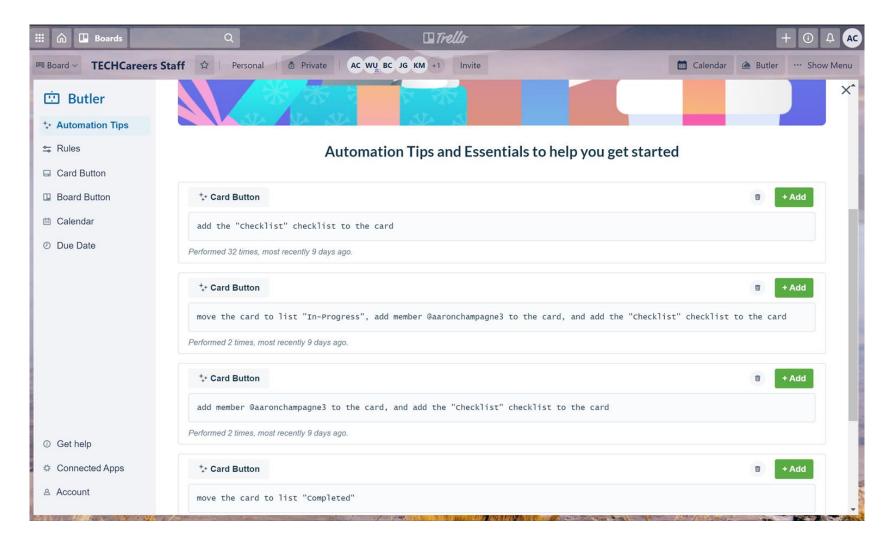


A Tour of the Board: Butler



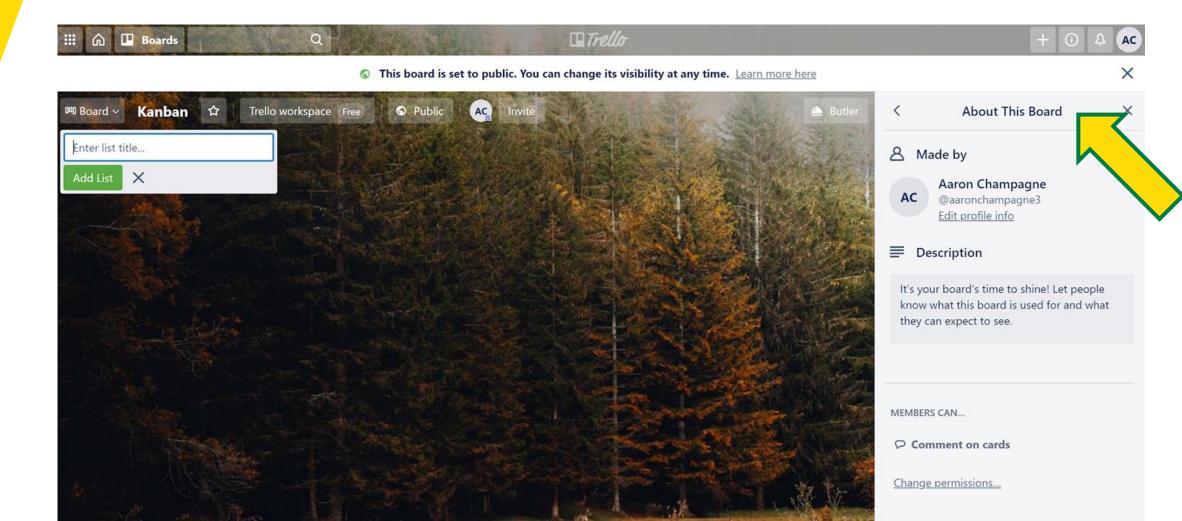


A Tour of the Board: Butler



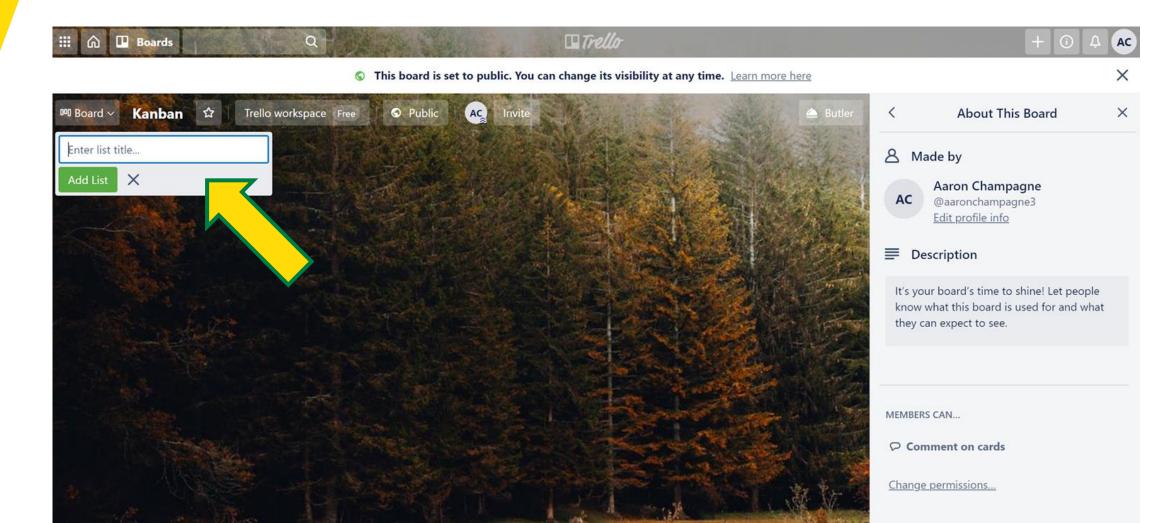


A Tour of the Board: About This Board



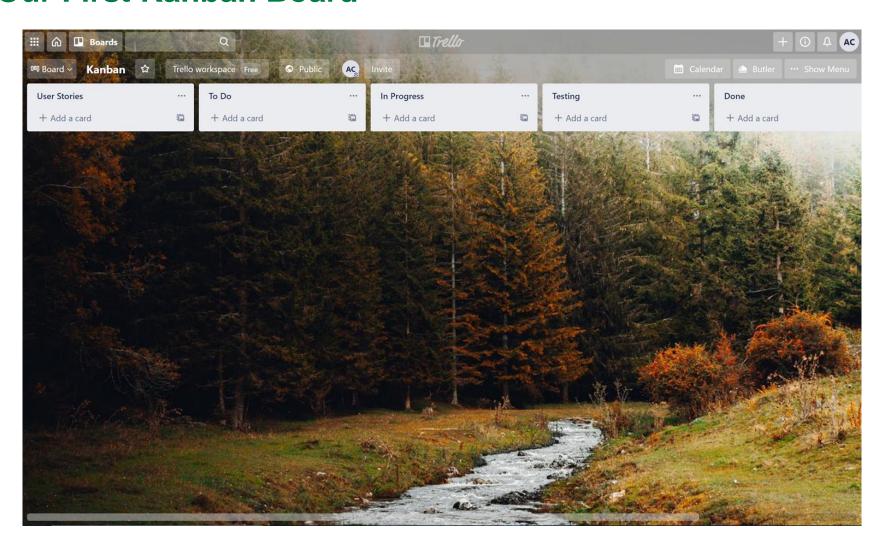


A Tour of the Board: Adding A List



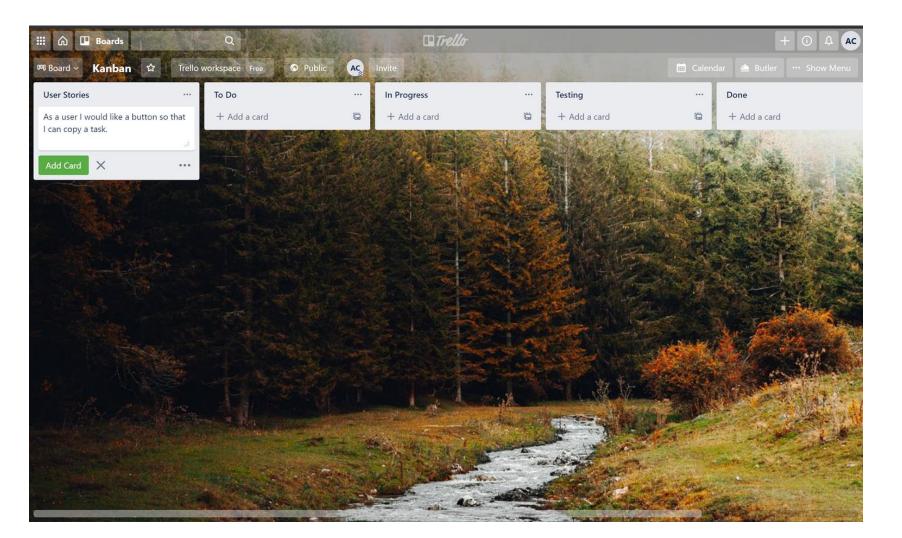


