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Module 1 - Overview

(i) Scenario

Doug needs an agile board for his team that works in a continuous process. He also needs a separate place to plan and prioritize tickets before team members start to work on them.

Which board type should Doug create and how should he configure it?

- 1. Define
- 2. Design
- 3. Build
 - Create project and board
 - Create board only
- 4. Test

1. Define

Doug is a project administrator and he manages a team that works in a continuous process. Namely, work items are continuously added to the backlog, prioritized by Doug, worked by the team, and continuously finished. These are the clues that Doug's team is a Kanban team and needs a Kanban board. Unlike in Scrum, there is no formal planning, estimating, and timeboxing of work.

Additionally, Doug needs a separate place to plan and prioritize tickets before team members start to work on them. This is precisely the purpose of a Kanban backlog. By default, the Kanban backlog is in the first column of a Kanban board, along with the rest of the columns. This may be sufficient if there are only a few issues in the backlog. But as a backlog grows, viewing and scrolling through these issues can become difficult.

Doug already knows he wants to plan work for his team, and therefore to have a separate and bigger space to create and rank issues and select issues for his team to start working on. Hence, he should enable the Kanban backlog for his board.

He can triage and plan before sending the tasks to the team for development by dragging them up into the Selected for Development area. Those items will then appear on the main Kanban board. Team members can focus on work-in-progress on the Kanban board, without the distraction of Doug planning and prioritizing items in the backlog.

2. Design

We do not know from the scenario whether Doug and his team already have a dedicated Jira project. So let's look at both possibilities; (1) the project doesn't exist yet and (2) the project exists but doesn't yet have a board.

In the first case, we need to create a Kanban project (which creates the board automatically) and then configure the board to enable the backlog.

In the second case, we simply create the Kanban board manually and then enable the backlog on the board.

3. Build

Create project and board

- 1. Log in as a Jira administrator.
- 2. Choose "Create project" from the Projects dropdown in the main navigation bar.
- 3. Choose the Kanban software development project template.
- 4. Click Select on the next dialog window.
- 5. Enter the project name and key and click Submit. * Note: the Kanban board was created automatically and you are taken to that empty board.
- 6. Click Configure from the Board dropdown menu on the right.
- 7. Go to Columns on the left-hand side configuration menu.
- 8. Drag the Backlog status from the Backlog column to the "Kanban backlog" area on the left of the columns.
- 9. Delete the Backlog column. (that is now empty)
- 10. (optionally) enable the Epics panel.
- 11. Continue with the rest of the board configuration, if desired.

Create board only

- (i) When creating the board, you choose the Scrum or Kanban board type. Then there are two options for populating your board with issues:
 - Issues from one or more existing projects. This is the most common approach. Or
 - Issues returned by an existing filter. You have more fine-grained control with this
 option, but there are many caveats and configurations to be aware of if issues
 come from multiple projects.
 - 1. Log in as Doug. (the person who will become the board administrator)
- 2. Go to Doug's project.
- 3. From the project side-navigation, click "+ Create Board".
- 4. Choose "Create a Kanban board".
- 5. Choose "Board from existing project".
- 6. Name the board.
- 7. Click "Create board".
- 8. Follow steps 6-11 from above.

4. Test

1. Go back to the board.

- 2. Ensure you have a Backlog view and a Kanban Board view, both shown in the project side-navigation.
- 3. Create a new Task in the project from the Create link in the main navigation bar.
- 4. Verify the new issue appears in the backlog.
- 5. Drag-and-drop the issue into the Selected for Development section.
- 6. Verify that the issue now also appears in the first column on the Kanban board.

Module 2 - Board Configuration

(i) Scenario

Claudia asks for your help with updating her board configuration. She needs three changes:

- add testing into the process and ensure that development is done before testers pull work into Testing
- 2. have only 3 issues being tested at a time
- 3. show the Platform field on each card

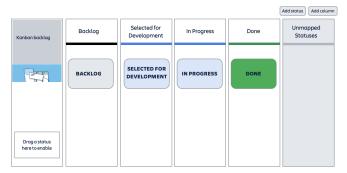
We need to decide which board changes will meet Claudia's needs and how to make those changes.

- 1. Define
 - Update 1
 - Update 2
 - Update 3
- 2. Design
 - Update 1
 - Update 2
 - Update 3
- 3. Build
 - Update 1
 - Update 2
 - Update 3
- 4. Test
 - Update 1
 - Update 2
 - Update 3

1. Define

Claudia is a project administrator. We do not have any clues in this scenario about whether her board is Scrum or Kanban. But in her case, it doesn't matter. Because all three changes can be made in either board type. We also don't currently see her workflow but we can make an assumption about it. Let's say her board uses the default Kanban configuration and hence the Simplified Workflow, as shown.

