Overview

This Job Aid defines the steps to follow when identifying overallocation and allocation variance of resources across projects in Sensei IQ.

Work resources have defined availability and may have their time scheduled by a line manager in your organization. When line managers process the resource requests from project managers, it may result in some resources being overallocated. In this situation, the amount of committed work across all projects exceeds the resource's overall capacity for the requested periods and should have some of their work either reallocated to someone else or to another period when the resource has more availability.

Depending on your organizational rules, line managers are typically required to review the resource availability before approving the resource commitments across approved projects. Additionally, it is also equally important to monitor the variance between the committed work from resource requests recorded in the resource plan and the assigned project work from the tasks in the project plan (also referred to as **schedule**) as part of your project governance. This process allows your organization to make sure that the workload of resources is balanced appropriately.

Important: In Sensei IQ, **resource availability** is the difference between the overall resource capacity (based on the resource calendar and target utilization) and approved resource requests (i.e., *committed work in the resource plan*), **not** assignments (i.e., *work assigned to tasks in the project plan*). Unless the default setting is customized in your organization's Sensei IQ solution, the default range of past horizon and future horizon for the calculation of capacity for bookable resources is set to twelve (12) calendar months (past capacity) and thirty-six (36) calendar months (future capacity) from the current period due to Dataverse database quota implications.

When you need to determine if your resources are overallocated (or sometimes referred to as **overbooked**) and/or if your resources are being allocated to tasks across project plans that do not have a corresponding approved resource request (referred to as **allocation variance**), you can easily identify resource overallocation and allocation variance in the following ways:

1. **Identify resource overallocation using the Availability Heatmap**
2. **Identify resource overallocation from the Resource Demand screen**
3. **Identify resource overallocation from Insights**
4. **Identify resource overallocation from the Allocation tab**
5. **Identify resource overallocation from the Resource Plan tab**
6. **Identify resource overallocation from the Resource View**
7. **Identify resource allocation variance from Insights**

Once the resource overallocation is identified, you can resolve, if not minimize, the overallocation in agreement with the respective project managers by following the steps outlined in section **3. Modify an existing fulfilled request for named resources** from a related downloadable titled **JOB AID - Reviewing and approving resource requests.**

If there is a significant variance in the resource allocation between the resource plan (*committed work*) and the project plan (*work assignments*), the project manager will have to work to optimize the schedule, cut scope, or negotiate for

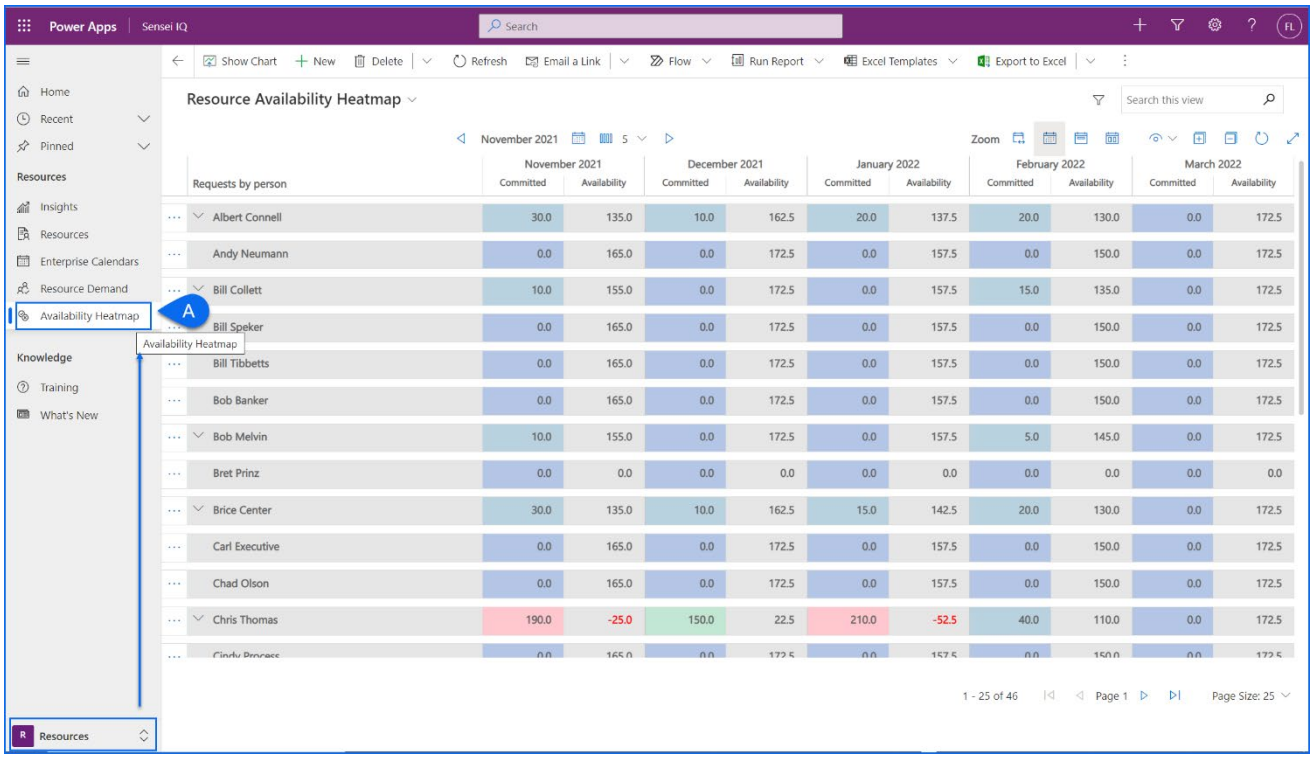
additional resources or changed dates to remain aligned to the committed work approved by the respective line managers.

Identify resource overallocation using the Availability Heatmap

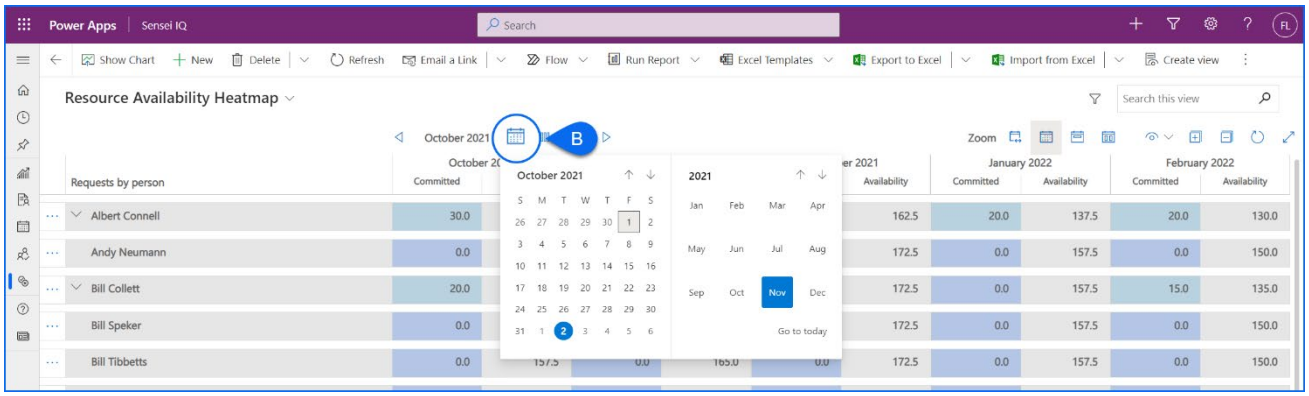
Resource Manager **Resources > Resources > Availability Heatmap**

1. SET THE RESOURCE AVAILABILITY HORIZON

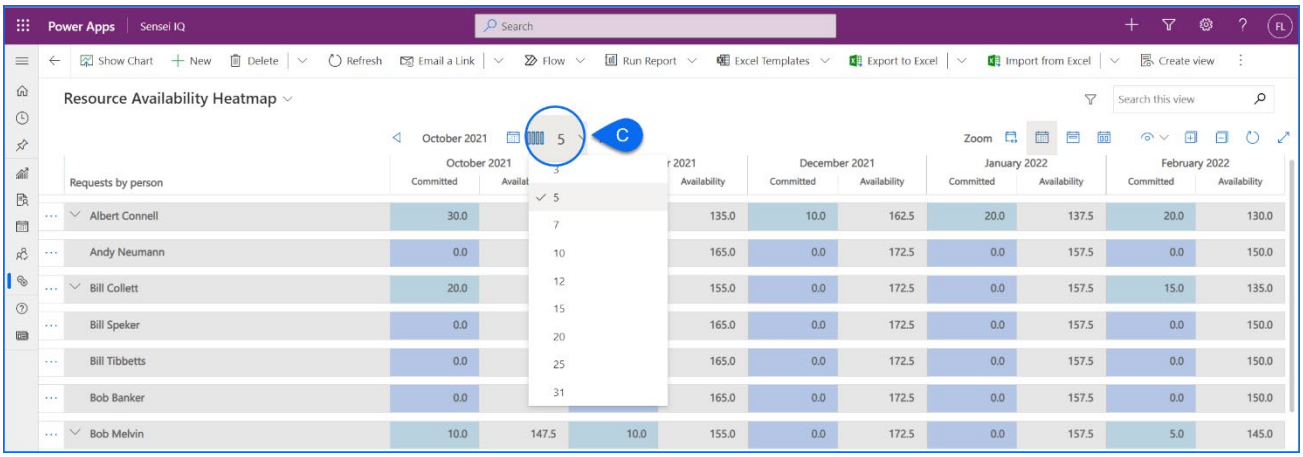
a. Ensure that you are in the **Resources** area and click **Availability Heatmap** in the **Resources** section.



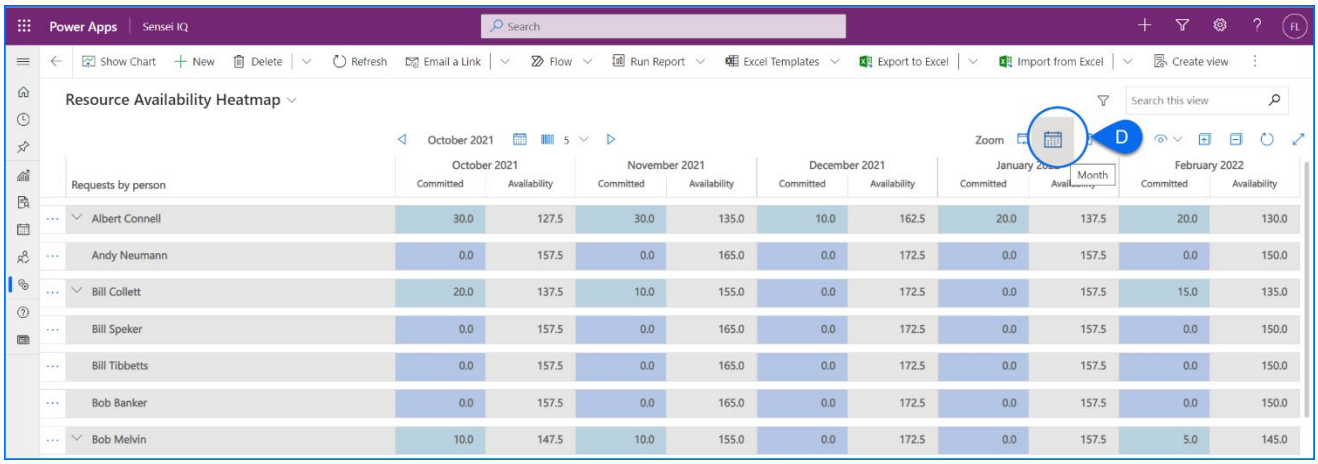
b. Change the selected **date** for the first period that you want to review resource availability from.



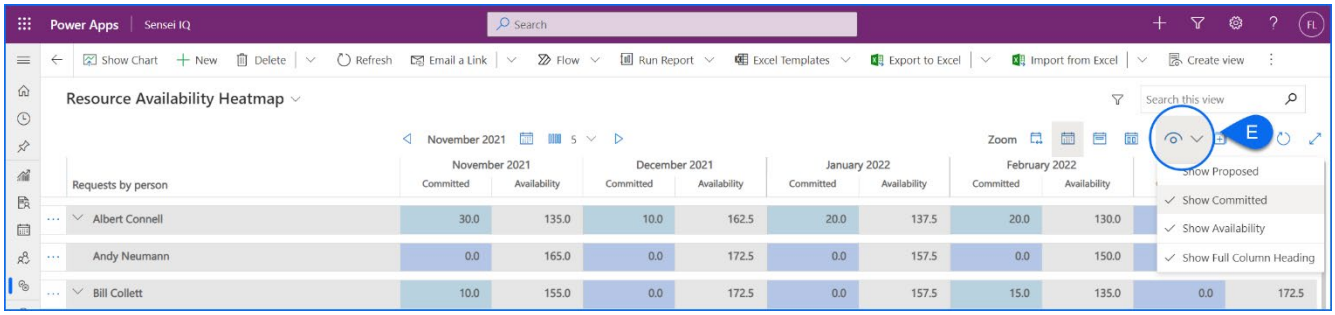
c. Set the number of **periods** you want to be visible on the page.



d. Set the **timescale** of the period that you want to review resource availability from using the **Zoom** feature.

