

Kanbanara User Guide

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1. Introduction

Welcome to Kanbanara, a Kanban-based project management system running on the web. Kanbanara was developed from the outset as a Kanban system. Its kanban board is not a bolt-on to an existing non-agile project management tool. Kanbanara is quite well advanced, having been under constant development since early 2013.

Its name is a pun on 'Carbonara'. Should you arrive at 'Spaghetti Kanbanara', you have obviously gone wrong somewhere. Happy Kanbaning!

◇ Scrum

Arguably the most structured framework of the Agile methods, Scrum was first introduced in the 1986 as a way for "teams to work as a unit to reach a common goal," according to its inventors Hirotaka Takeuchi and Ikujiro Nonaka. Scrum takes parts of Traditional and Agile project management ideas, and combines them for a structured yet flexible way to manage projects. Like Agile, Scrum breaks projects up into tasks that are completable on their own, and then assigns each a "sprint"—two to four-week slots of time dedicated to ship that phase of the project, with daily sprints to ship some part of that phase. It's that focus on time that makes Scrum a bit more like TPM, bringing more structure to the Agile idea.

◇ Kanban

Kanban is a method for managing knowledge work which balances the demand for work to be done with the available capacity to start new work. Intangible work items are visualized to present all participants with a view of the progress of individual items, and the process from task definition to customer delivery. Team members "pull" work as they have capacity, rather than work being "pushed" into the process when requested.

Kanban in the context of software development provides a visual process-management system that aids decision-making concerning what to produce, when to produce it, and how much to produce. Although the method originated in software development and IT projects, the method is more general in that it can be applied to any professional service, where the outcome of the work is intangible rather than physical. Kanban came out of lean manufacturing techniques made famous by Japanese automotive manufacturer Toyota who used it to manage their workloads. In Japanese, the word "Kan" means "visual" and "ban" means "card".

Kanban is a lot more laid back than Scrum—there's no set time for sprints, no assigned roles outside of the product owner, and a zen-like focus on only the task at hand. You could have meetings about your overall projects, or not: it's up to your team's needs.

There are four pillars of the Kanban philosophy that can help make sure your projects get shipped. These include:

Cards (Kanban translates to “visual card”): Each task has a card that includes all relevant info about it; this makes sure everything to complete the tasks is always at hand.
Cap on work in progress: Limit how many cards are in play at once; this prevents teams from over-committing.
Continuous Flow: Move down the list of backlogs in order of importance, and make sure something’s always being worked on.
Constant improvement (otherwise known as “kaizen”): Analyze the flow to determine how efficiently you’re working, and always strive to improve it.

While developed for software development and software teams, the Kanban method (as distinct from Kanban in lean manufacturing) has been applied in many other areas of knowledge work. As a visualization and control mechanism, any repeatable and consistent workflow can be tracked, regardless of complexity or subject area. Business functions that have applied Kanban include:

Human resources and recruitment teams
Sales and marketing teams
Organizational strategy and executive leadership teams
Audit teams
Contracts to project execution process
Accounts receivable & payable processes

◇ [Kanban Strengths](#)

Like Scrum, Kanban fits best with a highly cohesive team that knows what it takes to keep the flow going—but unlike Scrum, it’s designed for teams that are self-motivated and don’t need as much management or deadlines. It’s great for those who lean toward seeing the entire project at a glance. While the two-week Scrum rule is absent and subprojects can take however long they’ve been given, you should still have an overall focus on efficiency—which should help save resources. If you’re careful to follow Kanban rules and only assign as much work as a team can handle, projects are less likely to go past deadline and team members are less likely to juggle other distractions. And because the product owner can change tasks that aren’t currently being worked on along the way, it allows for flexibility without frustration.

◇ [Kanban Weaknesses](#)

If only one of your team members has a certain in-demand skill, the individual can hold up everything. Kanban is ideal for teams that have members with overlapping skills, so that everyone can pitch in and help decrease the backlog list. It’s also best for places where time on the overall project isn’t quite as crucial; if you must ship by certain deadlines, Scrum gives you the time management structure you need.

◇ [Pull System](#)

Kanban is a pull system. This basically means that it is up to each team member to pull work items from one state to the next. In Kanbanara, the only card that is automatically pushed is an expedite one residing in a buffer state.

◇ [Scrumban](#)

A combination of the two great Lean approaches may lead to an ideal one. Scrumban combines

Scrum and Kanban and contains the best rules and practices of both methods. On one hand, it uses the sanctioned nature of Scrum to be Agile, on the other it encourages teams to constantly improve their processes along with Kanban's aim of continuous improvement (Kaizen).

Scrum works by dividing the team into small multi-functional teams, assigning certain numbers of jobs into sprints and committing the team to complete them by the end of the sprint. It is mainly optimized by looking back at previous experiences.

Kanban concentrates on visualization of workflow and putting a limit onto how much work can be completed at any given time. The prime source of improvement possibilities comes from measuring the lead time, analyzing the cumulative flow diagram and aiming to do better in the future.

The crucial difference in running a Scrum and Kanban board is in the items pull order. In Scrum - once the Sprint was planned and the tasks were placed in the queue, all the team can do is.. to pull. Meanwhile, in Kanban, after the tasks were placed in their appropriate columns, it's up to the team members which items they prefer to work on first (as long as they pull from the correct column). So, Kanban is more flexible in this respect.

The Scrumban solution promotes an increase in the system's capabilities, allowing to process more items. Monitoring the lead time is easier, thanks to balancing the team capacity versus the demand.

Since Kanban is fitting in nicely with Scrum - demanding simply more visualization and the appliance of WIP limits, there are no reasons not to try it. What can be gained, is the possibility to always be perfecting the process, and in a slightly more pleasant manner: one could say, that Scrum works much like a shock treatment, whereas Kanban applies a long-term, steady build-up of an evolutionary improvement.

2. [Limited WIP Society](#)

We are a member of the Limited WIP Society.

3. [Licence](#)

Kanbanara has been open-sourced under the GNU Affero General Public License version 3.

4. [Support Us](#)

◇ [Personal Kanban](#)

Should you wish to use Kanbanara as your own personal kanban/scrumban tool, a small donation from time to time, to assist us in keeping our servers up and running, will be very much appreciated!

5. [Contact Us](#)

Should you have an idea for how Kanbanara can be enhanced, please don't hesitate to contact us.