Our First Kanban Board



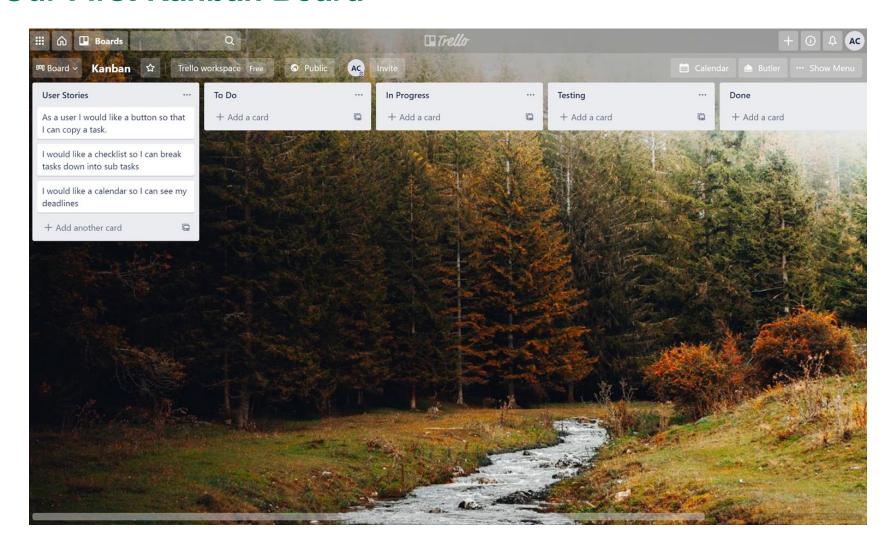


Our First Kanban Board



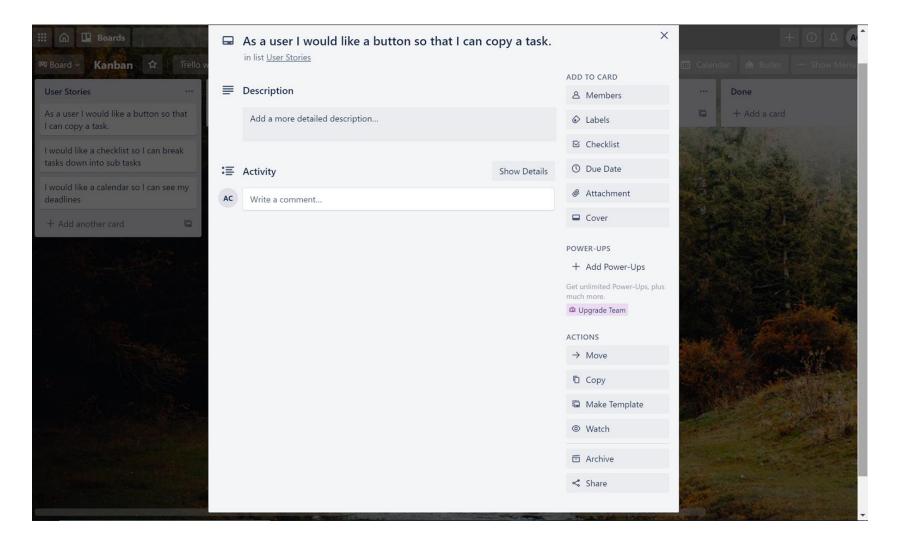


Our First Kanban Board



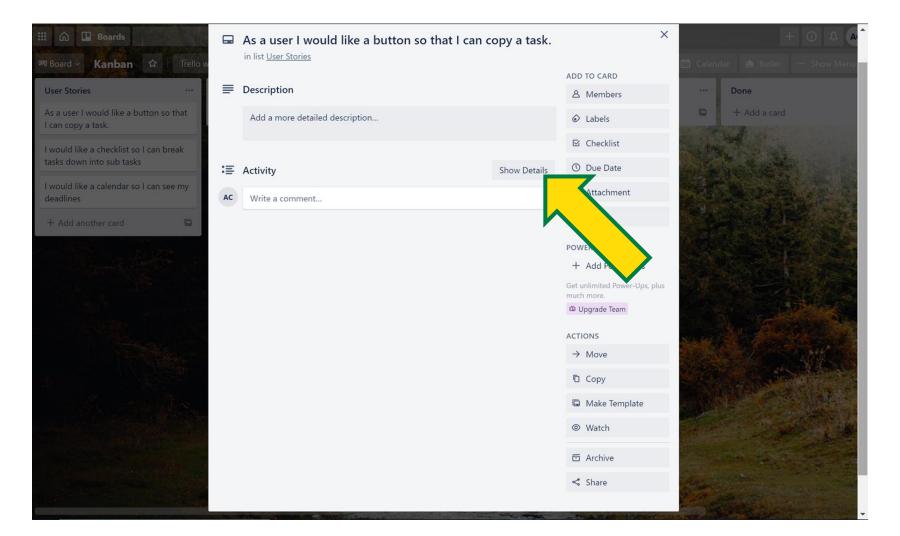


Card Features



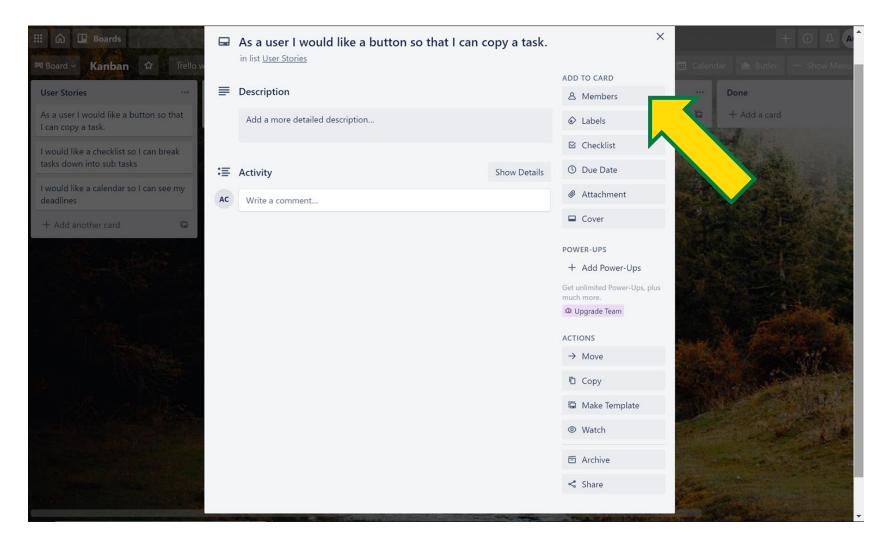


Card Features: Show Details



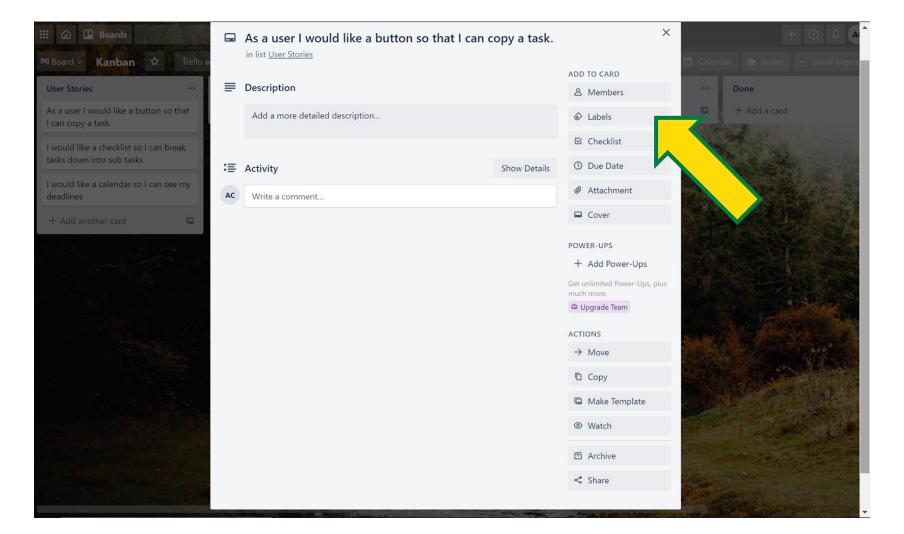