Default Configuration: Kanban board



	Solution
Update1	Claudia wants to add testing into the process and ensure that development is done before testers pull work into Testing. But we cannot just add a new status and column called "Testing". To meet her needs, we actually need to add two new statuses and columns; for example, "Development Done" and "In Testing". The reason is that she needs a clear distinction between:
	 Development (is) Done – in which case the developer pushes the work item to this status. The tester may or may not be ready to start testing yet, so the issue remains here. Tester is ready and pulls the issue to work on it. The issue is now In (the) Testing process.
	This is a great example of push-pull in Kanban flow.
Update 2	Claudia also wants to have only 3 issues being tested at any given time. So we need to add Column Constraints on the new In Testing column.
Update 3	Claudia wants to show the Platform field on each card. We don't recognize this as a system field so it must be custom. We can add it to the Card Layout. If this is indeed a Kanban board, it's possible that the Kanban Backlog is enabled. That's OK. We can add it to both Backlog and Kanban Board views.

2. Design

	Solution
Update1	 Add status called "Development Done" and map to the column Add status "In Testing" and map to the column
Update 2	 Set Column Constraint to Issue Count Set 3 as the maximum on the "In Testing" column
Update 3	 Add Platform field to the Card Layout for Kanban Board Add Platform field to the Backlog, if it's enabled

3. Build

	Solution
Update 1	 Log in as Claudia, the board administrator of a Kanban board that uses the Simplified Workflow. Click Configure from the Board dropdown menu on the right Go to "Columns" on the left-hand side configuration menu Click the "Add Status" button. i We made the assumption that she is a project administrator and a board administrator and that the board is using the Simplified Workflow. So Claudia will be able to do this part. Enter the Name "Development Done" and leave the Category as (blue) In Progress. i If this status doesn't yet exist in this Jira instance, you will see "(New Status)" as you finish typing the name. Select that Status and click Add. i The status showed up in the Unmapped Statuses area. Click the "Add Column" button. Enter the Name "Development Done". Click the "Add Column" button. i Jira recognized that the new column name matches an unmapped status, so it automatically mapped it for you. Now click "Add Column" first. Enter the name "In Testing" and leave the Category as (blue) In Progress. Click the "Add Column" button. i Jira recognized that you don't yet have a status by that name, so it automatically created the new status and mapped it for you. Ensure the columns are in the right order.
Update 2	 Select "Issue Count" from the Column Constraint dropdown. i Jira adds yellow and blue boxes beneath each column name so you can enter the WIP limits. Go to the new column "In Testing" which you just created. Replace the text "No Max" with the number 3.
Update 3	 Click Configure from the Board dropdown menu (if you're not already there) Go to "Card layout" on the left-hand side configuration menu Under the heading "Kanban board" find the field "Platform" from the Field Name dropdown. Click the "Add" button.

Solution
5. Under the heading "Backlog" find the field "Platform" from the Field Name dropdown and click the "Add" button. (1) Only if the Kanban Backlog has been enabled.

4. Test

	Solution
Update1	 Log in as any user who has access to this board. Go to the Kanban Board. Ensure you now see two new columns named "Development Done" and "In Testing" and that they are in the correct order. There will be no issues in these columns because we just created the statuses. Drag-and-drop a card from any other column into the "Development Done" column. Verify that the status of the issue, as shown in the Issue Detail View for example, shows "Development Done". Now drag the same card to the next column "In Testing". Verify that the status of the issue shows "In Testing"
Update 2	 Ensure that there is no color in the In Testing column. Since there is only 1 issue in there now. Drag a second card into In Testing column. It should still not have a color. Drag a third card into In Testing column. It should still not have a color. Drag the fourth card into In Testing column. Verify that the top of the column now shows up in red. This means that the maximum number of issues has been exceeded.
Update 3	 Select any issue on the board. Click the "e" keyboard shortcut to Edit. Select a value for the Platform field. Select the issue on the board again so it opens the Issue Detail View for the card. Ensure that you see the Platform field and its value in Issue Detail View.

Module 3 - Agile Reports

(i) Scenario

Hakeem is worried about the scope changes approved by the product owner for the current sprint.

He wants to understand if and how this impacts his commitment to the sprint. To answer this question, we need to analyze a few reports.

He is also wondering if changing the estimation settings is a good idea. To answer this question, we need to check the Estimation area of his board configuration.

- 1. Define
- 2. Design
 - Part 1
 - Part 2
- 3. Build
 - Part 1
 - Part 2
- 4. Test
 - Part 1
 - Part 2

1. Define

We will assume that Hakeem is a project administrator and a board administrator and that he works on one project in one board. We know it's a Scrum board because the scenario talks about the current sprint. We really don't need to know much else besides estimation.