6. [Installation](#)

Kanbanara is not downloadable from www.kanbanara.com at present but when it becomes so, a

number of pre-requisites will need to be installed:

Pre-Requisite

Python 3.6 or later

MongoDB

The following Python libraries must also be installed:

Python Library	pip install <library_name>
CherryPy	cherrypy
Mako	mako
Pygal	pygal
PyMongo	pymongo
PyScss	pyscss

7. [Registration](#)

All users of Kanbanara must have registered first. Unless you log on as a guest, you will need to register before you can use kanbanara.

8. [Logging On](#)

You can log onto Kanbanara using the same username (email address) and password entered during registration.

◇ [Experience Kanbanara Yourself](#)

You can try out the full Kanbanara experience yourself here for personal or non-commercial use only. Don't forget to register first though!

Should you wish to try it out without first registering, please feel free to log on as username: 'guest@kanbanara.com', password: 'guest'.

9. [Logging Off](#)

The Logoff button allows you to manually log out of Kanbanara.

10. [Global Filter Bar](#)

In addition to the kanban board itself, Kanbanara has also been developed around a global filter bar that allows you to slice and dice the cards displayed on the kanban board and other visualisation pages. It allows you to select what cards actually get displayed on your kanban board, listview or standup, be they for a particular project, team member, release, iteration or card type, to mention just a subset of the available options. Should you see a number above a particular filter setting, this tells you how many cards are being filtered out as a result of this setting being set as it is.

◇ [Kanban Board](#)

This option allows you to select any one of the 44 kanban board formats available to display. The list of kanban board formats is split into two groups - full and placeholder. Those in the full list will have every applicable cards displayed in the format selected. Those in the placeholder list will only display those cards possessing the attribute selected, the rest being displayed as placeholders.

◇ [Category](#)

This option allows you to display only those cards assigned the category selected.

◇ [Hashtag](#)

This option allows you to display only those cards assigned the hashtag selected.

◇ [Type](#)

This option allows you to display only those cards of the type selected.

◇ [Team Member](#)

This option allows you to display only those cards owned or being reviewed by the team member selected.

◇ [Project](#)

This option allows you to display only those cards belonging to the project selected.

◇ [Subteam](#)

This option allows you to display only those cards belonging to the selected project subteam. Such project subteams would allow you, for example, to divide your cards by persona.

◇ [Release](#)

The filter bar makes it easy to switch between releases (and iterations), be it the previous, current or next one.

◇ [Iteration](#)

The filter bar makes it easy to switch between iterations, be it the previous, current or next one. This option must be used in conjunction with the release option.

◇ [Severity](#)

This option allows you to display only those cards of the severity selected.

◇ [Priority](#)

This option allows you to display only those cards of the priority selected.

◇ [Card](#)

This option allows you to isolate a single card together with any children it may have on the kanban board or list view.

◇ [Customer](#)

This option allows you to display only those cards related to the customer selected.

◇ [Font Size](#)

This option allows the font size on the cards to be altered from minute through normal to huge thereby allowing your kanban board to be read from the back of the room during Standup or to fit nicely on a small screen.

11. [Menu Bar](#)

Kanbanara possesses a menu bar with the following options:

Visualisations
Projects
Cards
Recent Cards
Metrics
Reports
Filters
JSON Export
Settings
Admin

12. [Kanban Board](#)

At Kanbanara's heart is its kanban board. Developed as a Kanban system from the outset. Kanbanara is centered around its kanban board, its main page being the kanban board itself. Its kanban board is not a bolt-on to an existing non-agile PM tool. This will possess the columns representing the steps and states of your workflow that cards pass through from inception to completion.

Saying Kanbanara has one Kanban board is a little simplistic as in fact the cards that get displayed in the columns can be in one of 45 different formats depending on which aspect of a card you wish to zero in on. The available card formats are Tabbed, Absenteeism, Activity, AffectsVersion, Attachments, Attributes, Avatar, Blockages, Bypass Reviews, Children, Class Of Service, Comments, Co-Owner, Co-Reviewer, Cost, Creator, CRM Cases, Customer, Days in State, Deadline, Deferrals, Difficulty, Emotions, Escalation, External Reference, FixVersion, Focus, Hashtags, Identifier, Iteration, Last Changed, Last Touched, Next Action, New, Owner Unassigned, Reassignments, Recidivism, Recurring, Release, Reopened, Resolution, Reviewer, Scope Creep, Search, Severity, Similar, Status, Subteam, Test Cases, Time, Today, Velocity, Votes, Yesterday and Internals.

All outstanding cards for a release, regardless of owner, can be seen on the single kanban board.

Tabbed dialog kanban board defaults to showing Status tab allowing you to clearly see the latest status for a card.

Individual card can be isolated on the kanban board, showing just itself and any children it may possess.

Ability to see the corresponding kanban board for anyone else on the team.

Where a card is missing an attribute so as to fail to display any useful information on a particular kanban board format, the card will still appear but as a placeholder, thereby reminding the team member to not forget about such a card!

◇ [Tabbed Kanban Board](#)

The tabbed kanban board format shows each card with a number of tabs, thereby allowing each card to contain much more information than in other formats.

◇ [Absenteeism Kanban Board](#)

The absenteeism kanban board format alerts you to whether anyone on your team will be absent and unable, say, to review a card you are waiting for.

◇ [Activity Kanban Board](#)

The Activity Kanban Board singles out those cards having been updated in the preceding 24 hours.

◇ [AffectsVersion Kanban Board](#)

The AffectsVersion Kanban Board singles out those cards having had its affectsversion attribute set.

◇ [Attachments Kanban Board](#)

The Attachments Kanban Board singles out those cards possessing attachments.

◇ [Attributes Kanban Board](#)

The attributes kanban board shows all the set attributes for each card.

◇ [Avatar Kanban Board](#)

The avatar kanban board shows the owner, co-owner, reviewer and co-reviewer avatars for each card.

◇ [Blockages Kanban Board](#)

The Blockages Kanban Board singles out those cards which are currently blocked.

◇ [Bypass Reviews Kanban Board](#)

The Bypass Reviews Kanban Board singles out those cards that are set to bypass the testing state(s).

◇ [Children Kanban Board](#)

The Children Kanban Board singles out those cards possessing children.

◇ [Class Of Service Kanban Board](#)

The Class of Service Kanban Board singles out those cards having their class of service attribute set.

◇ [Comments Kanban Board](#)

TO BE COMPLETED

◇ [Co-Owner Kanban Board](#)

The Co-Owner Kanban Board singles out those cards having had a co-owner assigned.

◇ [Co-Reviewer Kanban Board](#)

The Co-Reviewer Kanban Board singles out those cards having had a co-reviewer assigned.