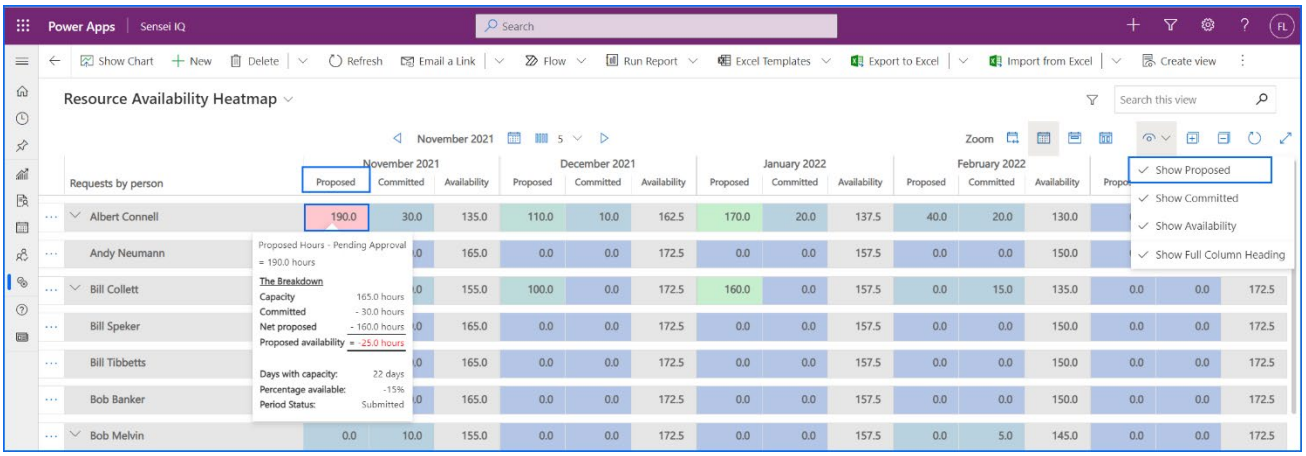


e. Ensure that only **Show Committed, Show Availability** and **Show Full Column Heading** options are selected from the **View Options** menu.

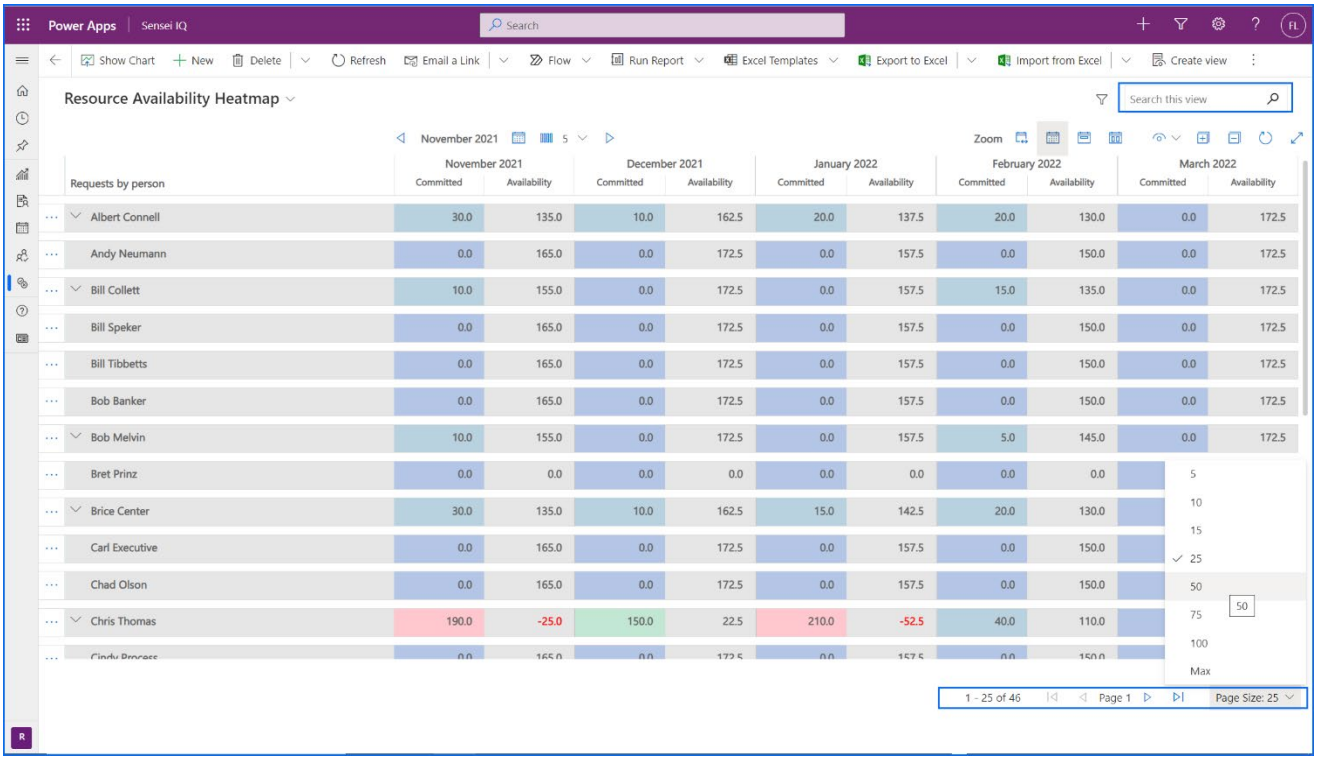


Tip: The default view in this report only displays the **Committed** column. Adding the **Show Availability** option to the default view allows you to compare the committed work versus resource availability (i.e., *total capacity for the visible period minus the total committed hours across multiple projects*). Only if you are comparing the total proposed work (also referred to as **unfulfilled submissions**) that are pending approval versus resource availability, you could optionally add the **Show Proposed** option to the view, but it is best interpreted using the **tooltip text** by hovering the mouse

over the **Proposed** cell to get more contextual information (**recommended**)

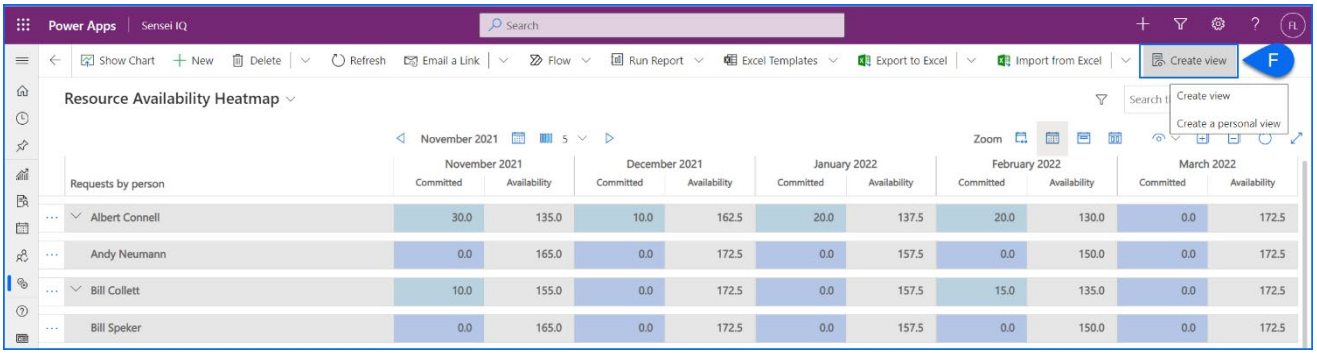


Tip: Use the **Search this view** box to look up a particular named resource from the list. Alternatively, use the controls at the bottom of the page to go the **Next page**, **Previous page**, **First page** or **Last Page**. Use the **Page Size** selector to increase the number of named resources displayed on the page.

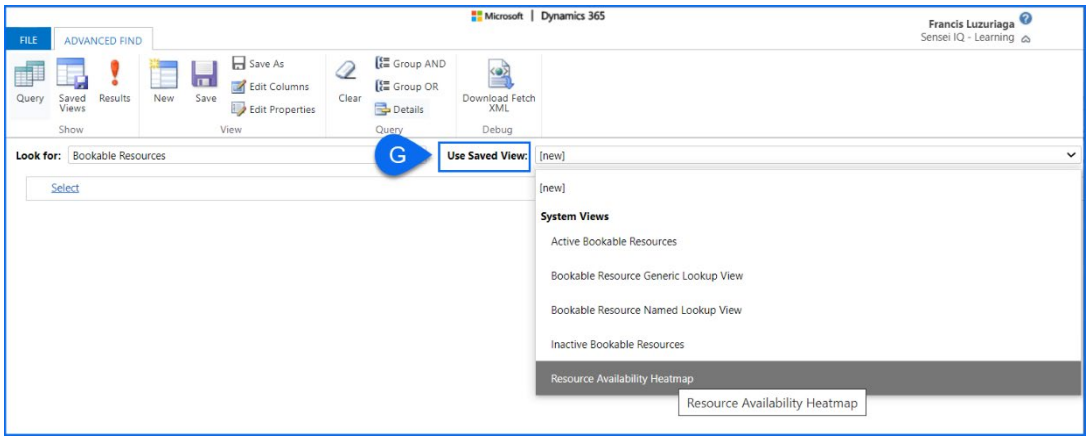


Important: This *read-only* report displays the committed work and availability of **all** named resources (also referred to as **bookable resources**) in Sensei IQ by default. Unless the default system view is customized in your organization's Sensei IQ solution, a personal view can be created with custom filters by the users to only include named resources that they are the line manager for (**recommended**).

f. From the ribbon, click the **Create View** button to display the **Advanced Find** dialog box.



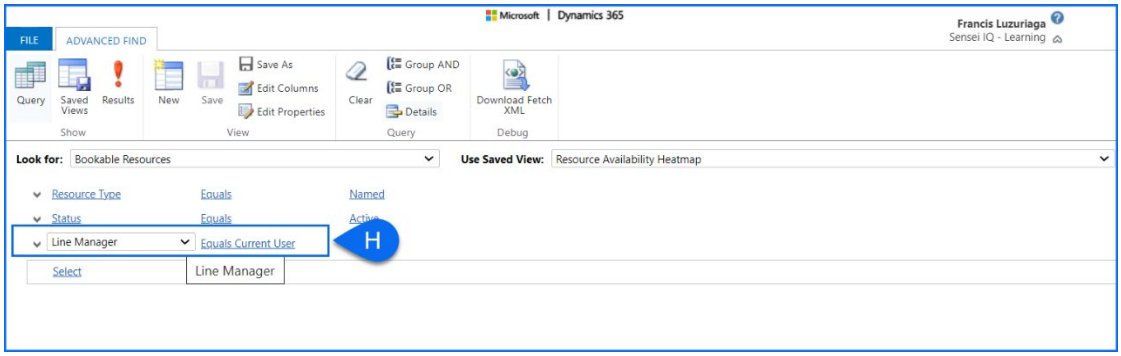
g. In the dialog box, select **Resource Availability Heatmap** from the **Use Saved View** drop-down list.



h. Create an additional filter to the selected view using the next blank row.

- **Line Manager – Equals Current User**

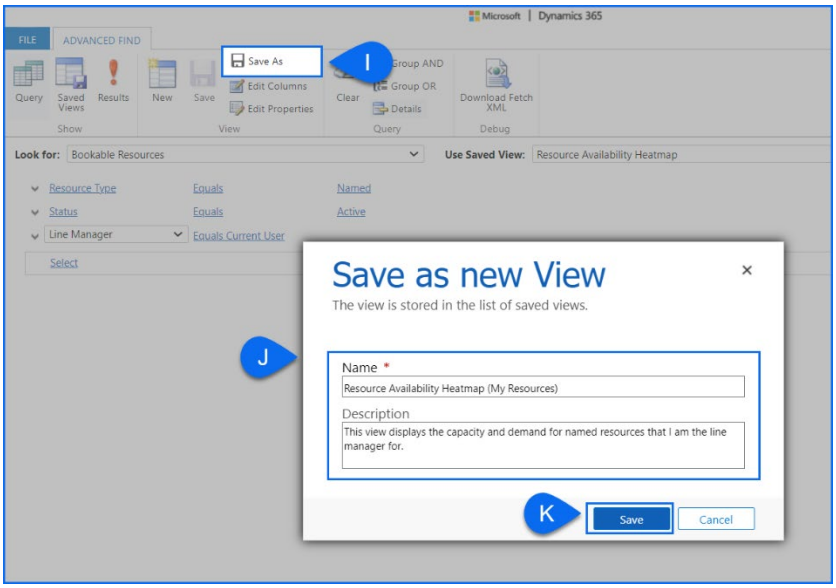
Tip: The default filters **Resource Type – Equals – Named** and **Status – Equals – Active** are automatically displayed on the screen.