Card Features: Members



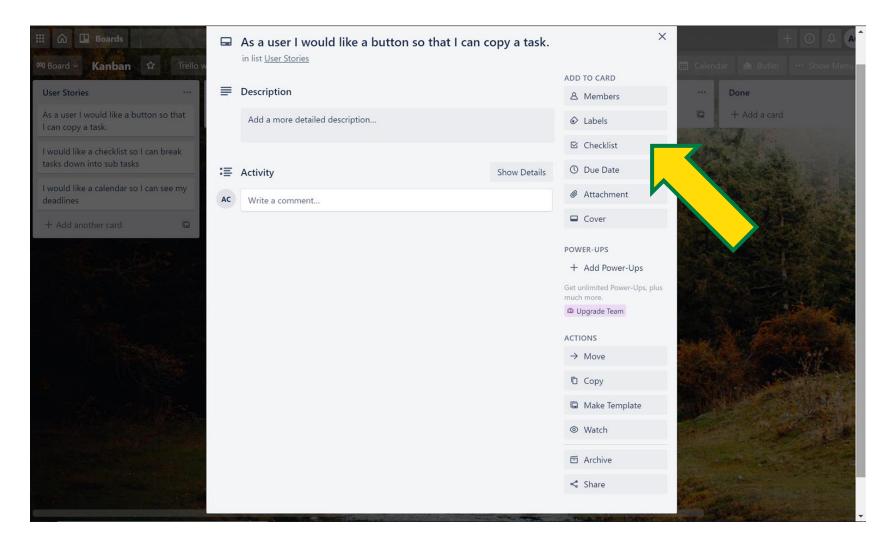


Card Features: Labels



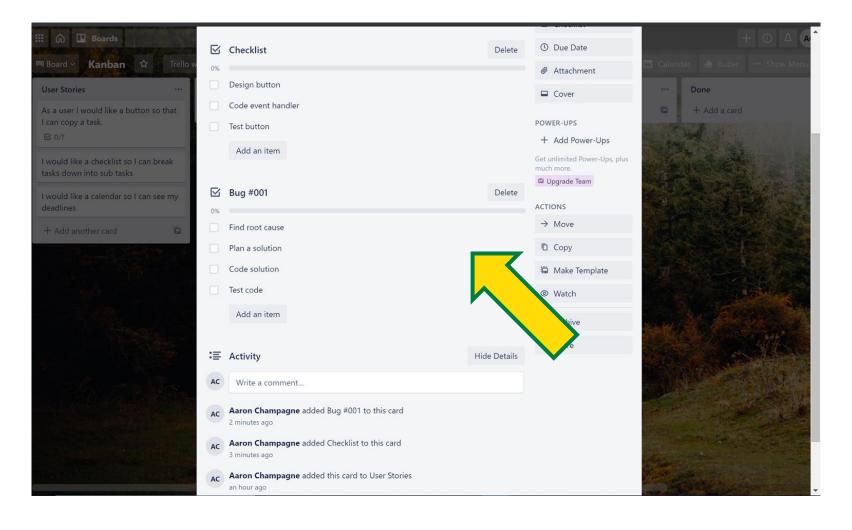


Card Features: Checklists



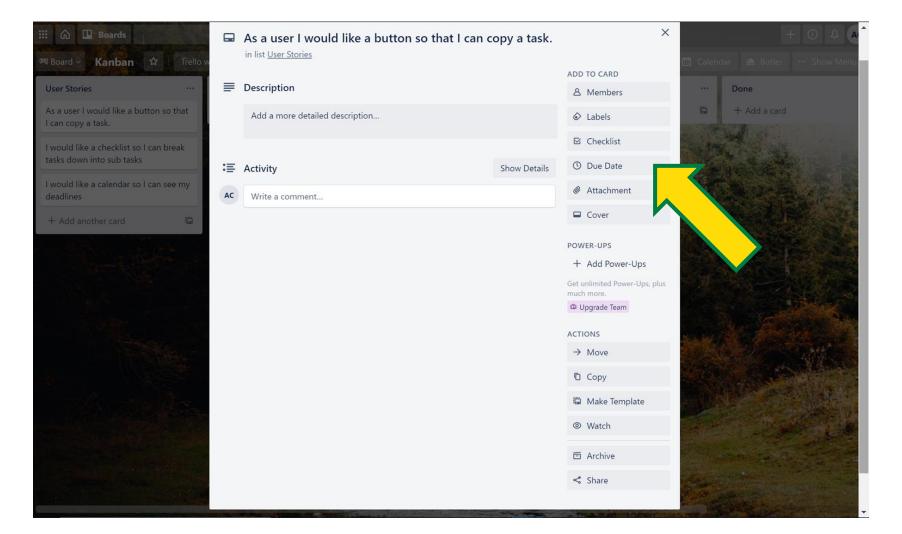


Card Features: Checklists



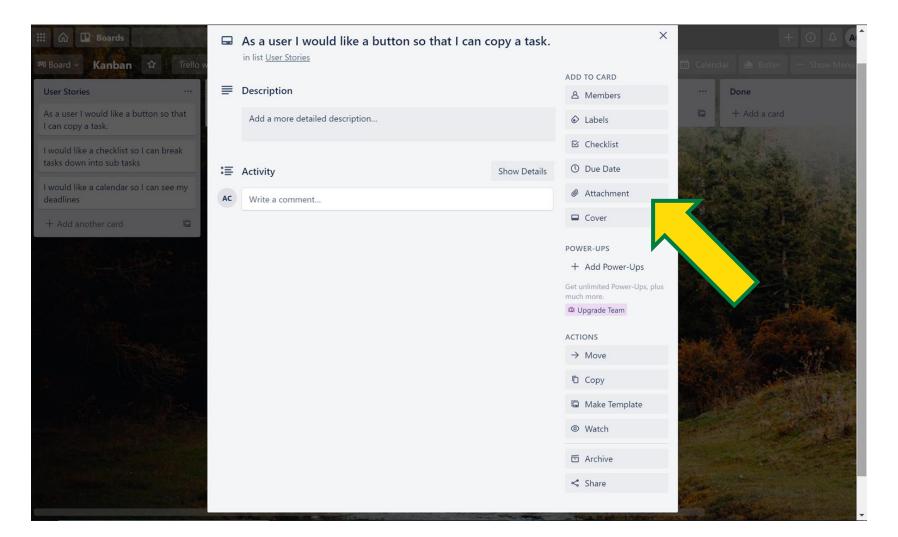


Card Features: Due dates



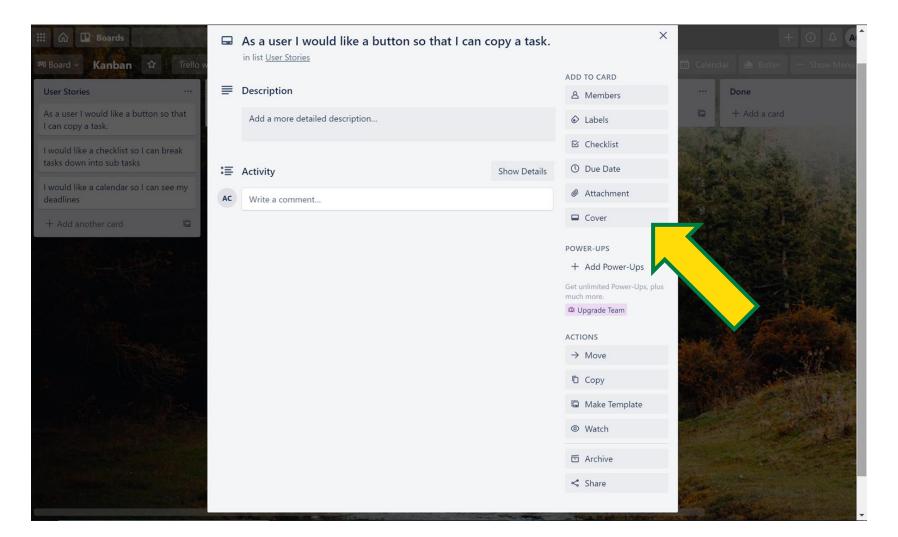