◇ [Cost Kanban Board](#)

TO BE COMPLETED

◇ [Creator Kanban Board](#)

TO BE COMPLETED

◇ [CRM Cases Kanban Board](#)

The CRM Cases Kanban Board singles out those cards having had an CRM case number assigned.

◇ [Custom Attributes Kanban Board](#)

The Custom Attributes Kanban Board shows just a card's custom attributes.

◇ [Customer Kanban Board](#)

The Customer Kanban Board singles out those cards having had a customer assigned.

◇ [Days in State Kanban Board](#)

The Days in State Kanban Board highlights the number of days each card has remained in its current state.

◇ [Deadline Kanban Board](#)

The Deadline Kanban Board singles out those cards to which a deadline has been set.

◇ [Deferrals Kanban Board](#)

The Deferrals Kanban Board singles out those cards that have been deferred, the reason as to why and on which date (if set) when they will be undeferred. This deferral mechanism also doubles for placing a card 'on hold'.

◇ [Difficulty Kanban Board](#)

The Difficulty Kanban Board highlights the difficulty rating assigned to each card.

◇ [Emotions Kanban Board](#)

The Emotions Kanban Board singles out those cards having had an emotion assigned.

◇ [Escalation Kanban Board](#)

The Escalation Kanban Board singles out those cards having had an escalation assigned.

◇ [External Reference Kanban Board](#)

The External Reference Kanban Board singles out those cards having had an external reference assigned.

◇ [FixVersion Kanban Board](#)

The FixVersion Kanban Board singles out those cards having had a fixversion assigned.

◇ [Focus Kanban Board](#)

The Focus Kanban Board shows which cards are currently in focus and at what date a card was last in focus.

◇ [Hashtags Kanban Board](#)

The Hashtags Kanban Board singles out those cards having had one or more hashtags assigned.

◇ [Identifier Kanban Board](#)

The Identifier Kanban Board highlights the identifier automatically assigned to each card.

◇ [Iteration Kanban Board](#)

The Iteration Kanban Board singles out those cards assigned to an iteration.

◇ [Last Changed Kanban Board](#)

The Last Changed Kanban Board highlights the date each card was last changed.

◇ [Last Touched Kanban Board](#)

The Last Touched Kanban Board highlights the date each card was last touched.

◇ [Next Action Kanban Board](#)

The Next Action Kanban Board singles out those cards to which a next action date has been set, showing placeholders for the rest.

◇ [New Kanban Board](#)

TO BE COMPLETED

◇ [Owner Unassigned Kanban Board](#)

The Owner Unassigned Kanban Board singles out those cards still requiring an owner to be assigned.

◇ [Reassignments Kanban Board](#)

TO BE COMPLETED

◇ [Recidivism Kanban Board](#)

TO BE COMPLETED

◇ [Recurring Kanban Board](#)

◇ [Release Kanban Board](#)

The Release Kanban Board singles out those cards assigned to a release.

◇ [Reopened Kanban Board](#)

The Reopened Kanban Board singles out those cards which have been reopened after being closed.

◇ [Resolution Kanban Board](#)

TO BE COMPLETED

◇ [Reviewer Kanban Board](#)

The Reviewer Kanban Board singles out those cards still requiring a reviewer to be assigned or those bypassing the review stage altogether, otherwise it just displays the name of the reviewer.

◇ [Scope Creep Kanban Board](#)

◇ [Search Kanban Board](#)

◇ [Severity Kanban Board](#)

The Severity Kanban Board highlights the severity to each card.

- ◇ [Similar Kanban Board](#)

TO BE COMPLETED

- ◇ [Status Kanban Board](#)

TO BE COMPLETED

- ◇ [Subteam Kanban Board](#)

- ◇ [Test Cases Kanban Board](#)

TO BE COMPLETED

- ◇ [Time Kanban Board](#)

TO BE COMPLETED

- ◇ [Today Kanban Board](#)

The Today Kanban Board singles out those cards which you need to deal with today.

- ◇ [Velocity Kanban Board](#)

TO BE COMPLETED

- ◇ [Votes Kanban Board](#)

- ◇ [Yesterday Kanban Board](#)

The Yesterday Kanban Board singles out those cards which you changed or touched yesterday.

- ◇ [Internals Kanban Board](#)

The Internals Kanban Board shows all the attributes of each card, including their internal ones.

- ◇ [States Kanban Board](#)

The States Kanban Board is only utilised by the 'Disowned by Workflow' column.

13. [Projects](#)

Kanbanara supports multiple and fully isolated projects. A logged-on user will only see those projects they created, were invited to join or are a member of.

The filter bar allows you to easily switch between projects and to display the cards for all your projects on a single kanban board or one project at a time.

Supports multiple and fully isolated projects.

Users only see those projects they are a member of.

Only a project manager or deputy project manager can update a project's settings.

Kanbanara is SAAS-ready in supporting fully isolated projects. An individual user can be a team member in any number of projects and they will only ever be able to see those projects which they created or to which they have been invited.

Only a project manager or deputy project manager can update a project's settings.

◇ [Base](#)

This tab allows you to declare this instance of your project as a master, a slave or standalone.

◇ [Custom States](#)

The Custom States tab allows you to add one or more user-defined or custom states each mapped onto one of the built-in metastates.

◇ [Workflow](#)

The Workflow tab allows you to set up the steps and columns required in your workflow.

Each step can contain a main column, a counterpart column (think of this as a second main column) and a buffer column. A step can consist of:

- A Main column
- A Buffer column
- Main and Counterpart columns
- Main and Buffer columns
- Main, Counterpart and Buffer columns

For each step a display name must be assigned.

To each column must be assigned its display name, centric (e.g. owner or reviewer) and its state (custom or metastate)

Please feel free to leave one or more steps empty should you feel your workflow may be expanded in the future.

◇ [Releases and Iterations](#)

This tab allows you to add releases and iterations to your project.

◇ [Roadmap](#)

The Roadmap page features a column for each up and coming release in your project. The cards associated with each release may be dragged out of one release and dropped on another as re-

quired.

◇ [Team Members](#)

This tab allows you to invite new members to join your project.

◇ [Global Work In Progress \(WIP\)](#)

This tab allows you to set the global minimum and maximum Work In Progress (WIP) limits for your project.

Ticking the 'Enforce WIP Limits' option will force such global WIP limits to be adhered to [Not yet fully implemented]

◇ [Subteams](#)

This tab allows you to define a subteam for your project. Such project subteams would allow you, for example, to divide your cards by persona.