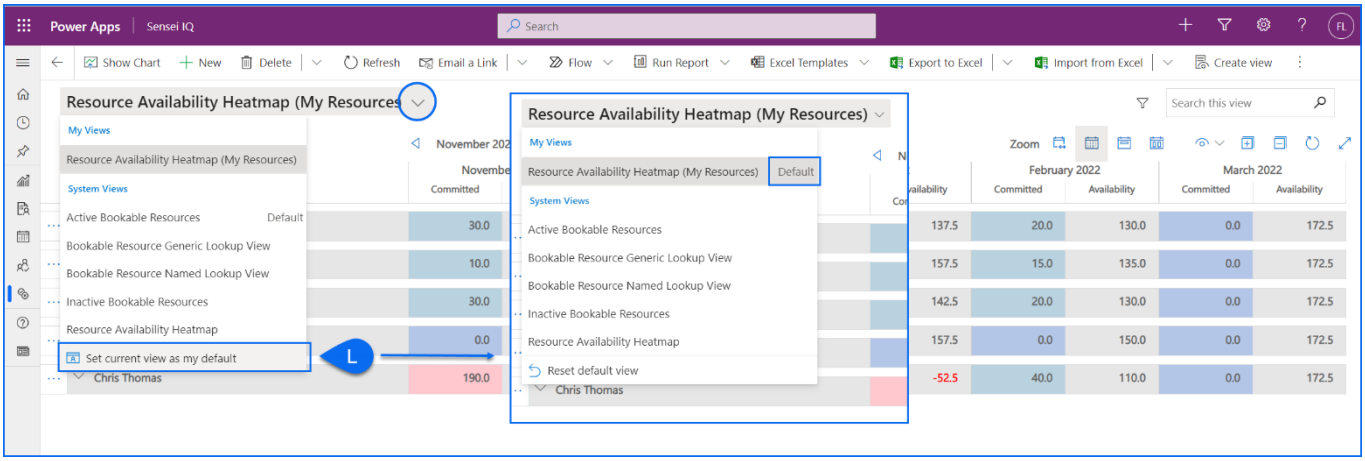
i. Once you have set the custom filter, click the **Save As** button from the **Advanced Find** ribbon.

j. In the **Save as new View** dialog box, provide a unique name for your custom personal view and a description (**recommended**).

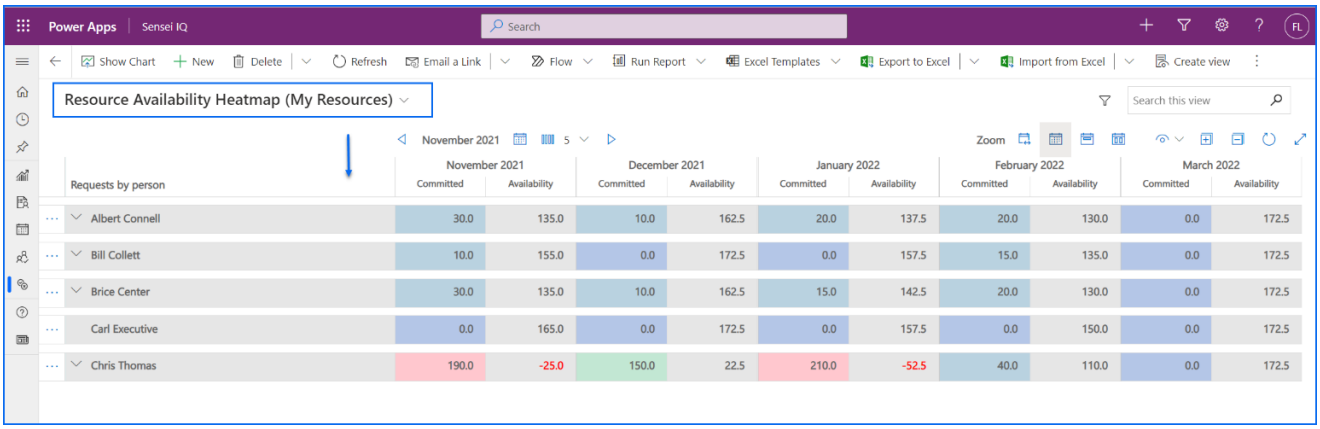
k. Click the **Save** button and close the dialog box.



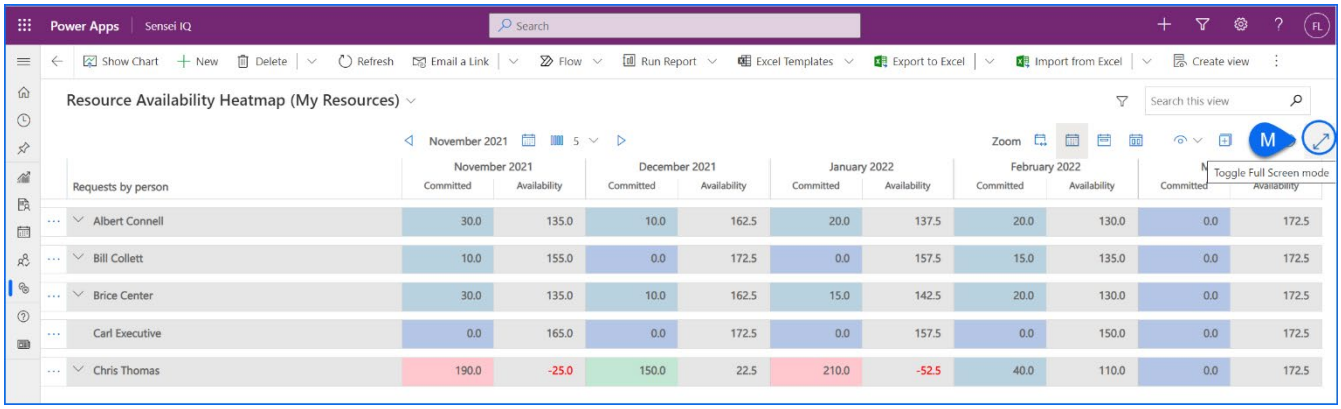
l. Apply the newly added custom personal view from the **My Views** list on the main **Resource Availability Heatmap** page and select **Set current view as my default** from the menu options.



Important: Once the custom personal view is configured using the above steps, the **Resource Availability Heatmap** page will always display the named resources that they are the line manager for.



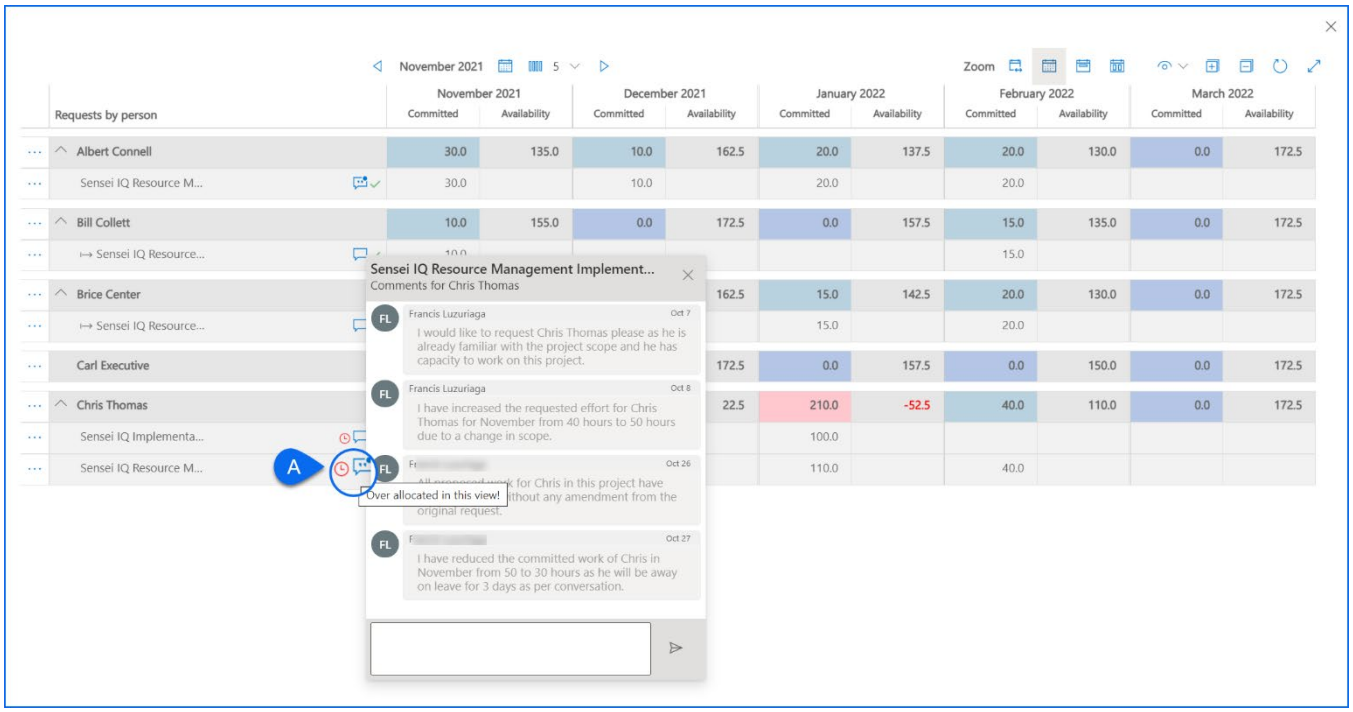
m. Enable the **Toggle Full Screen Mode** option to switch the **Resource Availability Heatmap** screen to focus mode.



n. Click the **Expand All** button to display the second level of rows outlining the project/s under each named resource row on the **Requests by person** view.

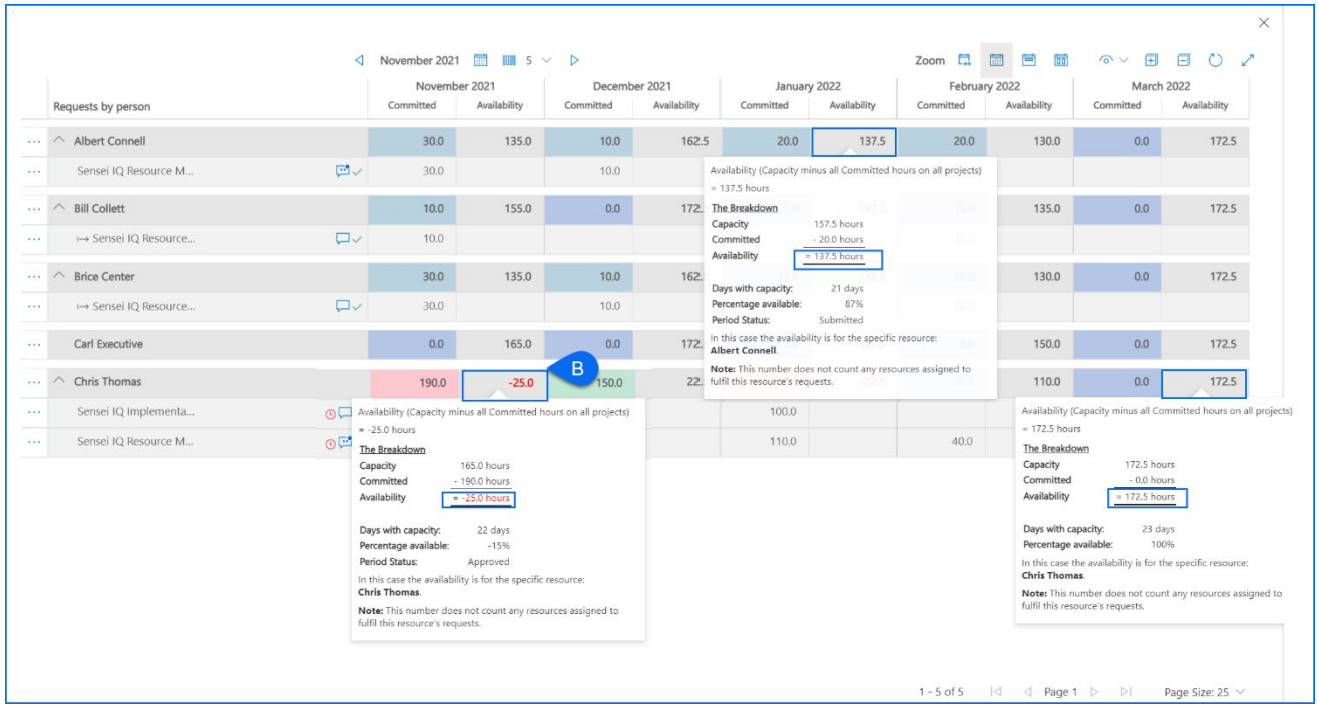
2. EVALUATE WORK ALLOCATION VERSUS AVAILABILITY OF NAMED RESOURCES

a. Select a named resource row where the overallocation indicator appears and review the **attached comments** on each request for contextual information.