Card Features: Attachments



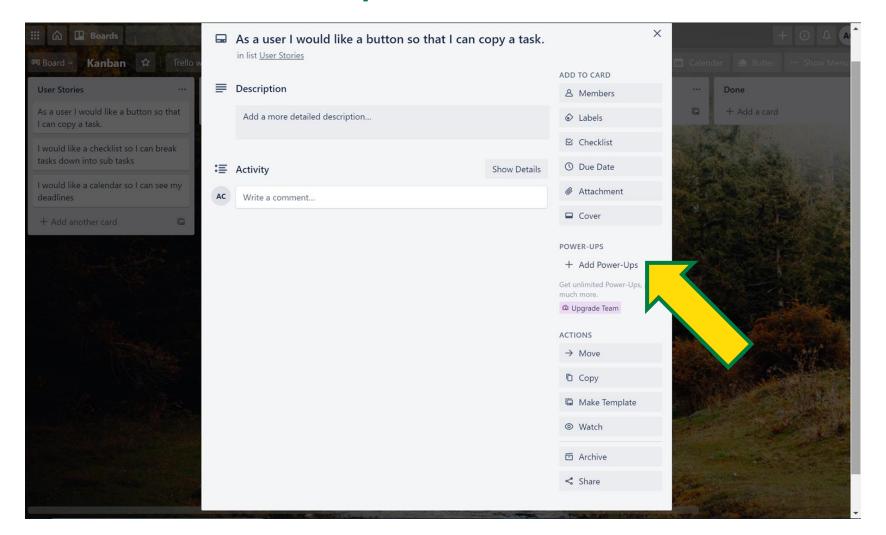


Card Features: Cover



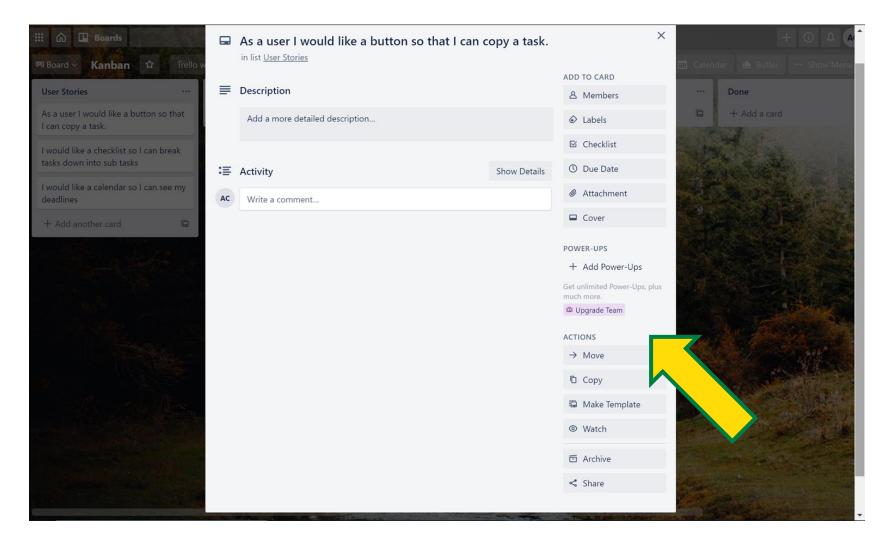


Card Features: Power-Ups





Card Features: Actions





Applying Kanban to Trello

As you can see, Trello has more features than we really need for Kanban.

Typically, User Stories don't move. They must be broken out into multiple cards that all start in the To Do column.

If the team is working on multiple stories then you can use colour-coded labels to link cards to their origin stories.



Applying Kanban to Trello

If you are working alone then all you have to do is limit yourself to one story at a time and one In Progress card at a time.

Once you have emptied out the To Do column you can break down your next story.

Doing one thing at a time is a hard habit to get into, but it is an important habit to get into - **especially once you begin dealing with bugs!**



Applying Kanban to Trello

Make good use of checklists. They will give you the flexibility you need to adapt to problems.



Recommended Reading

If you'd like to explore Trello further, check this out:

- Hammarberg, M., Sunden, J. (February 2014). Kanban in Action. Manning Publications.
- Rich, J. (October 2017). Working in the Cloud: Using Web-Based Applications and Tools to Collaborate Online. Que.

(They have a chapter on Trello, as well as chapters on other industry-standard tools!)