◇ [Classes of Service](#)

◇ [Estimate/Actual Cost](#)

◇ [Estimate/Actual Time](#)

◇ [Categories](#)

◇ [Alerts](#)

◇ [Entry/Exit Criteria](#)

This tab allows you to add exit criteria and entry criteria to a column/state.

◇ [Synchronisation](#)

If this instance of your project has been declared as a slave, this tab allows you to enter the host and port details of the master with which it will need to synchronise.

◇ [JSON](#)

This tab allows you to display the project's settings in JSON format.

14. [Roles](#)

The settings for a given project can be restricted by allocating one of four roles - project manager, deputy project manager, team member or guest - to a given team member.

15. [Cards](#)

Each card represents a work item. It doesn't matter if the work item is a task or a user story.

Cards hierarchically chained together.

Card context retained due to grandparent and parent title being displayed as required.

Details of a particular card can be reached via unique URL based on card ID (i.e. ABC-12345), thereby allowing direct link.

16. Card Types

A card placed on the kanban board can be of any one of nine types - epic, feature, story, enhancement, defect, task, test, bug or transient.

All cards or just those of a particular type can be shown on the kanban board.

Such cards can be chained together with a simple parent-child relationship. Although a parent can have many children, a child can have only one parent.

◇ Epic Type

TO BE COMPLETED

◇ Feature Type

TO BE COMPLETED

◇ Story Type

TO BE COMPLETED

◇ Enhancement Type

A card of type 'enhancement' is like a story but specifically for an enhancement.

◇ Defect Type

A card of type 'defect' is like a story but specifically for a defect.

◇ Task Type

A card of type 'task' would be a child to a story, enhancement or defect type card.

◇ Test Type

TO BE COMPLETED

◇ Bug Type

TO BE COMPLETED

17. [Hidden Cards](#)

Should you have too many cards on your kanban board, Kanbanara allows you to hide them for up to six days into the future. Just set the HiddenUntil attribute and the card will disappear until the allotted time.

18. [Future Projections](#)

In addition to today's kanban board, Kanbanara allows you to project into the future and see the kanban board of tomorrow and five further days into the future. Any hidden cards destined to have reappeared by then will be shown as such. Any cards deferred or blocked until one such date will be shown normally rather than in the deferred or blocked section.

19. [Continuous Delivery](#)

Although Kanban was primarily developed for continuous delivery, Kanbanara has borrowed sprints, implemented as releases and iterations, from scrum.

Each project may support multiple releases.

A release may consist of multiple iterations.

Easy to switch between previous, current and next release.

◇ [Release](#)

A project can support multiple releases.

◇ [Iteration](#)

A release may consist of multiple iterations.

20. [Workflow](#)

Within Kanbanara, a project's workflow is completely dynamic. It can range from something as simple as "To Do", "Doing" and "Done" upto a workflow consisting of 12 steps, each step consisting of a main column, a counterpart column and a buffer column.

A step can be thought of as a combination of upto three state columns, Main and Counterpart holding cards waiting to be processed and the Buffer, holding processed cards waiting to be moved onto the next step. A step can be given a name such as "Backlog", "Specify", "Implement" or "Validate". Each state column within the step can be given a name as well as whether it is owner- or reviewer-centric. A state column's centric setting will dictate how cards are handled when they reach the review/testing stage(s).

21. [Metastates](#)

Kanbanara possesses 23 built-in metastates - untriaged, triaged, backlog, defined, analysis, analysispeerreview, analysed, design, designpeerreview, designed, development, developmentpeerreview, developed, unittesting, unittestingaccepted, integrationtesting, integrationtestingaccepted, systemtesting, systemtestingaccepted, acceptance testing, acceptance testing accepted, completed and closed. Any custom state you define and use in your workflow must be mapped onto the most appropriate metastate.

22. [States](#)

At Kanbanara's heart is its kanban board. The states in your workflow can be altered at any time to suit your particular needs, even after your kanban board is fully populated with cards.

By default, the cards on your kanban board will be in one of the states defined in your workflow at any given time, the default being the 'backlog' metastate for a new card and the 'defined' metastate for a reopened one:

Allows a subset of consecutive states to be shown allowing you, for example, to hide Backlog and Closed as required.

Even though you have the full width of the screen at your disposal, the filter bar additionally allows you to select a range of states to be displayed, allowing you, for example, to hide Backlog and Closed as required, thus giving more room to those columns containing cards you are actually interested in.

When a card is in a Testing state, its owner will only get a placeholder card to indicate another is reviewing it. Reviewer role come to the fore only in a Testing column.

User can set a time period for the number of cards in closed state they want displayed.

If a card has both an owner and a co-owner or both a reviewer and a co-reviewer, then setting the state must be done by both team members before the card can be automatically moved to the next state. Should a card have been moved to the next state by one team member only, the card may then appear in the column's waiting section depending on whose kanban board you are currently viewing.

◇ [Default Steps and Columns](#)

By Default, the workflow in Kanbanara consists of eleven steps - Planning, Backlog, Specify, Design, Implement, Validation - Unit, Validation - Integration, Validation - System, Validation - Acceptance, Completed and Closed.

The Planning step consists of a main column, Untriaged, and a counterpart column, Triaged.

The Backlog step consists of a main column, Backlog, and a buffer column, Defined.

The Specify step consists of a main column, Analysis, a counterpart column, Analysis Peer Review, and a buffer column, Analysed.

The Design step consists of a main column, Design, a counterpart column, Design Peer Review, and a buffer column, Designed.

The Implement step consists of a main column, Development, a counterpart column, Development

Peer Review, and a buffer column, Developed.

The Validate - Unit step consists of a main column, Unit Testing, and a buffer column, Unit Testing Accepted.

The Validate - Integration step consists of a main column, Integration Testing, and a buffer column, Integration Testing Accepted.

The Validate - System step consists of a main column, System Testing, and a buffer column, System Testing Accepted.

The Validate - Acceptance step consists of a main column, Acceptance Testing, and a buffer column, Acceptance Testing Accepted.

The Completion step consists of a main column, Completed and a counterpart column, Closed.

◇ [Backlog Column](#)

In the Backlog column are displayed those cards in your backlog. Normally, such cards have yet to be assigned a release or iteration.

◇ [Defined Column](#)

In the Defined column are displayed any cards duly defined to be worked on next, normally for a particular release (and iteration) and are awaiting their move into the Analysis state when Work-In-Progress limits allow. In Scrum terms, you can think of this column as the Sprint Backlog. Defined is a buffer state.

