

# Kanban cards overview



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The kanban card is an essential component of kanban, a work management framework which helps you visualize your work, limit work in progress (WIP), and maximize efficiency (or flow). Each kanban card represents a single work item as it moves through various stages of completion which are represented on either a physical or virtual kanban board.



To get an idea of what kanban cards are, imagine a software development team using sticky notes on a whiteboard to represent their work items. As they work on bugs and features, the team moves the sticky notes through columns labeled Prioritized, Design, Development, Testing, Blocked, and Done.

For example, when the designers have bandwidth, they pull a kanban card from Prioritized to Design, then, when the development is ready, a developer will pull a finished card from Design into Development. Kanban cards track the progression of a work item through these stages, so that the team always knows the history and status of any work item at any time.

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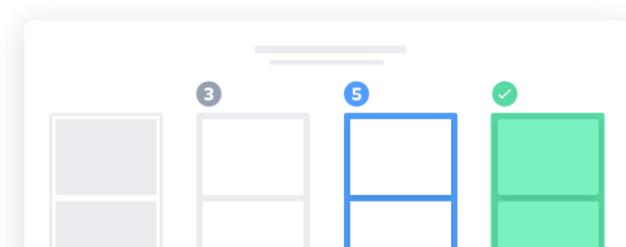
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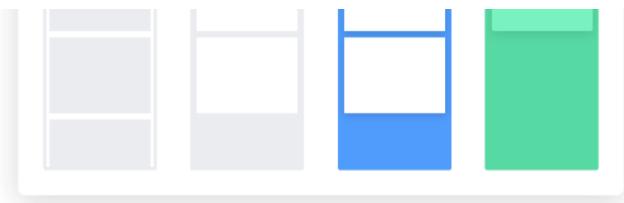
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## A brief history of kanban cards

Kanban is a Japanese word that means "visual signal" or "signal board." Kanban cards were invented in the late 1940s by Taiichi Ohno, an industrial engineer at Toyota who was looking for ways to improve Toyota's manufacturing process.

Ohno's research brought him to the aisles of an American supermarket, where he discovered something interesting. Instead of keeping its inventory fully stocked at all times, which would have taken a lot of time and effort, the supermarket only re-stocked shelves when they saw, visually, that one of its shelves was nearly empty. The store then replenished that shelf with just enough merchandise to satisfy the immediate customer demand for those products.

Ohno had a hunch that this kind of just-in-time (JIT) delivery would revolutionize the manufacturing supply chain. His first challenge was to figure out how to visualize the many manufacturing processes on the factory floor. He did this with the kanban card.

Each bin of parts had a kanban card attached to it that served as an alert signal to workers whenever stock dropped below the quantity indicated on the card. When that happened, it triggered the replenishment process, and the factory sent the empty bin with its kanban card to the supplier.

By referencing the card—which included information about the part specifications, required quantity, and expected delivery time—the supplier could quickly fill the order and send the restocked bin with its kanban card back to the factory floor, just in time to keep the production cycle going.

For nearly half a century, this production system was the "secret sauce" behind Toyota's success. When the company began sharing details about its system publicly in the 1990s, people took notice.

Thinkers in the business world distilled the Toyota Production System into a set of processes known as "lean manufacturing." As technology companies began

to boom in the 1990's management consultant David J. Anderson created the [Kanban Method](#), which brought lean techniques into the more intangible realms of knowledge work like information technology and software development.

## The purpose of kanban cards

The kanban card quickly evolved into a visual artifact that tracks a work item as it flows through a [workflow](#). At its core, the kanban card encourages teamwork by helping team members communicate and share information visually.

Kanban cards allow teams to:

- **View important details about work items at a glance.** Each kanban card typically features a brief description of a work item, along with its owner, due date, and status. The card can include other information, like pointers to source documentation or a list of issues blocking the item's progress.
- **Hand off deliverables smoothly and efficiently.** Kanban cards encourage teams to establish clear and consistent expectations for each functional area. When it comes time to pass a work item from one state to the next—say, from the planning stage to implementation—these explicit policies clarify who takes ownership, and what the next steps are.
- **Improve efficiency.** Kanban cards make it easy to keep track of lead time, which is the time it takes for a work item to go from start to finish. Kanban cards, together with a kanban board, can help teams identify bottlenecks in their workflow and streamline their process. Most teams work to decrease their lead time, which means getting work done faster!

## The benefits of kanban cards

In addition to making it easier to stay organized, kanban cards are fun to use. Let's face it—there's just something satisfying about tracking your progress in such a clear and tangible way.

Kanban cards have a number of other benefits:

### 1. Kanban cards make it easy to detect inefficiencies.

As I mentioned, because kanban cards are so visual, it's easy to tell when there's a problem with one of the steps in a work process by glancing at its kanban

board.