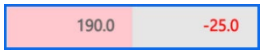
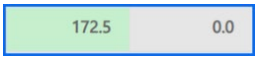
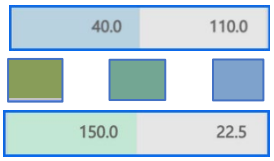


Tip: This page only displays the requests for the visible period that have been **approved** and/or **overwritten by the approver** for named resources that were specifically requested and/or not specifically requested but were allocated to fulfill another request partially or as a substitute to another resource.

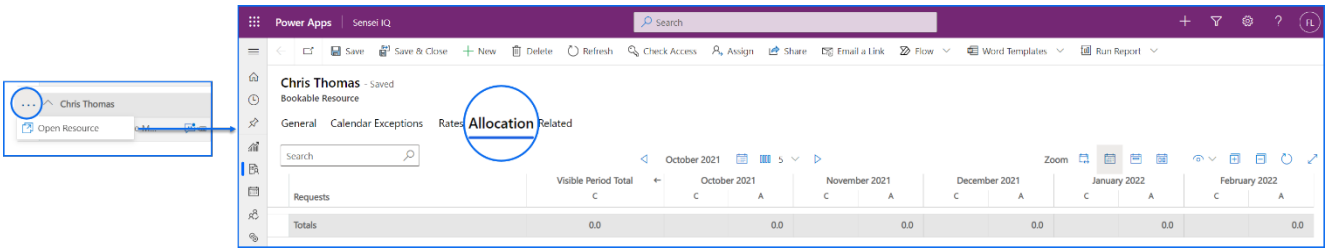
b. Hide the comments and evaluate the overall remaining availability of the named resources individually, particularly where a **negative red** value appears in the **Availability** column or the **tooltip text** when you hover the mouse over each visible period.



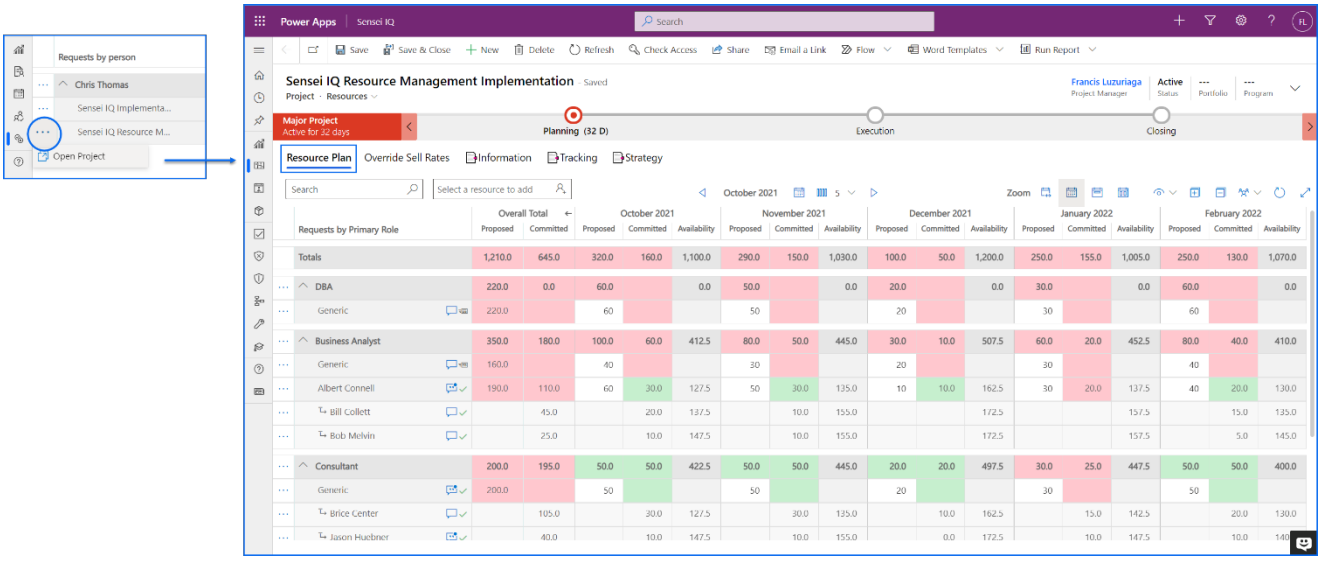
Availability Heatmap Legend:

	Committed work is at least 10% over the resource capacity for the visible period. It means that the resource is **overallocated** and has **negative availability.**
	Committed work is equal to 100% of resource capacity for the visible period. It means that the resource is **fully allocated** and has **zero availability**.
A gradient of blue and green in 10% increments 	Committed work is between 0% and 100% of the resource capacity for the visible period. It means that the resource is **under allocated** and has **low** to **high availability, they are under-utilized.**
	There is no committed work for the visible period. It means that the resource is **not allocated (under-utilized)** and has **full availability.**

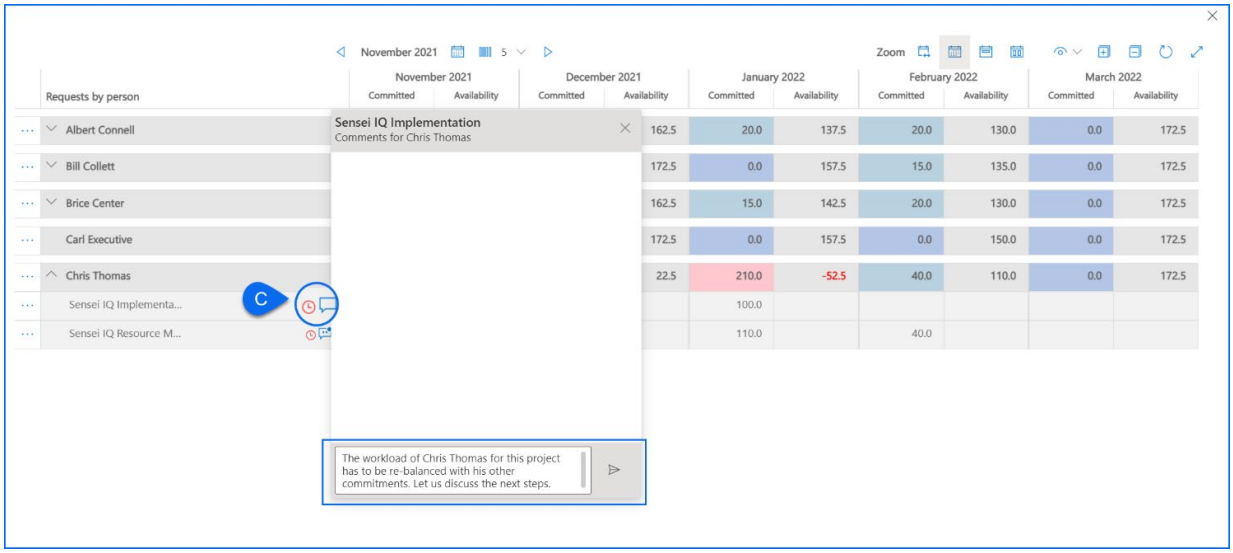
Tip: If you want to further understand the allocation of the selected named resource across other projects, you can click the **Primary Role Menu** button **(...)** in front of the primary resource role name and then the **Open Resource** button to access the **Allocation** tab of the named resource in a separate window.



Tip: If you want to further understand the allocation of the named resources across a particular project, you can click the **Row Menu** button **(...)** in front of the project name and then the **Open Project** button to access the **Resource Plan** tab of the selected project in a separate window.



c. Attach **comments** to the resource request of the project/s with **overallocation** to balance the resource workload with the respective project managers by either reallocating a portion of the committed work to someone else and/or moving it to another period when the allocated resource has more (**recommended**).

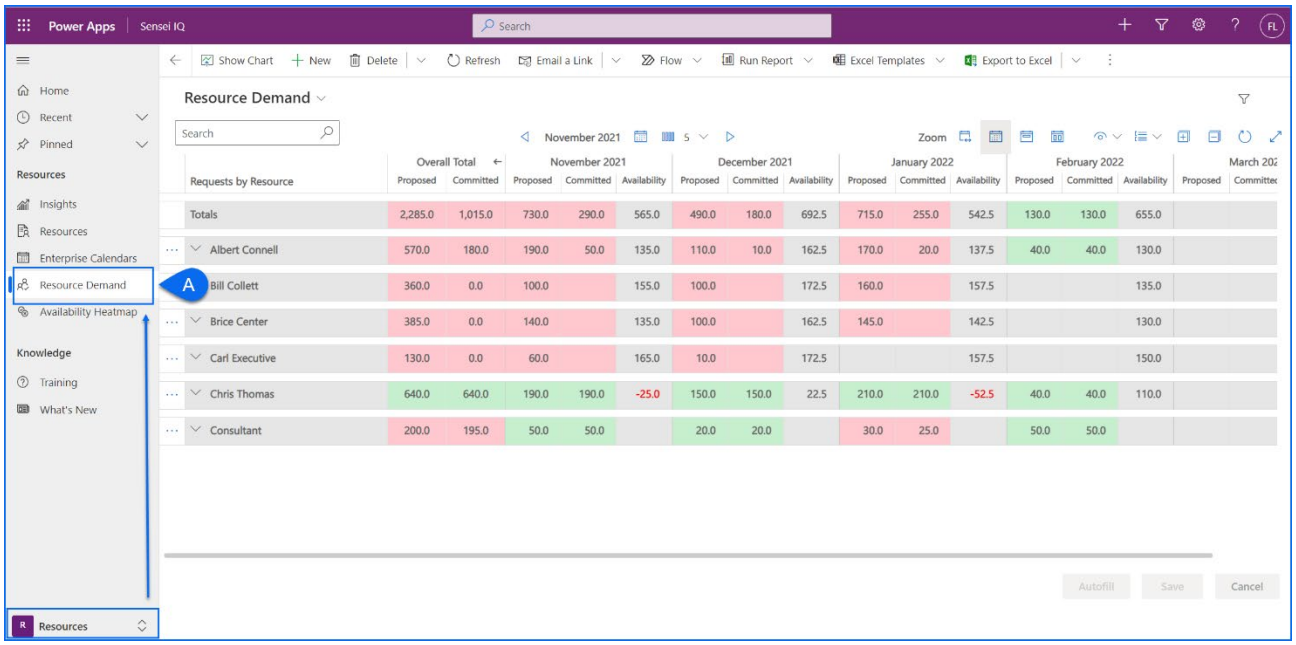


Identify resource allocation from the Resource Demand screen

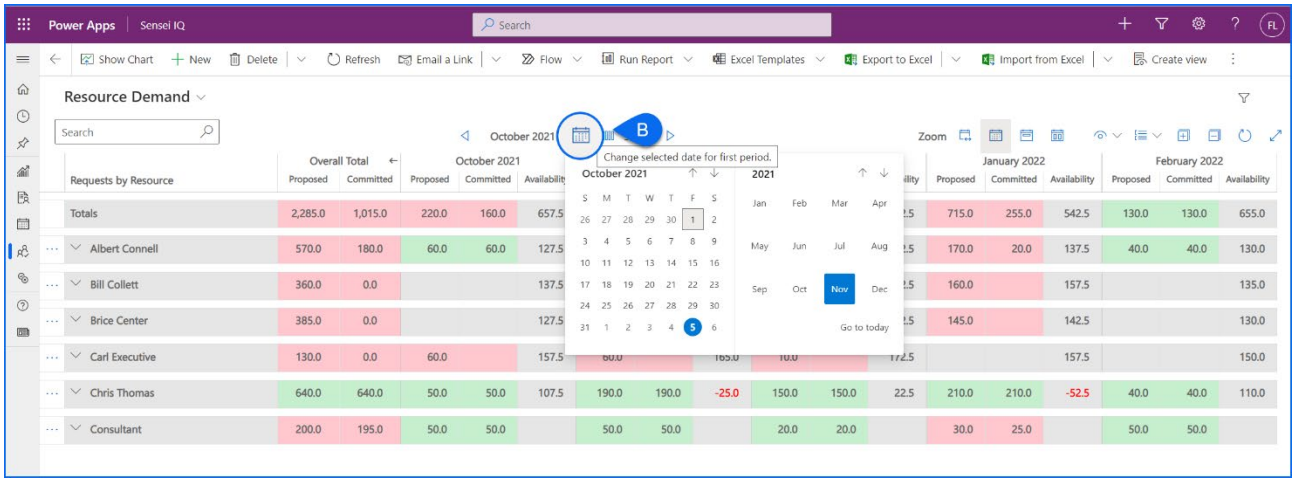
Resource Manager **Resources > Resources > Resource Demand**