◇ [Analysis Column](#)

In the Analysis column are displayed any cards currently being analysed. This state is the first half of the specify step.

◇ [Analysed Column](#)

In the Analysed column are displayed any cards that have been analysed and are awaiting their move into the Development state when Work-In-Progress limits allow. This state is the second half of the specify step. Analysed is a buffer state.

◇ [Development Column](#)

This state is the first half of the implement step.

◇ [Developed Column](#)

This state is the second half of the implement step. Developed is a buffer state.

◇ [Testing Column](#)

When assigning a reviewer to a card, the reviewer's names are placed in order of least busy to most busy, with a card count after their name, thereby allowing the least busy team member to be more likely chosen. When a card reaches the Testing state, the owner and reviewer effectively

switch roles, with the reviewer requested to work on the card and the owner a passive observer. As a reviewer, you can see what work is heading your way as such cards appear greyed out in the states preceding Testing. This state is the first half of the validate step.

◇ [Accepted Column](#)

This state is the second half of the validate step.

◇ [Closed Column](#)

As all cards will eventually end up in the closed state one way or another, unless of course deleted, the number of cards displayed can be restricted to those cards closed in the last five years right down to those closed within the last hour.

◇ [Why No 'Blocked' State?](#)

Kanbanara has no need for a 'Blocked' state as a card can be blocked either by its children or via the setting of a blocked attribute on a card itself. Any cards thus blocked automatically appear in a special blocked section in the appropriate column on the kanban board, thereby allowing you, for example, to have a card in both 'Development' and 'Blocked' at the same time.

23. [Card Attributes](#)

Many attributes can be assigned to each card:

_id
Actual Cost
Actual Cost History
Actual Time
Actual Time History
Affects Version
After
Before
Blocked
Blocked Until
Blocks Parent
Broadcast
Bypass Review
Category
Class of Service
Comments
Co-Owner
Co-Reviewer
Creator
CRM Case
Customer
Deadline

Deferred
Deferred Until
Depends Upon
Description
Difficulty
Emotion
Escalation
Estimated Cost
Estimated Cost History
Estimated Time
Estimated Time History
Expedite
External Hyperlink
External Reference
Fix Version
Focus History
Hashtags
HiddenUntil
Hierarchy
ID
Iteration
Last Changed
Last Changed By
Last Touched
Last Touched By
Mode
Next Action
Notes
Owner
Parent
Priority
Project
Reassign Co-Owner
Reassign Co-Reviewer
Reassign Owner
Reassign Reviewer
Recurring
Release
Resolution
Reviewer
Root Cause Analysis
Severity
Start By
State

State History
Status
Stuck
Subteam
Tags
Test Cases
Title
Type
Votes

24. [Custom Attributes](#)

Custom attributes can be added to all cards in a particular project. Just define the custom attributes within the project itself and every time you add, update or view a card in that project, such custom attributes will appear and be editable.

25. [Add Card](#)

The Add Card page allows you to add a card of type epic, feature, story, enhancement or defect to the Kanban board.

26. [Update Card](#)

The Update Card page allows you to edit any existing card regardless of its type.

27. [Routine Card Manager](#)

Kanbanara possesses a routine card manager that allows the creation of routine cards to be automated.

28. [Owners and Reviewers](#)

Each card can be assigned up to two owners and up to two reviewers, thereby assisting with either pair programming or pseudo team members such as the current incumbent of the service support liaison role.

Supports Owner and Co-Owner, thereby allowing a card to be owned by the current Service Support person and co-owned by one of your fellow team members.

When a card is in a Testing state, its owner will only get a placeholder card to indicate another is reviewing it. Reviewer role come to the fore only in a Testing column.

◇ [Owners](#)

Each card can be assigned up to two owners and up to two reviewers, thereby assisting with either pair programming or pseudo team members such as the current incumbent of the service support liaison role.

With the ability to add an 'Support Person' as a Team Member and as an owner of a card, the handover from one real Support person to the next will be greatly simplified.

◇ Reviewers

Up to two reviewers can be assigned to a card.

Each card can be assigned up to two owners and up to two reviewers, thereby assisting with either pair programming or pseudo team members such as the current incumbent of the service support liason role.

29. Work In Progress

Minimum and maximum Work In Progress (WIP) limits may be globally set per project or locally by an individual user. The WIP limits set by an end user take priority over those set globally on a project.

Global Work-In-Progress limits can be assigned to a project, easily overridden by personal ones should a user wish. Buffer states have special significance in Kanban. Should your Work-In-Progress limit for a particular state be reached, the system may automatically hold a card in a buffer state until spare capacity allows it to be moved forward. Your personal Work-In-Progress limits can be easily amended via the buttons at the top of each kanban board state column, either being set to a specific value or to unlimited. Should a state's Work-In-Progress limit be reached, a message to that effect will be shown between the cards at the appropriate point.

Ticking the 'Enforce WIP Limits' option will force such global or personal WIP limits to be adhered to [Not yet fully implemented].

30. Team Members

New team members must be invited to join team by existing team members.

Ability to see the corresponding kanban board for anyone else on your team.

With the ability to add a pseudo user as a Team Member and as an owner of a card, the handover from one real Service Support person to the next will be greatly simplified.

Your own avatar can be uploaded.

31. Priorities and Severities

Kanbanara supports both priority and severity, each to four levels, thus giving one of sixteen levels of urgency and importance to an individual card ranging from critical-critical, through high and medium, down to low-low.

The most important cards in any state, those with critical or high priority, are automatically shown towards the top of the kanban board. Within each block grouping cards together of the same priority, such cards are additionally sorted by severity with the critical and high ones again towards the top.

◇ Priorities

A card will be assigned one of four priorities - Critical, High, Medium or Low - at any given time, the default being Medium.

The most important cards in any state, those with critical or high priority, are automatically shown towards the top of the kanban board. Within each block grouping cards together of the same priority, such cards are additionally sorted by severity with the critical and high ones again towards the top.

Higher priority cards are shown towards the top of each state column.

Coupled with the assignment of a severity, this allows you to sort your cards into one of sixteen priority-severity pairs.

◇ [Severities](#)

A card will be assigned one of four severities - Critical, High, Medium or Low - at any given time, the default being Medium.

The most important cards in any state, those with critical or high priority, are automatically shown towards the top of the kanban board. Within each block grouping cards together of the same priority, such cards are additionally sorted by severity with the critical and high ones again towards the top.