If a software development team consistently has twice as many cards in their Testing column as in Design and Development, teammates will quickly pick up on that visual queue. Maybe the team needs more testers, or maybe there's something wrong with the criteria of the testing stage itself.

With the kanban method, issues are immediately apparent, which makes it easier to identify and eliminate them as they crop up. This is what kanban aficionados are referring to when they talk about "continuous improvement."

## **2. Kanban cards facilitate just-in-time delivery.**

Kanban cards were developed to keep track of inventory levels and prevent materials from piling up. The manufacturing sector still uses kanban cards for that purpose, but this kind of "just-in-time" methodology is useful in other industries as well—software development, for instance. It's no better to let software features pile up in one stage of development than to let automobile parts pile up on the floor.

One way that teams avoid stagnant projects is with a [work-in-progress \(WIP\) limit](#). Teams limit the number of kanban cards that can be in any one stage of a workflow at one time. When a column is maxed out, the team works together to move those projects to completion before they can take on new work. This keeps all your work moving forward.

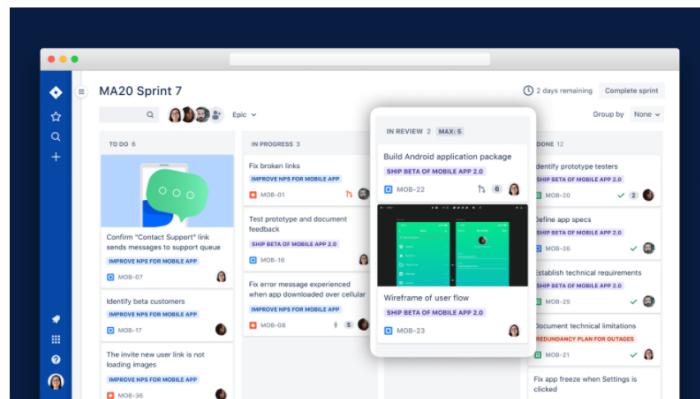
## **3. Kanban cards encourage collaboration between teams.**

One of the great things about kanban boards is that they're shared. As cards advance from column to column, they often pass from worker to worker or team to team. With kanban, even though everybody's responsible for a different part of the process, everyone is looking at the same thing, and because the system is highly visual, it's easy to get an understanding of another team's workflow by taking a glance at their columns and cards. For this reason, the kanban method is a good antidote to the silo mentality.

# **Digital kanban cards**

Physical kanban cards are fun to pick up and move around. but what if your team members don't all work

in the same room? Fortunately, there are plenty of software tools like [Jira Software](#) and [Trello](#) that make it easy for you to set up digital kanban boards and fill them with digital kanban cards.



In addition to allowing remote teams to collaborate, digital kanban cards offer several advantages over physical cards. Jira and Trello kanban cards are highly customizable. For example, you can show or hide selected information fields on the cards and add dynamic content like comments, attachments, or links to other cards. Most kanban software can be set to deliver email notifications when a card gets reassigned, is moved to a different stage in the workflow, or undergoes some other change.

Software tools also help teams better understand how efficiently they're working. Tools like [Jira Software](#) track vital metrics that a kanban team can use to improve their process. Being able to analyze lead time, WIP, and Cumulative Flow Diagrams with just a click or two is a huge advantage.

The disadvantages of going digital are subtle but important! The goal of kanban is to visualize your work. Now, instead of living on a colorful whiteboard or wall, your kanban board lives on your computer. I always like to say that, “You can’t open a new tab on a giant rolling whiteboard!”

## Common uses of kanban cards

The kanban method is versatile, and it's easy to adapt it to different fields and occupations. We've already mentioned how it's used in a few industries. In manufacturing, for example, it streamlines the restocking process for parts on the assembly line, and in retail, it can help employees track and fulfill orders. In the medical industry, kanban cards are used to keep tabs on medical supplies.

Kanban is also especially useful for customer service.

Many service teams will use service desk software like [Jira Service Management](#). These applications capture customer feedback and automatically create kanban cards that are ready for the service team to act on.

In the software industry, kanban cards are used to facilitate continuous delivery, where teams deliver small and frequent updates on a rapid release cycle, rather than letting bug fixes and features accumulate into massive and often problematic “big bang” launches.

## Getting started with kanban cards

No matter what industry you're in, kanban cards can help you organize your work items and get your job done efficiently. Hopefully, along the way, your team members will absorb the kanban values of continuous improvement, transparency, and more.

Before you get started, read our overview of [kanban](#) and [kanban boards](#). Remember that kanban encourages continuous improvement and evolutionary change, so you can always make adjustments along the way.



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As a self-proclaimed “chaos muppet” I look to agile practices and lean principles to bring order to my everyday. It's a joy of mine to share these lessons with others through the many articles, talks, and videos I make for Atlassian