1. SET THE RESOURCE DEMAND HORIZON

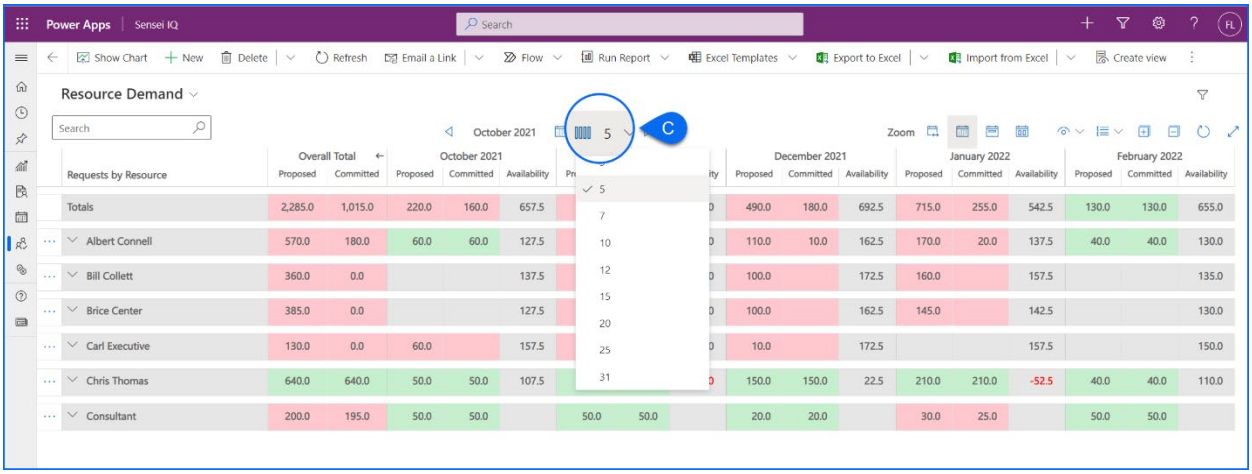
a. Ensure that you are in the **Resources** area and click **Resource Demand** in the **Resources** section.



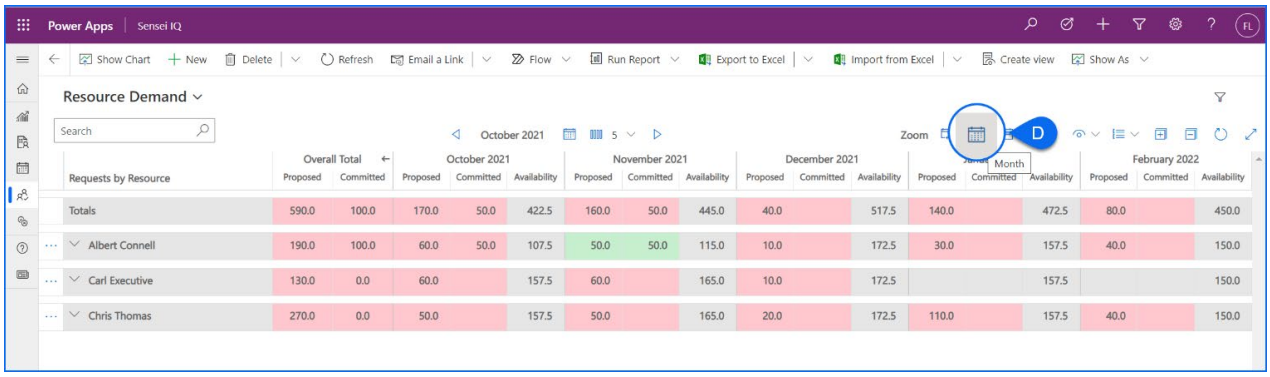
b. Change the selected **date** for the first period that you want to review resource availability from.



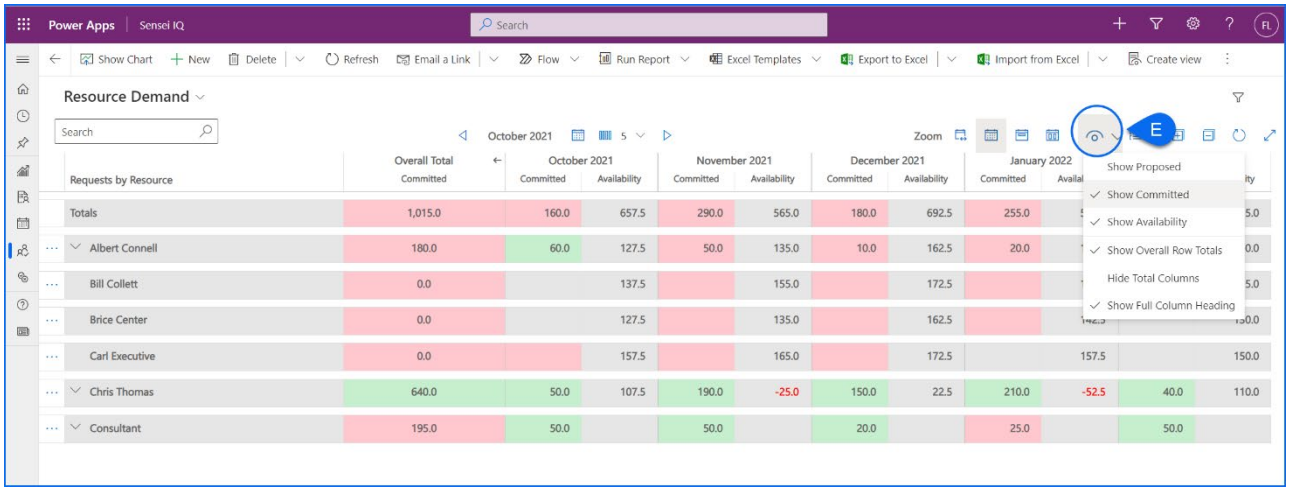
c. Set the number of **periods** you want to be visible on the page.



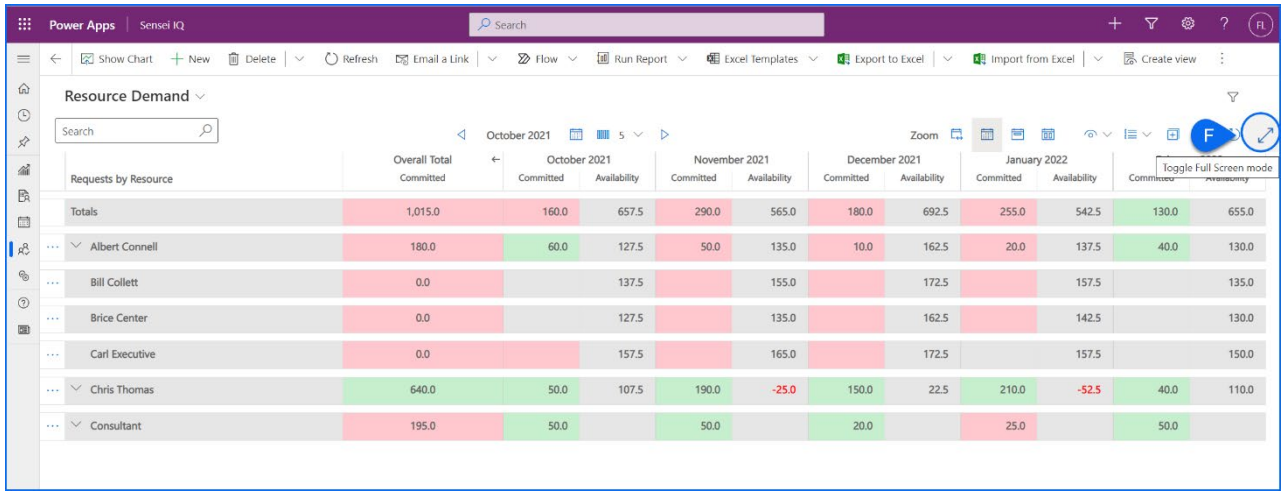
d. Set the **timescale** of the period that you want to review resource availability from using the **Zoom** feature.



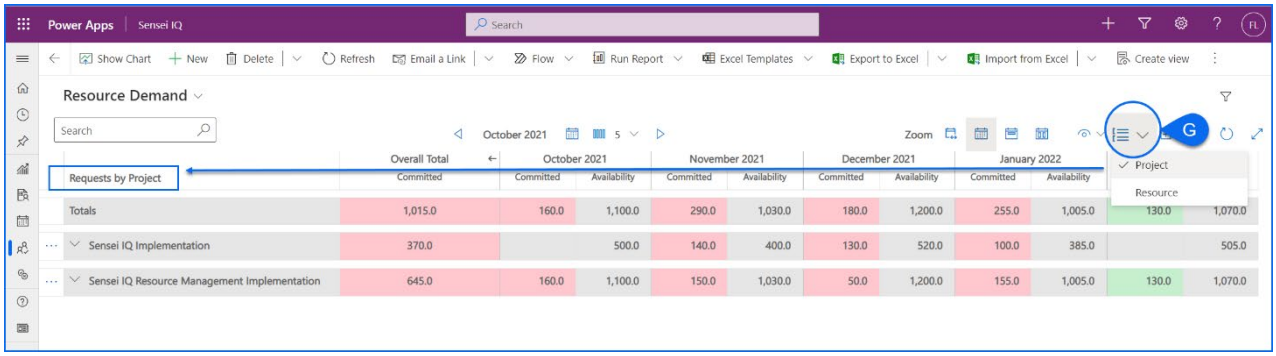
e. Ensure that only **Show Committed, Show Availability, Show Overall Row Totals** and **Show Full Column Heading** options are selected from the **View Options** menu.

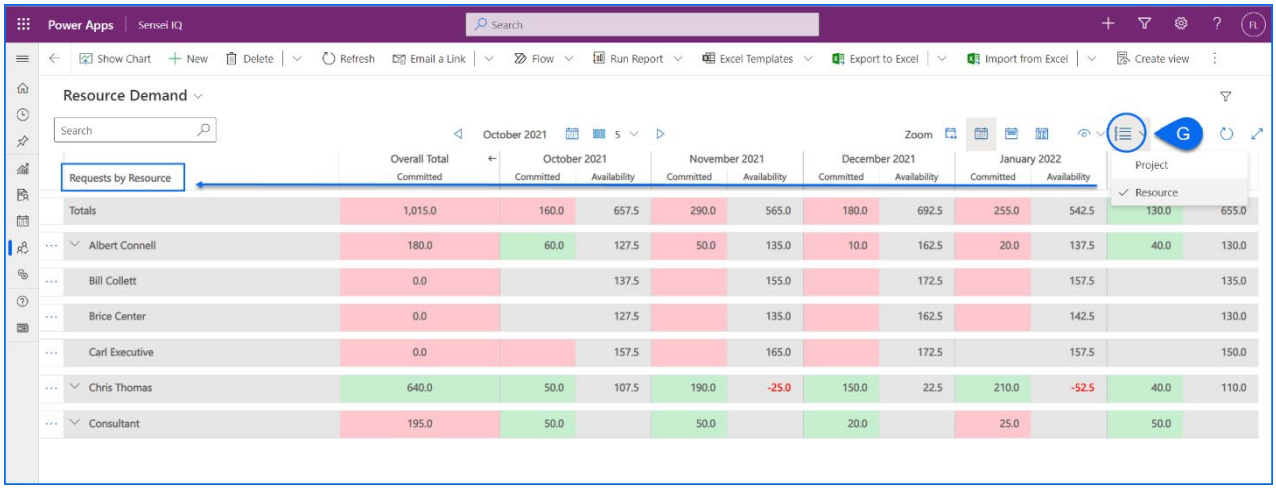


f. Enable the **Toggle Full Screen Mode** option to switch the **Resource Demand** screen to focus mode.