Coupled with the assignment of a priority, this allows you to sort your cards into one of sixteen priority-severity pairs.

32. [CRM Case and Escalation](#)

To each card can be assigned a Customer Relationship Management (CRM) case number and/or escalation.

33. [Push or Pull](#)

Card can't be moved to a new state if its children forbid it.

34. [Drag And Drop](#)

A card may be dragged and dropped from one state to another on the kanban board, even backwards if deemed necessary. Depending on where a card is dropped, the priority may be altered as well. Dropping on a particular priority section in the new state will alter the priority accordingly. Dropping on the new state's header will preserve the priority as is.

Drag and drop is fully implemented on both the kanban board and the backlog sorter, allowing you to not only drag a card from one state to another, but also change its priority, and in the case of the backlog sorter, a card's severity also, as required.

35. [Card Menu](#)

Each card on the kanban board possesses a popup menu that allows you to do the following:

- * View - Allows all the attributes of an individual card to be viewed.
- * Update - Allows an individual card to be updated.
- * Hierarchy

- * Execute Rules - Trigger all the rules associated with a particular card.
- * Give Focus - Declares that an individual card has your undivided attention.
- * Touch - Allows you to 'touch' a card thus indicating to others that you have not forgotten about it.
- * Add Substory - Allows a sub-story to be added to a story card.
- * Add Task - Allows a task to be added to a card.
- * Add Test - Allows a test to be added to a card.
- * Add Defect - Allows a defect to be added to a card.
- * Add Bug - Allows a bug to be added to a card.
- * Attach - Allows you to upload and attach a file to an individual card.
- * Split Story - Allows you to split a story in half.
- * Internals - Allows you to display all the attributes of a card including the internal ones.
- * Delete - Allows you to delete an individual card.
- * JSON - Allows you to display all the attributes of a card in JSON format.
- * Expedite - Allows a card to be rendered expedited
- * Unexpedite - Allows the current expedited card for a project to be rendered unexpedited.
- * Top - Move card to top within those cards with same state, priority and type on kanban board.
- * Up - Move card up one within those cards with same state, priority and type on kanban board.
- * Down - Move card down one within those cards with same state, priority and type on kanban board.
- * Bottom - Move card to bottom within those cards with same state, priority and type on kanban board.

36. [Estimated/Actual Time/Cost](#)

- * Estimated/actual time fully implemented.
- * Estimated/actual cost fully implemented.

37. [Categories](#)

Allows a user-defined category to be assigned to a card. All cards of one category can be shown on mass on the kanban board via the global filter's Category field.

38. [Warnings](#)

Warning given if in a Testing column but no reviewer assigned.

Date for next action can be individually set per card. Visual notification/warning will be given when date is approaching or has passed. Such cards can be viewed on mass on the Action kanban board.

Due date for completion (deadline) can be individually set per card. Visual notification/warning will be given when date is approaching or has passed. Such cards can be viewed on mass on the Deadline kanban board.

39. [Bottleneck Warning](#)

You will get a bottleneck warning towards the top of a state column on the kanban board if a waiting card can't be pushed or pulled to the next state column due to it having reached or exceeded

its maximum WIP limit.

40. WIP Limit Reached/Exceeded Warnings

You will get a 'WIP Limit Reached' and/or 'WIP Limit Exceeded' warning at the appropriate point between the cards displayed for a particular state column should your maximum WIP limit be reached or exceeded.

41. Search

Kanbanara features an extensive search facility allowing you to search for a phrase in all or a named card attribute.

Kanbanara features an extensive search facility that not only allows you to search within a particular card attribute but will also automatically ignore certain filter bar settings to maximise the chances of finding a match. There is even a search-specific kanban board that allows highlighting of the current search phrase, should a match be found, on any card displayed.

42. Rules

One or more rules, upto a maximum of ten, can be added to an individual card on the kanban board. Sample rules might be:

```
if state = "backlog"
and Kanbanara-24.state = 'backlog'
or state in ["defined", "analysis"]
and Kanbanara-24.state in ["defined", "analysis"]
then state = 'development'
and Kanbanara-24.state = 'development'
else state = 'defined'
```

```
if state = 'unittesting'
and reviewer is unpopulated
then reviewer = 'fred.blogs@acme.com'
```

Keywords	Condition Attributes	Action Attributes	Operand	Values
if and or then else	affectsversion, blocked, coowner, coreviewer, fix- version, nextaction, owner, reviewer, state, <card_ id>.<any_of_above_attri- butes>	affectsversion, blocked, coowner, coreviewer, fix- version, nextaction, owner, reviewer, state, <card_ id>.<any_of_above_attri- butes>	= != >= <= is in nin	populated unpopulated defined undefined true false <list> <int> <string> <float> <bool>

A card's rules are automatically triggered (if more than an hour since their last firing) whenever a kanban board containing that same card is displayed or refreshed. A card's rules can be triggered

immediately by clicking on 'Execute Rules' within a card's menu.

43. [Stuck](#)

Ability to flag up that you are stuck on a particular card. Such card will then appear on others' kanban board prompting them to come to your aid.

Should a team member get absolutely stuck with a particular card, a stuck setting can be enabled by entering text describing how they are stuck and what assistance they require, whereupon such a card will appear on everyone else's kanban board in the same project thus allowing help from a colleague in the shortest possible time.

44. [Next Action and Deadline](#)

Next action or deadline dates can be individually assigned to a card. The Today kanban board is particularly useful in isolating those cards requiring your attention today (or indeed yesterday). Such cards can also be displayed per day on the Diary page.

Date for next action can be individually set per card. Visual notification/warning will be given when date is approaching or has passed. Such cards can be viewed on mass on the Today kanban board.

Due date for completion (deadline) can be individually set per card. Visual notification/warning will be given when date is approaching or has passed. Such cards can be viewed on mass on the Deadline kanban board.

45. [Expedite Swim Lane](#)

Kanbanara features an expedite swim lane allowing you to expedite just one card per project at any one time.

Kanbanara possesses an expedite swim lane to allow one card per project to be expedited in order to speed its flow across the kanban board. Just click on the 'Expedite' option on the required card's menu to render it expedited, whereupon the expedite swim lane will appear if not already.

46. [Attachments](#)

A file may be uploaded and attached to an individual card.

47. [Avatars](#)

A team member's avatar may be uploaded and utilised, for example, on the avatar kanban board.

48. [Inline Editing](#)

The card view page allows certain attributes of a card to be edited inline.