However, remember that Estimation Statistics are the key to analyzing reports. So it's a good idea to check that first, before we go analyze any reports. Also, the scope changes may have a larger impact than just the current sprint. For example, due to the scope changes, we may not be able to complete other issues we have already committed. Those issues may have been a part of one or more epics, and therefore impact the Epic Burndown. Or they may have been planned to a Version, in which case there may be an impact to the forecasted Release Burndown. It's a good idea to review those reports, too.

2. Design

	Solution
Part 1	 Go to Hakeem's board configuration, specifically to the Estimation tab. Identify his current setting for Estimation Statistic and Time Tracking.
Part 2	 Now go to the Reports for the board. Review Burndown Chart, Burnup Chart, Sprint Report → to check on the impact to the current sprint.

Solution
 Review Velocity Chart to see if you have ever been able to deliver on the newly re-estimated value.

3. Build

	Solution
Part 1	 Log in as Hakeen and go to his board. Click Configure from the Board dropdown menu on the right. Go to "Estimation" on the left-hand side configuration menu. Check the setting of Estimation Statistic. For the sake of this use case, we assume that it was set to Issue Count. Check Time Tracking. We assume it was set to None.
Part 2	 Go back to the board. Select the Reports tab. Go to the Burndown Chart. i You will see Issue Count as the y-axis. Assuming that the issues approved by the product manager were already added, you should see an uptick in the red line. It will have increased by the number of issues added, since your Estimation Statistic is Issue Count. You can also see the issues that were added in the detail table below. Go to the Burnup Chart. i You will see a clear work scope change. The issue count on the y-axis will have increased by the number of issues added and you will see the adjustments in the table below. Go to the Sprint Report. i You will see asterisks next to several issues, indicating that they were added to the sprint after the start time. Go to the Velocity Chart. You can see your average velocity (average number of issues you complete in sprints) as well as the maximum number you have ever completed. This might tell you something about the likelihood to completing all the issues now in the sprint.

- i) Optionally, you can check a few more reports for additional insight.
 - Go to the Epic Burndown reports to see if this will increase your forecast of the number of sprints to complete for the epics involved.
 - Go to the Release Burndown to see if this will increase your forecast of the number of sprints to complete for the versions involved.
 - Go to the Version Report to see if there is a change to the predicted release date.

4. Test

We have a theory that using Issue Count as an Estimation Statistic is not a great idea, especially when there are scope changes on the horizon. That's because a simple count of issues does not take into account their relative size and complexity in the way that Story Points do. Story Points are generally a better predictor of velocity than issue count, especially for development teams.

To test our theory, we will want to change the Estimation Statistic to Story Points. Then we will perform a mock sprint to see how different the reports look, and how much better information they provide.

	Solution
Part 1	 Log in as Hakeen and go to his board. Click Configure from the Board dropdown menu on the right. Go to "Estimation" on the left-hand side configuration menu. Change the setting of Estimation Statistic to Story Points. Leave Time Tracking as None. Tracking time with Remaining Estimate and Time Spent defeats much of the purpose of using Story Points to abstract from time and focus on complexity instead. There were other reasons mentioned in the course. So let's leave this as None.
	(i) As soon as we change the Estimation Statistic and return to look at reports, we will see an eery absence of data. It's not gone, but it's just not being displayed the same as before. We will perform a mock sprint (or two) to get a much better idea of how Story Points function.
Part 2	 Go to your board and create several new issues. Estimate each of the issue by entering a Story Point value. Choose different values to represent stories of different sizes and complexities. Now you can enter the estimate because you are using Story Points. With issue count, you don't need to do so hence Jira greys it out. Create a sprint, add the estimated stories, start the sprint. Go to the Active Sprints tab and complete some issues but not all. Complete the sprint. Repeat steps 1-5 above with more issues and vary the estimates and numbers of issues you add to sprints, as well as the number you complete. From time to time, refer to the Burndown Chart, Burnup Chart, Sprint Report, and Velocity Chart to see the differences in the data they now provide.

Solution
 Repeat steps 1-3 above. Now add some issues from the Backlog to the Active Sprint. This is the scope change. Go to Active Sprints and complete a few of the newly added stories and a few of the ones from the initial commitment. Complete the sprint. Review the reports to see the impact on burndown, burnup, and velocity.

Module 4 - Board Caveats

(i) Scenario

Tara created and configured an agile board, but she has four issues and asks us to help her troubleshoot and fix them.

- 1. No one can see the board.
- 2. She can't rank issues on the board.
- 3. She sees Epics that have long been completed.
- 4. Issues appear in the wrong swimlanes by queries.

We will take each of these problems one-by-one and identify the possible root cause or causes and then identify solutions for each one.