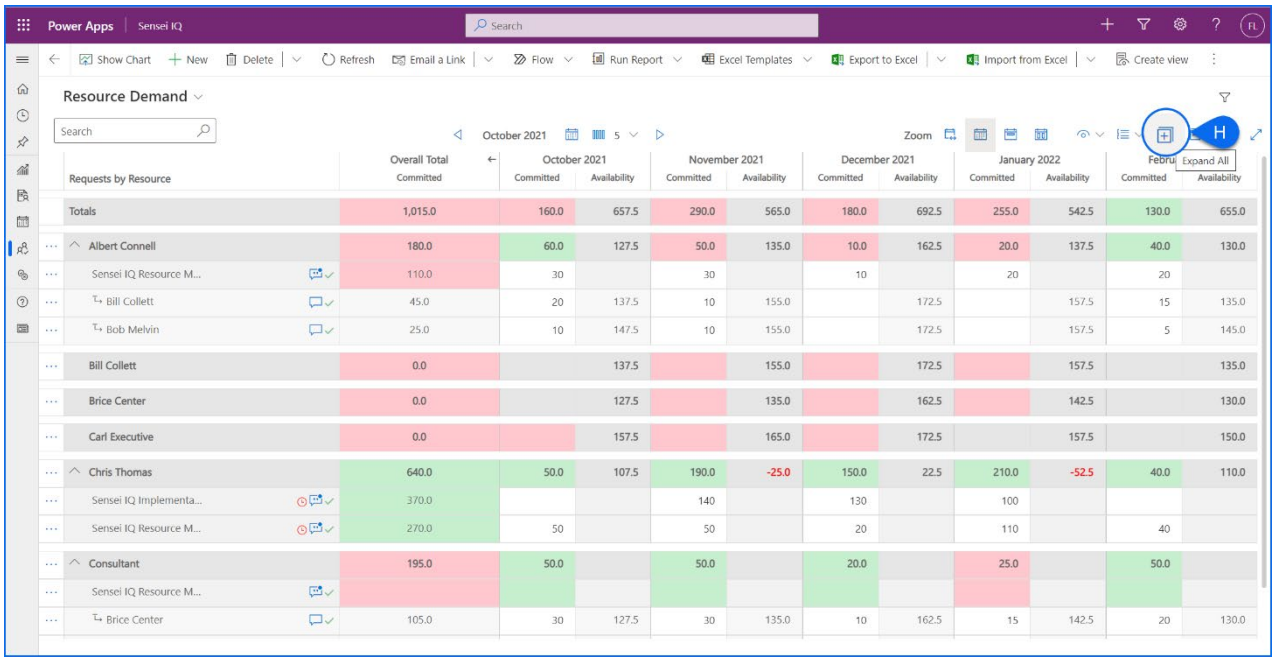


g. Apply either the **Requests by Project** or **Requests by Resource** view (**recommended**) using the **Grouping** menu depending on your preferred method of evaluating the resource capacity and demand.



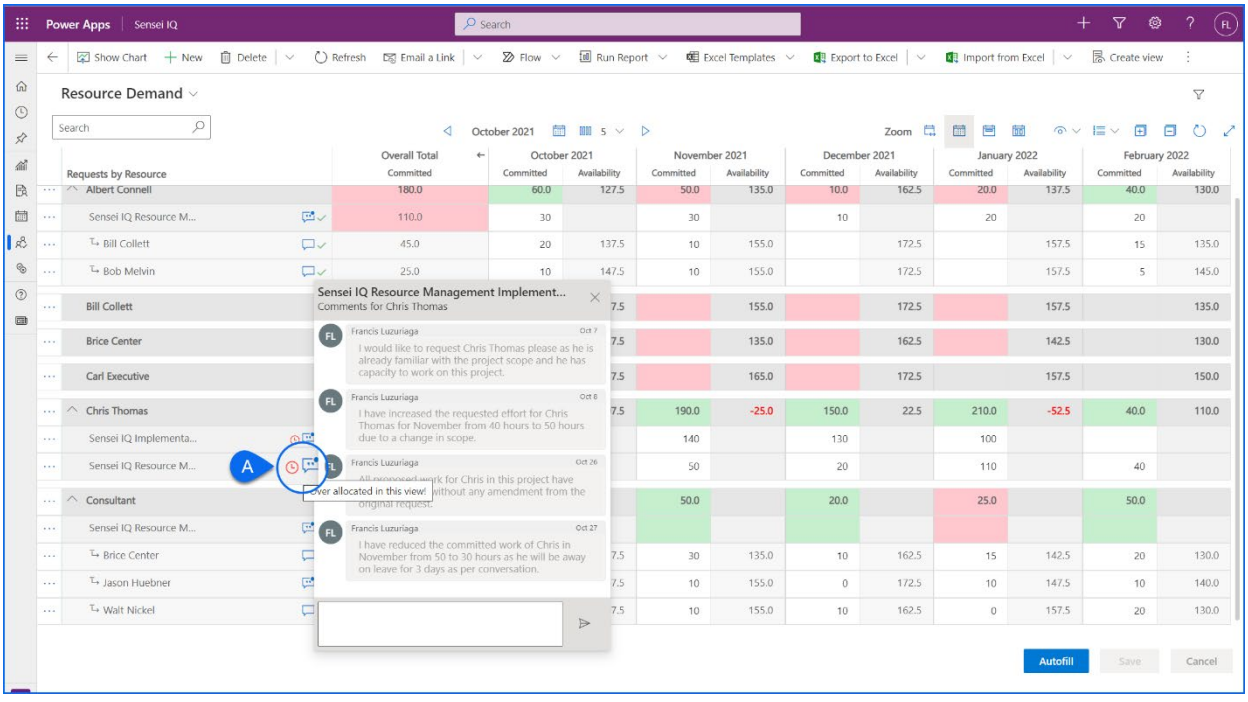


h. Click the **Expand All** button to display the second level of rows outlining the project/s under each named resource row.

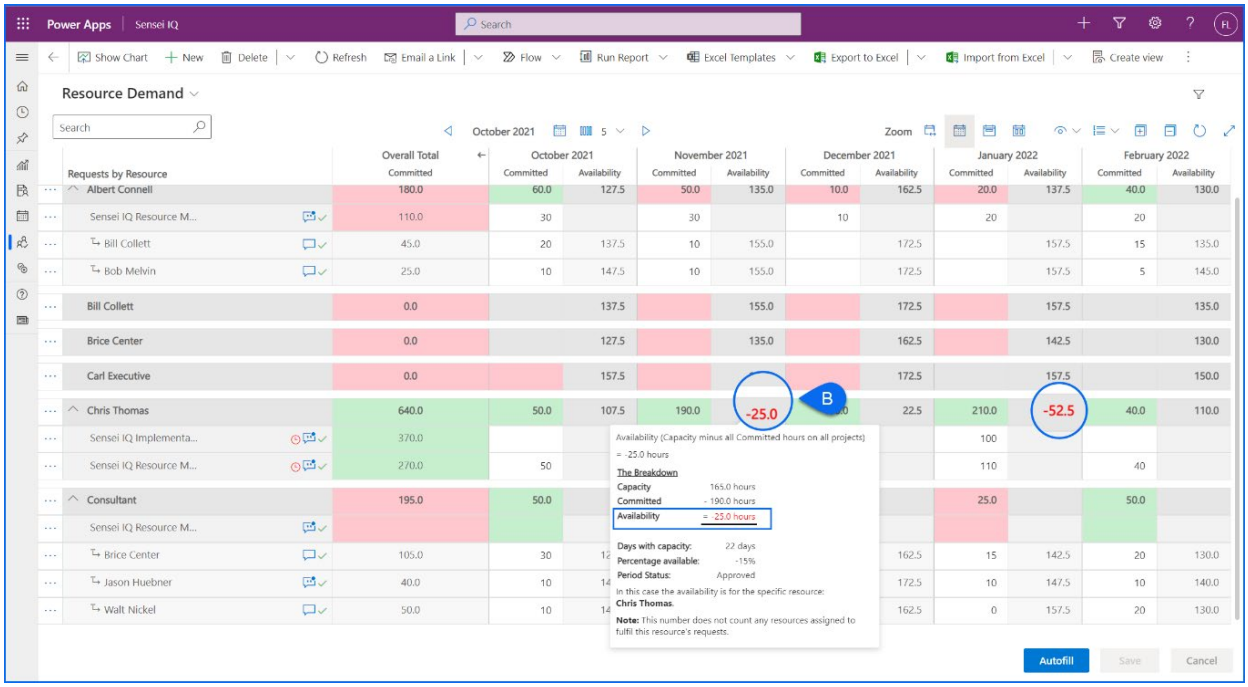


2. EVALUATE WORK ALLOCATION VERSUS AVAILABILITY OF NAMED RESOURCES

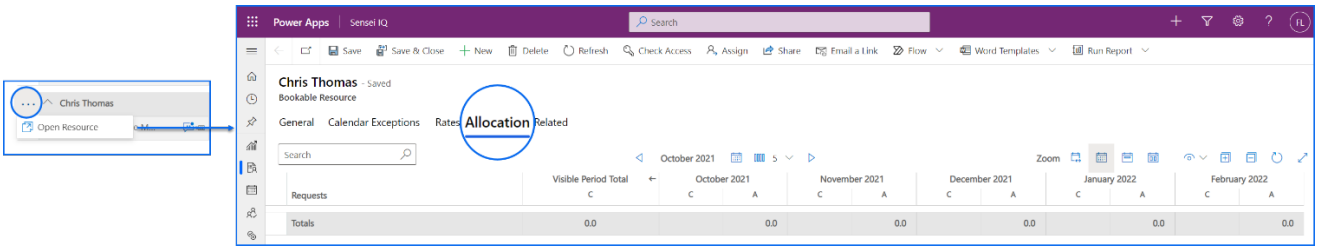
a. Select a named resource row where the overallocation indicator appears and review the **attached comments** on each request for contextual information.



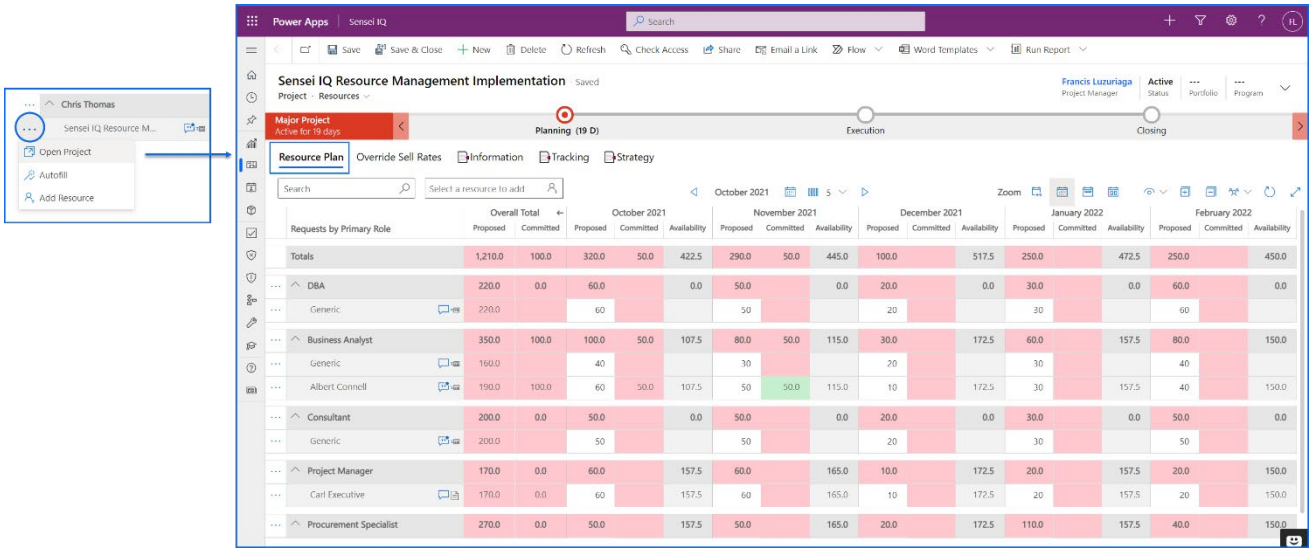
b. Hide the comments and evaluate the overall remaining availability of the named resource individually, particularly where a **negative red** value appears in the **Availability** column or the **tooltip text** when you hover the mouse over each visible period.