49. [Hierarchy](#)

Such cards can be chained together with a simple parent-child relationship. Although a parent can

have many children, a child can have only one parent.

Kanbanara possesses an 'Isolate' facility to show just those cards hierarchically chained together.

50. [Subteams](#)

One or more subteams can be added to a project. Any of a project's subteams can then be applied to a card in that same project, allowing you to display only those cards for a particular subteam on the kanban board via the subteam filter setting.

51. [Blocking a Card](#)

A card can be blocked by a team member explicitly setting it as such. To such a block can be additionally added a date upon which the card will be automatically unblocked. A card can also be automatically blocked by its children if the parent and children get out of step as regards their states.

An individual card can be blocked in one of several ways:

- * Explicitly blocked by one or more of its children.
- * Automatically blocked if the states of the parent and any one of its children are in conflict.
- * Explicitly blocked until manually unblocked.
- * Explicitly blocked until a set date when it will be automatically unblocked.
- * Blocked due to a 'before' or 'after' attribute being set on itself or another card.

52. [Waiting](#)

The waiting section within a particular column holds any cards that the team member whose kanban board is currently being viewed has completed and moved to the next state but a corresponding owner/co-owner/reviewer/co-reviewer has yet to do the same.

53. [Deferrals](#)

An individual card can be deferred or placed on hold either indefinitely or until a specified date. Unlike other project management systems, a card can be deferred whilst in any state except closed.

54. [Ghost Cards](#)

At the bottom of each column on your kanban board is a section to hold ghost cards. Such ghost cards fall into one of two categories - either they are your own ghost cards having materialised to others whilst in their review period or they are the ghost cards of others which only materialise to you during their review period. For example, should you as a reviewer be assigned to a card many columns prior to reaching a review column (e.g. testing, QA), it will appear to you as a ghost card. Such appearance indicates to you that you have been assigned as the card's reviewer but there is absolutely nothing for you to do until it reaches a review column when it will instantly materialise. You can think of ghost cards as residing in an undercurrent - cards you need to see but are not directly responsible for.

55. [Resolution](#)

When a card reaches the closed state, a resolution of 'Released' or 'Abandoned' can be separately assigned.

56. [Standup](#)

Kanbanara possesses a Standup page which should be seen from the back of the room.

The Standup page features a cut down version of the kanban board and allows the person in charge to either step through each team member or each significant card in turn. Each card selected is then displayed towards the bottom of the screen, in both kanban board and list view formats, along with its children if any.

57. [Emotions](#)

An emotion can be assigned to a card allowing a Project Manager to view all such emotions on the Emotions kanban board thereby getting a feel for the moral within his/her team.

58. [External Reference](#)

External reference and/or hyperlinks can be individually assigned to a card. Such references can be viewed on mass on the ExtRef Kanban board - Especially useful if selecting Service Support person as team member in the global filter.

59. [Service Level Agreement](#)

TO BE COMPLETED

60. [Notes And Statuses](#)

A card's previous notes and statuses are not retained, simply revised over time.

61. [Closing Off A Release](#)

* Has no concept of closing off a release.

62. [Closure and Resolution](#)

Resolution (Released, Abandoned, etc.) for a Closed card can be separately assigned.

User can set a time period for the number of cards in closed state they want displayed.

63. [Absence and Absenteeism](#)

The Absence page allows you to enter the start and end date of your next absence from work, so as to alert others to your absenteeism, especially if you are a reviewer for one of their cards. Each team member has the ability to enter the next date range that they will be on holiday, thereby alert-

ing their absence to the owners or co-owners of cards for which they are a reviewer. or co-reviewer.

64. [Classes Of Service](#)

A class of service may be allocated to a card.

65. [Votes](#)

Votes may be allocated to any card on the backlog.

66. [Custom Fields](#)

No custom fields are currently allowed.

67. [Themes](#)

Kanbanara features a theme creator that allows you to change the colours of the states and cards on the kanban board.

68. [Alternative Visualisations](#)

In addition to the Kanban board itself, your cards can be visualised in a number of ways such as list view, standup, backlog sorter, timeline, activity stream, diary, time sheet, wallboard, release kickoff and retrospective.

◇ [Backlog Sorter](#)

The Backlog Sorter consists of four priority blocks, each containing four severity columns, making sixteen columns in all. The Backlog Sorter allows you to organise the cards on the backlog by both priority and severity by dragging a card from one column and dropping on another. This ensures that the cards with the higher priority/severity appear towards the top of the backlog column on the kanban board.

◇ [Activity Stream](#)

The Activity Stream page lists all the changes made recently to your cards.

◇ [List View](#)

The List View page allows you to display the cards in table format. Clicking on any of the column headings allows the cards to be resorted.

◇ [Timeline](#)

TO BE COMPLETED

◇ [Diary](#)

The Diary page presents you with a 28-day diary view to which cards requiring action on a particular day have been added. A card will appear on the diary view if a next action, deadline, start by or hidden until values has been set to activate within the next 28 days.

◇ [Time Sheet](#)

The Time Sheet page presents you with a diary view covering the past four weeks to which cards worked on on a particular day have been added.

◇ [Standup](#)

The Standup page features a cut down version of the kanban board and allows the person in charge to either step through each team member or each significant card in turn. Each card selected is then displayed towards the bottom of the screen, in both kanban board and list view formats, along with its children if any.

◇ [Card Types](#)

The Card Types page shows all the cards by type.

◇ [Release Kickoff](#)

The Release Kickoff pages allow you to perform a release kickoff for the currently selected project and release.

◇ [Retrospective](#)

The Retrospective pages allow you to perform a retrospective for the currently selected project, release and iteration.

69. [Metrics](#)

With regard to metrics, Kanbanara possesses quite a few such charts - Abandoned, Bugs and Defects, Burndown Chart, Completed, Cumulative Flow Diagram, Division of Labour, Emotions, Recidivism Rate, Tags and Throughput.

◇ [Abandoned](#)

This page shows the number of cards abandoned in the selected time period.

◇ [Bottlenecks](#)

TO BE COMPLETED

◇ [Buffer Burn Rate](#)

TO BE COMPLETED

◇ [Bugs and Defects](#)

TO BE COMPLETED

◇ [Burndown Chart](#)

TO BE COMPLETED

◇ [Burnup Chart](#)

TO BE COMPLETED

◇ [Completed](#)

TO BE COMPLETED

◇ [Control Chart](#)

TO BE COMPLETED

◇ [Cumulative Flow Diagram](#)

Cumulative Flow Diagram implemented showing CFD status for all or individual team member over the last 30 days.