- 1. Define
- 2. Design
 - Issue 1
 - Issue 2
 - Issue 3
 - Issue 4
- 3. Build
 - Issue 1
 - Issue 2
 - Issue 3
 - Issue 4
- 4. Test
 - Issue 1
 - Issue 2
 - Issue 3
 - Issue 4

1. Define

Tara created a board so we know she is the board administrator. We also know she can see the project issues because she sees Epics and other issues. We don't know how she configured it, so we have to reverse engineer how she might have run into the problems she is now reporting. These four problems may or may not be related, but it's easiest to tackle them one at a time. The way to begin is to consider which areas of board configuration are involved and what we know about the default board configuration.

2. Design

	Solution
Issue 1	No one can see the board. Remember that each board is based on a saved filter. And that filter has to be shared with the users who need to see it. This is really the only explanation. Tara hasn't shared the saved filter with the project users.
Issue 2	She can't rank issues on the board. This can happen for two reasons. Either the saved filter is not ordered by Rank (in which case no one can rank on the

	Solution
	board even after she shares it) or she herself doesn't have the correct combination of project permissions; namely Schedule Issues and Edit Issues.
Issue 3	She sees Epics that have long been completed. Epics will appear in the Epics Panel until they are Marked as Done, regardless of their actual workflow status. So it's very likely that the workflow status of the Epic is Done (or something similar) but the field "Epic Status" is not yet Done.
Issue 4	Issues appear in the wrong swimlanes by queries. We don't see the JQL queries that define the swimlanes, but we can still venture some possible reasons. First of all, the JQL query in one or more of the swimlanes could be wrong. It cannot be invalid because it wouldn't have let her save. However, she could still have written a valid query that returns the wrong results. There are many common JQL problems. To name a few: (1) using the wrong AND/OR boolean when joining clauses, (2) not placing parenthesis correctly around clauses, (3) adding the wrong time parameter in date-related functions, (4) not querying for empty values, (5) not formulating a text search properly. So we should inspect each of the JQL queries and see if it returns the intended results. Secondly, the swimlanes could be in the wrong order. Issues are evaluated against the swimlanes in top-down order. So if an issue meets the criteria of multiple swimlanes, it will appear in the first swimlane (from the top) that matches.

3. Build

	Solution
Issue1	 Log in as Tara and go to her board. Click Configure from the Board dropdown menu on the right. Go to "General" on the left-hand side configuration menu. Check the Shares. Then Edit Filter Shares and add the right sets of people to Viewers. Add and Save.
Issue 2	 Log in as Tara and go to her board Click Configure from the Board dropdown menu on the right

	Solution
	3. Go to "General" on the left-hand side configuration menu.
	Possibile Cause #1
	 Check the Ranking setting. If it says "Ranking is disabled, as the Filter Query is not ordered by Rank" then this is likely the problem. So click the "Add Rank" button. Then go back to the board to see if you can rank. If the Ranking alerady says "Using Rank", then this eliminates the first possible cause.
	Possibile Cause #2
	 Go to the Project Settings of Tara's project. Click Permisson from the left-hand side. Check two permissions: Schedule Issues and Edit Issues to see which groups, roles, or individuals are listed there. You may need to go to the Users and Roles area to cross-check who is in the roles. If Tara does not have one or both permissions, then you need to ask a Jira administrator to make a permission change. If Tara is a project administrator, she can add herself to roles, as well. Then go back to the board to see if you can rank.
	(i) We have been making the assumption that Tara configured a board based on a single project. But we don't know that for sure in this scenario. If there are multiple projects in the board and they have different permission schemes, then one of the other schemes could be the problem.
Issue 3	 Log in as Tara and go to her board. Open the Epics Panel. Find one of the Epics in question. Look at the workflow status of the Epic. i If it's something like Done, Resolved, Closed or equivalent, then it's a good candidate to be Marked as Done. Choose "Mark as Done" from the ellipses () to the right of the Epic name. Click confirm. Verify that the Epic no longer appears in the Epics panel. Repeat for the other Epics.

	Solution
Issue 4	 Log in as Tara and go to her board. Click Configure from the Board dropdown menu on the right. Go to "Swimlanes" on the left-hand side configuration. Verify that the swimlanes are in the intended order so that issues which match multiple queries end up in the correct swimlane. Reorder, if necessary, then see if that fixes the issues. Otherwise, for each JQL query, execute the query in the Issue Navigator and inspect the results being returned. Verify that it returns the intended results. If no, then fix the query. Copy the correct query into the swimlane. Repeat for all the queries. Verify if that fixes the issues.

4. Test

In this use case, testing is simply a matter of executing the instructions in the Build section above and verifying that it fixed the problem.

	Solution
Issue 1	Ask 1-2 users if they can now see the board.
Issue 2	Try the fixes to both possible causes and see if Tara can now rank.
Issue 3	Peform the steps to mark the Epics as Done and then verify that they are no longer visible in the Epics Panel.
Issue 4	Perform the steps to verify the order of the swimlanes and/or the results of each query in Issue Navigator. Verify if the issues now appear in the expected swimlanes.