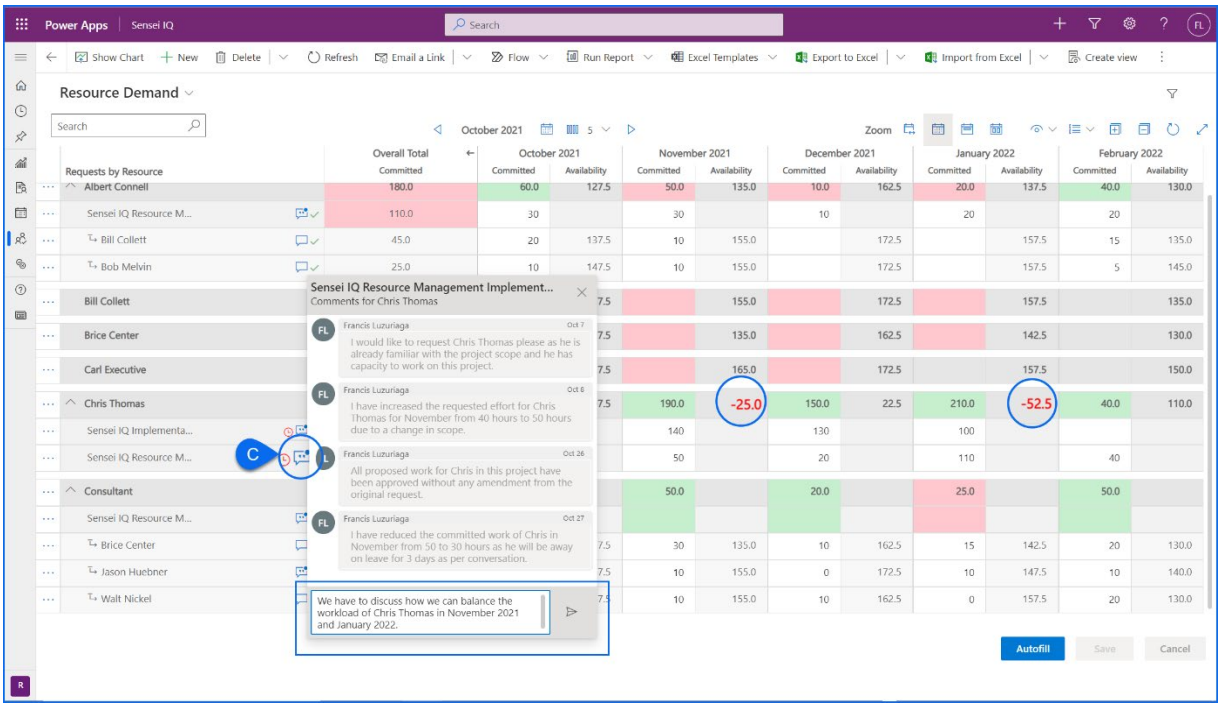
Tip: If you want to further understand the allocation of the selected named resource across other projects, you can click the **Primary Role Menu** button **(...)** in front of the primary resource role name and then the **Open Resource** button to access the **Allocation** tab of the named resource in a separate window.



Tip: If you want to further understand the allocation of the named resources across a particular project, you can click the **Row Menu** button **(...)** in front of the project name and then the **Open Project** button to access the **Resource Plan** tab of the selected project in a separate window.



c. Attach **comments** to the resource request of the project/s with **overallocation** to balance the resource workload with the respective project managers by either reallocating a portion of the committed work to someone else and/or moving it to another period when the allocated resource has more availability (**recommended**).



Tip: Once the resource overallocation is identified, you can resolve, if not minimize, the overallocation in agreement with the respective project managers by following the steps outlined in section **3. Modify an existing fulfilled request for named resources** from a related downloadable titled **JOB AID - Reviewing and approving resource requests.**

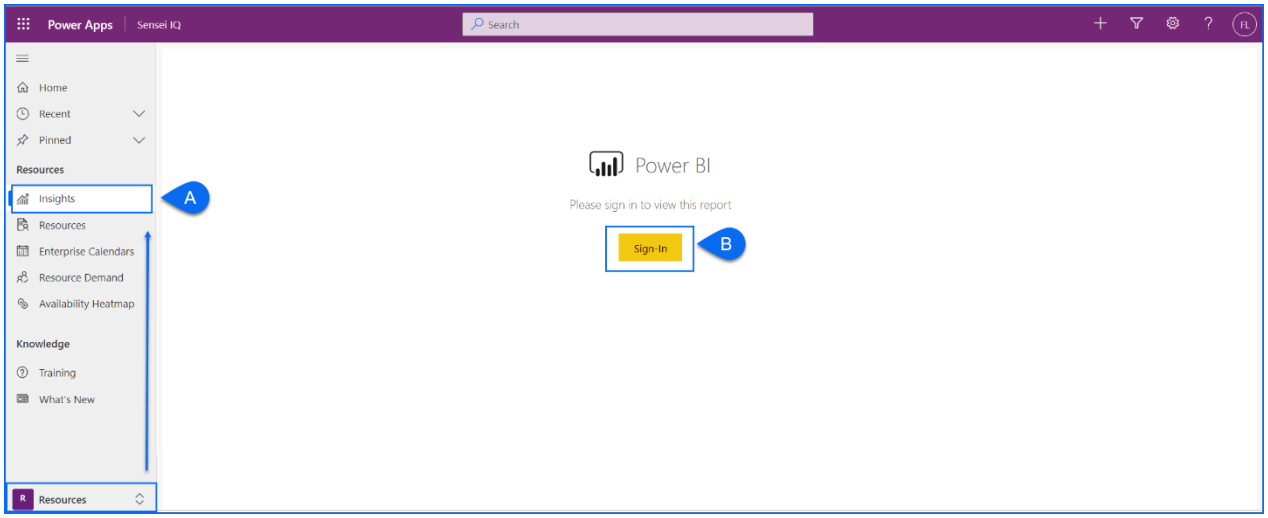
Identify resource overallocation from Insights

Resource Manager **Resources > Resources > Insights**

1. SET THE FILTERS IN THE AVAILABILITY REPORT PAGE

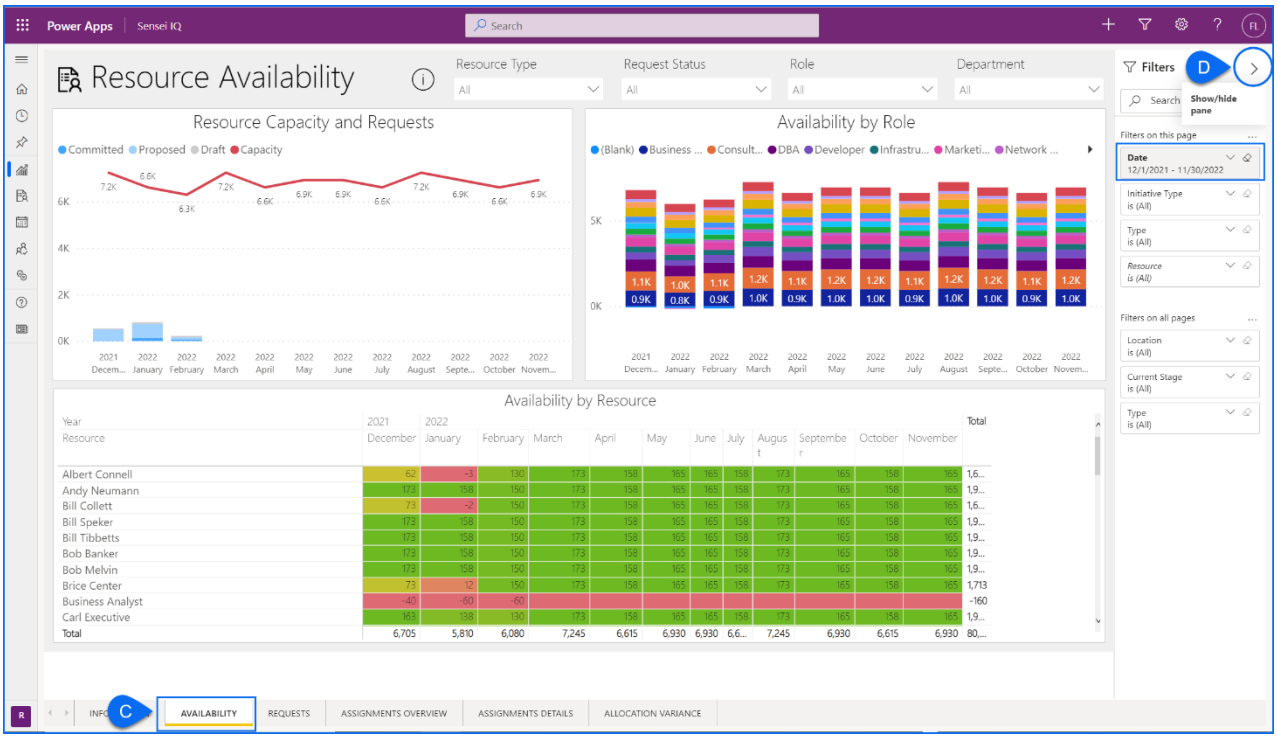
a. Ensure that you are in the **Resources** area and click **Insights** in the **Resources** section.

b. Click the **Sign-in** button (if prompted) to load the pre-configured Power BI report on the page.



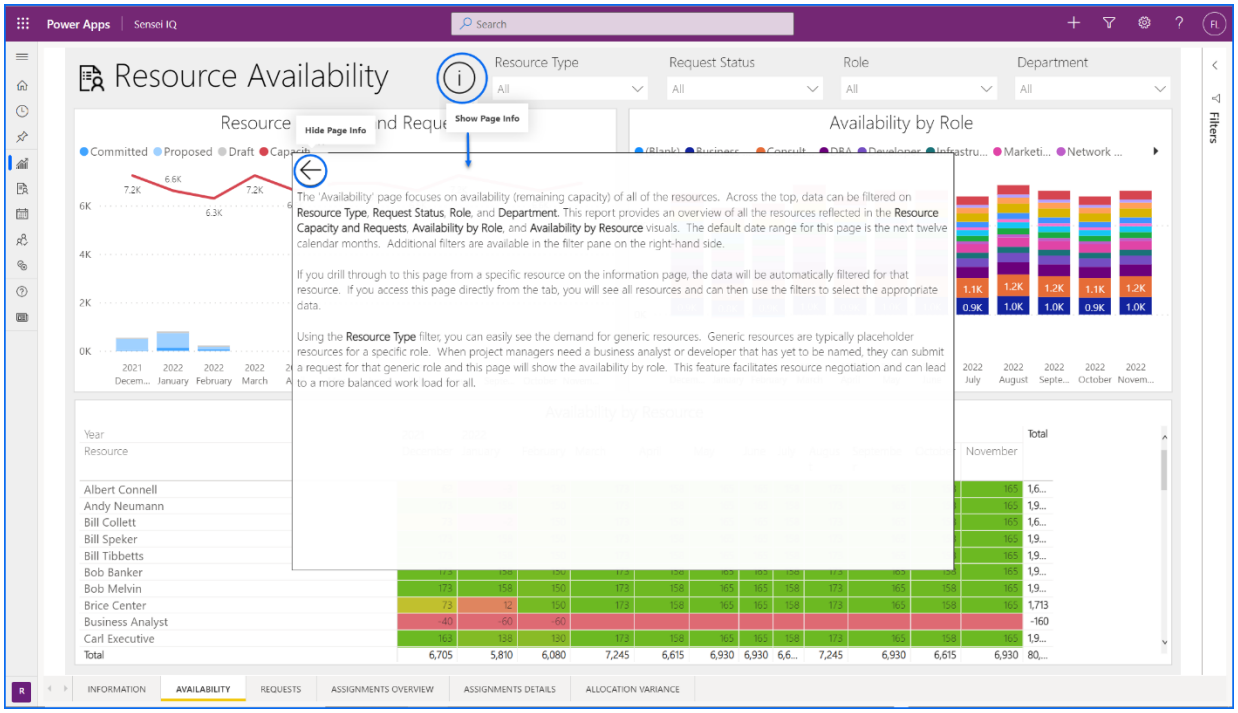
c. Select the **Availability** report page using the page navigation menu at the bottom of the page.

d. Click the **Show/Hide pane** chevron button to display the **Filters** pane on the right-hand side and validate the **date** range of the data displayed on the page.

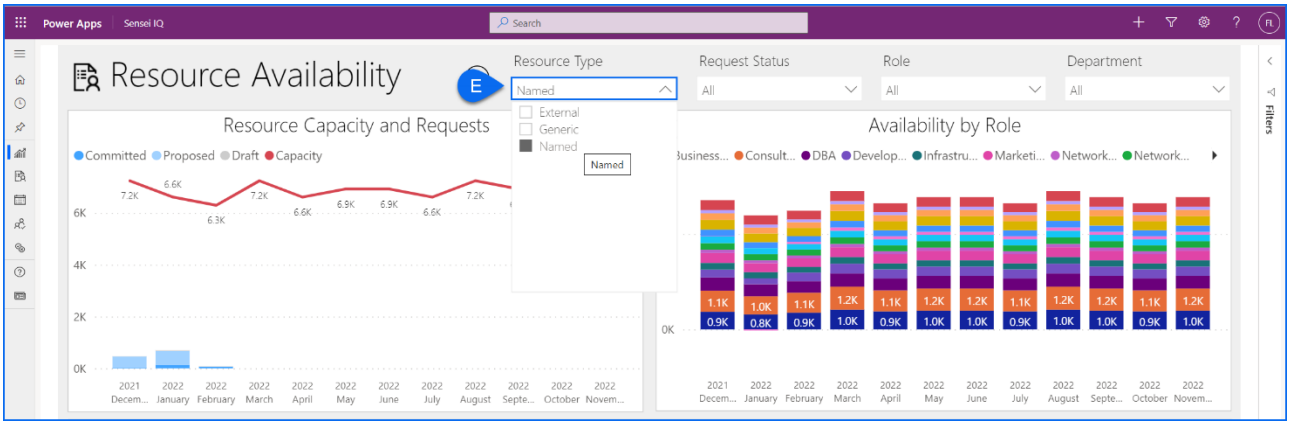


Important: The default date range for this page is the next twelve (12) calendar months.