◇ [Cycle Time](#)

Cycle time allows you to track the time for work items during development and testing.

◇ [Division of Labour](#)

The Division of Labour page displays a Division of Labour chart, based on your current filter settings.

◇ [Due Date Performance](#)

TO BE COMPLETED

◇ [Earned Business Value](#)

TO BE COMPLETED

◇ [Emotions](#)

The Emotions page displays a Emotions chart, based on your current filter settings.

◇ [Percentage of Scope Complete](#)

TO BE COMPLETED

◇ [Quality](#)

TO BE COMPLETED

◇ [Recidivism Rate](#)

TO BE COMPLETED

◇ [Running Tested Features](#)

TO BE COMPLETED

◇ [Statistical Process Control](#)

TO BE COMPLETED

◇ [Tags Chart](#)

TO BE COMPLETED

◇ [Team Autonomy](#)

TO BE COMPLETED

◇ [Throughput Rate](#)

TO BE COMPLETED

◇ [Value/Failure Demand](#)

TO BE COMPLETED

◇ [Velocity](#)

TO BE COMPLETED

◇ [Velocity By Effort](#)

TO BE COMPLETED

70. [Filter Manager](#)

The current set of global filter settings can be saved at any time. The Filter Manager page allows you to managed your saved filter settings.

71. [Cumulative Flow Diagram](#)

Cumulative Flow Diagram implemented showing CFD status for all or individual team member over the last 30 days.

72. [Status Report](#)

Partial Status Report facility implemented.

73. [Wallboard](#)

The Wallboard is designed to be left unattended whereupon it will automatically cycle through a number of screen showing aspects of the currently selected project and release.

74. [MongoDB](#)

Kanbanara utilises the NoSQL database, MongoDB, to store all its data.

Only Admin user can delete and/or rebuild database.

75. [JSON](#)

With MongoDB being Kanbanara's underlying database system of choice, it is almost a natural fit to display such documents, be they for a card, project, session or personal filter settings, in JSON format.

Any card can be viewed in JSON format, not to mention a project itself, your session or your personal filter settings.

All data can be viewed and/or exported in JSON format.

* Database incrementally saved in JSON format as data is added or updated.

* Database (members, projects and cards) can be fully and identically rebuilt at any time from JSON files - However previously deleted items may reappear!

76. [Import](#)

A partial CSV import facility for JIRA Agile has been implemented.

77. [Export](#)

All data can be viewed and/or exported in JSON format.

78. [Upgrades](#)

?????

79. [Disaster Recovery](#)

Database incrementally saved in JSON format as data is added or updated.

Database (members, projects and cards) can be fully and identically rebuilt at any time from JSON files.

80. [Rest API](#)

Kanbanara possesses a Rest API to allow client software to interact with the product:

* rest_api_get_token

Inputs: username, password

Output: token

* rest_api_get_projects

Inputs: token

Output: projects

* rest_api_get_project_members

Inputs: token, project

Output: usernames

81. [Recommended Further Reading](#)

Kanban: Successful Evolutionary Change for Your Technology Business, David J. Anderson. (United States: Blue Hole Press, 2010)
--

Kanban from the Inside, Mike Burrows. (United States: Blue Hole Press, 2014)
--

Kanban in Action, Marcus Hammarberg and Joakim Sunden. (Shelter Island, NY: Manning Publications, 2014).

The filter bar makes it easy to switch between releases and/or iterations, be it the previous, current or next one.

Cards

Cards can be of type Epic, Feature, Story, SubStory, Enhancement, Defect, Task, Test and Bug. All cards or just those of a particular type can be shown.

Cards can be hierarchically chained together.

Context of a card's title retained due to grandparent and parent title also being displayed.

Details of a particular card can be reached via unique URL based on card ID (i.e. Kanbanara-12345), thereby allowing a direct link.

Attachments can be made to a card.

Partial inline editing.

A card placed on the kanban board can be of any one of eight types - epic, feature, story, enhancement, defect, task, test or bug. Such cards can be chained together with a simple parent-child relationship. Although a parent can have many children, a child can have only one parent.

Placeholder

Cards not participating on a particular kanban board are shown as placeholders.

82. [Global Filter](#)

Simple navigation via savable global filter.

Easy to switch between projects.

Easy to switch between previous, current and next release.

In addition to the kanban board itself, Kanbanara has also been developed around a global filter bar that allows you to select what cards actually get displayed on your kanban board, be they for a particular project, team member, release, iteration or card type, to mention just a subset of the available options. Should you see a number above a particular filter setting, this tells you how many cards are being filtered out as a result of this setting.

Filter bar allows a subset of the states to be shown allowing you, for example, to hide Backlog and Closed as required.

Card can't be moved to a new state if its children forbid it.

83. [Time and Cost](#)

Estimated/actual time fully implemented.

Estimated/actual cost fully implemented.

As all cards will eventually end up in the closed state one way or another, unless of course deleted, the number of cards displayed can be restricted to those cards closed in the last five years right down to those closed within the last hour.

The filter bar makes it easy to switch between releases and/or iterations, be it the previous, current or next one.

Reviewer

Up to two reviewers can be assigned to a card.
Warning given if in a Testing column but no reviewer assigned.

When assigning a reviewer to a card, the reviewer's names are placed in order of least busy to most busy, with a card count after their name, thereby allowing the least busy team member to be more likely chosen. When a card reaches a Testing state, the owner and reviewer effectively switch roles, with the reviewer requested to work on the card and the owner a passive observer. As a reviewer, you can see what work is heading your way as such cards appear greyed out in the states preceding a Testing state.

Review Bypass

Should you wish to use Kanbanara as your personal kanban tool, setting a card's `bypassreview` attribute allows a card to go straight from Developed to Accepted bypassing any Testing state.

Block

Parent card is automatically blocked by one or more of its children if their states have got out of step.

A card can be blocked by a team member explicitly setting it as such. To such a block can be additionally added a date upon which the card will be automatically unblocked. A card can also be automatically blocked by its children if the parent and children get out of step as regards their states.

Wallboard

Partial wallboard.

84. [Reports](#)

In addition to a number of built-in reports, Kanbanara allows custom reports to be defined using a language similar to that used for rules:

```
search state = developed show state, owner, reviewer, title, state
```

85. [Admin](#)

Only Admin user can delete and/or rebuild database.

86. [Underlying Technology](#)

Kanbanara is written in Python 3.
Uses underlying NoSQL MongoDB database system.