Tip: Clicking the **Show Page Info** button on each report page allows the user to view a description of the report page (**recommended**).



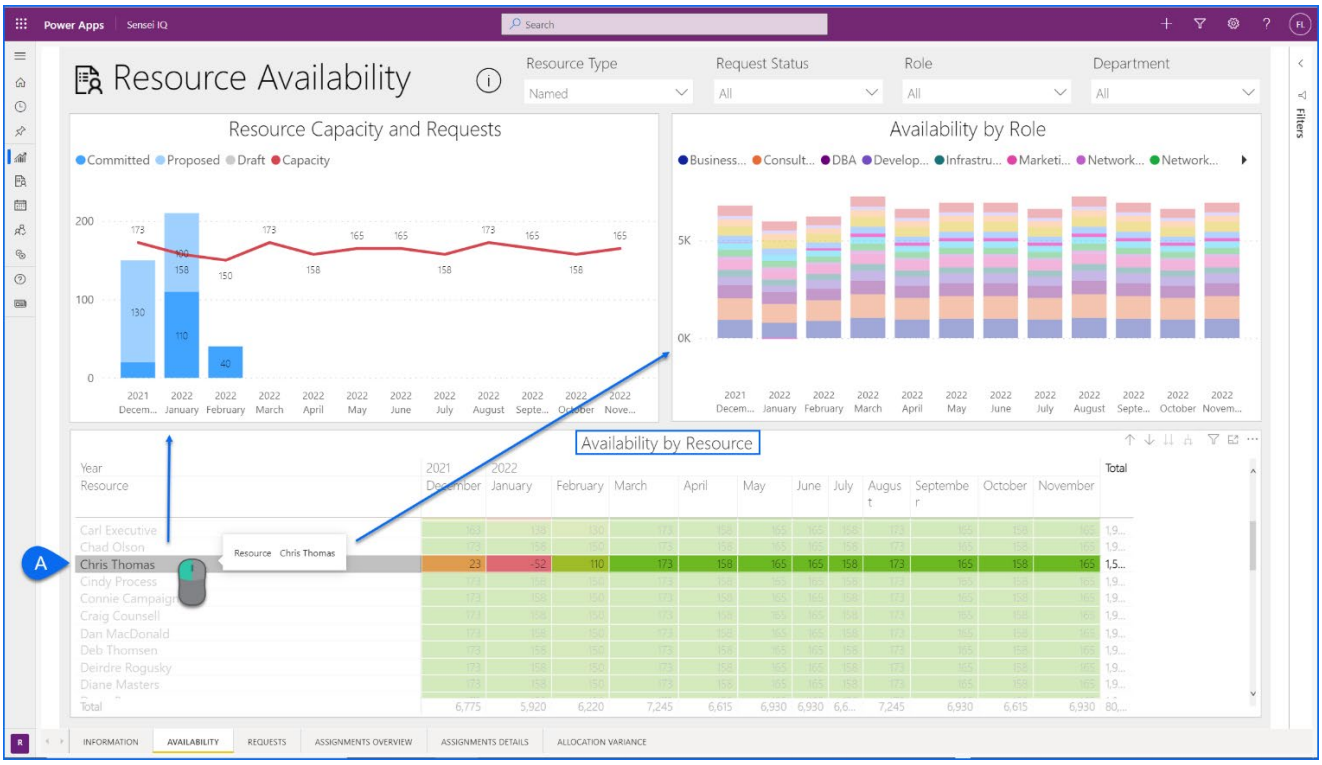
e. Select **Named** from the **Resource Type** filter to focus on the availability of named resources only.



Tip: Across the top of the page, data can also be filtered in the report by **Request Status, Role** and/or **Department**.

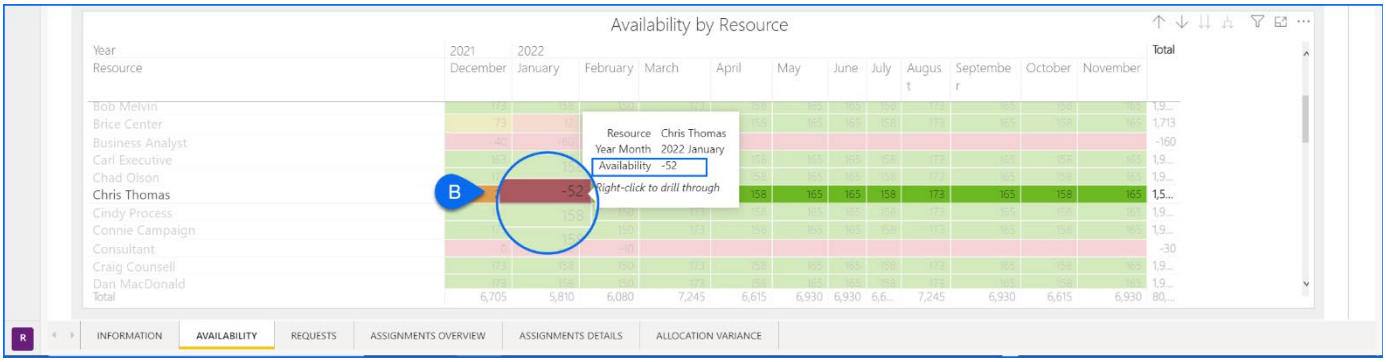
2. EVALUATE WORK ALLOCATION VERSUS AVAILABILITY OF NAMED RESOURCES

a. Ensure that you have selected a named resource (or named resources if you hold the **Ctrl** key on your keyboard to select multiple names) that you want to evaluate the availability of in the **Availability by Resource** visual.

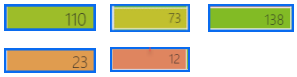


Tip: Clicking a row in the **Availability by Resource** visual cross-filters the data displayed on the other visuals on the page.

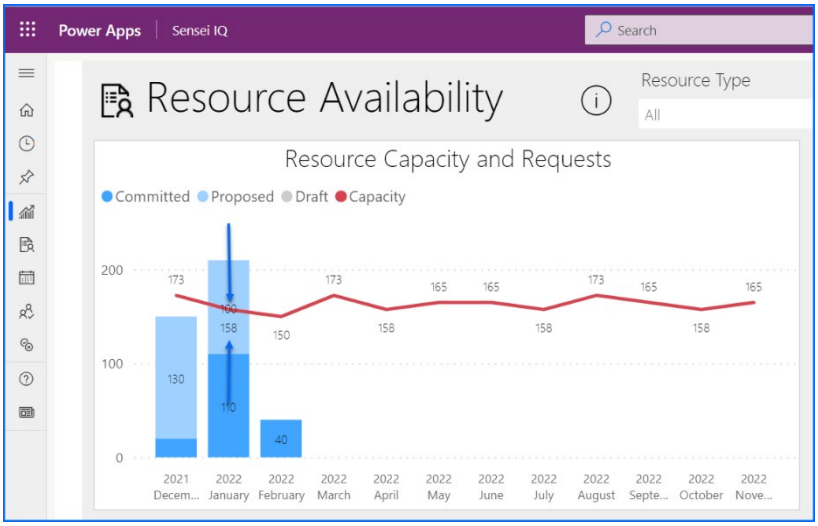
b. Evaluate the overall remaining availability of the selected named resource/s individually, particularly where a **negative value** in a cell highlighted in **red** appears in a **visible period** or the **tooltip text** when you hover the mouse over each visible period.



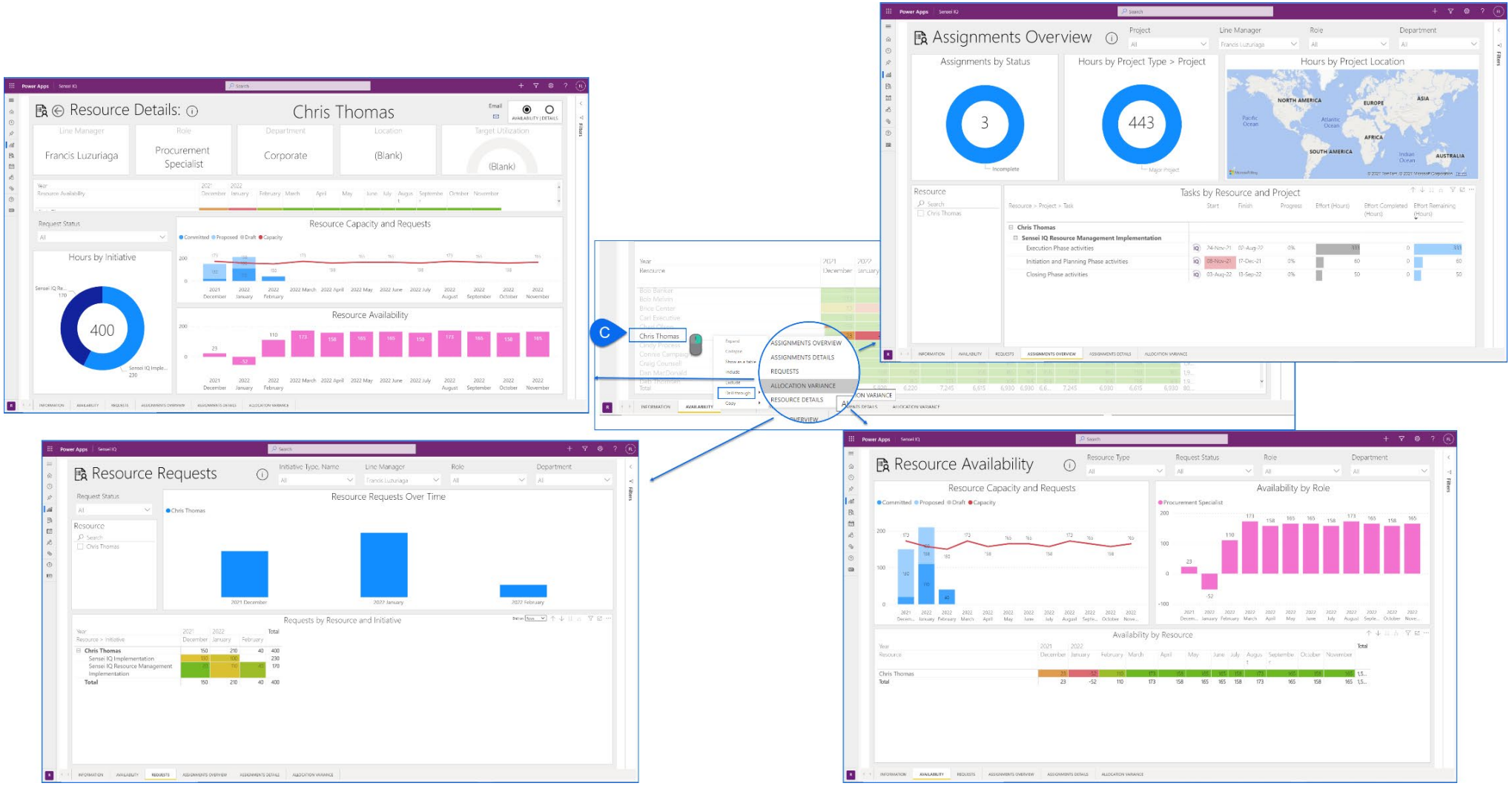
Availability Heatmap Legend:

	Committed work is equal to 100% of resource capacity for the visible period. It means that the resource is **fully allocated** and has **zero availability**.
	Committed work is at least 10% over the resource capacity for the visible period. It means that the resource is **overallocated** and has **negative availability.**
	There is no committed work for the visible period. It means that the resource is **not allocated (under-utilized)** and has **full availability.**
A gradient of red, amber, and green in 10% increments) 	Committed work is between 0% and 100% of the resource capacity for the visible period. It means that resource is **under allocated** and has **low** to **high availability, the resource is (under-utilized)**.

Tip: Additionally, if the resource requests, particularly *committed work* displayed as a stacked bar chart has exceeded the **red** resource capacity line in the **Resource Capacity and Requests** visual, it means there is resource overallocation for that period. Depending on your organizational rules, line managers are typically required to monitor the balanced workload against the capacity of their resources across all projects.

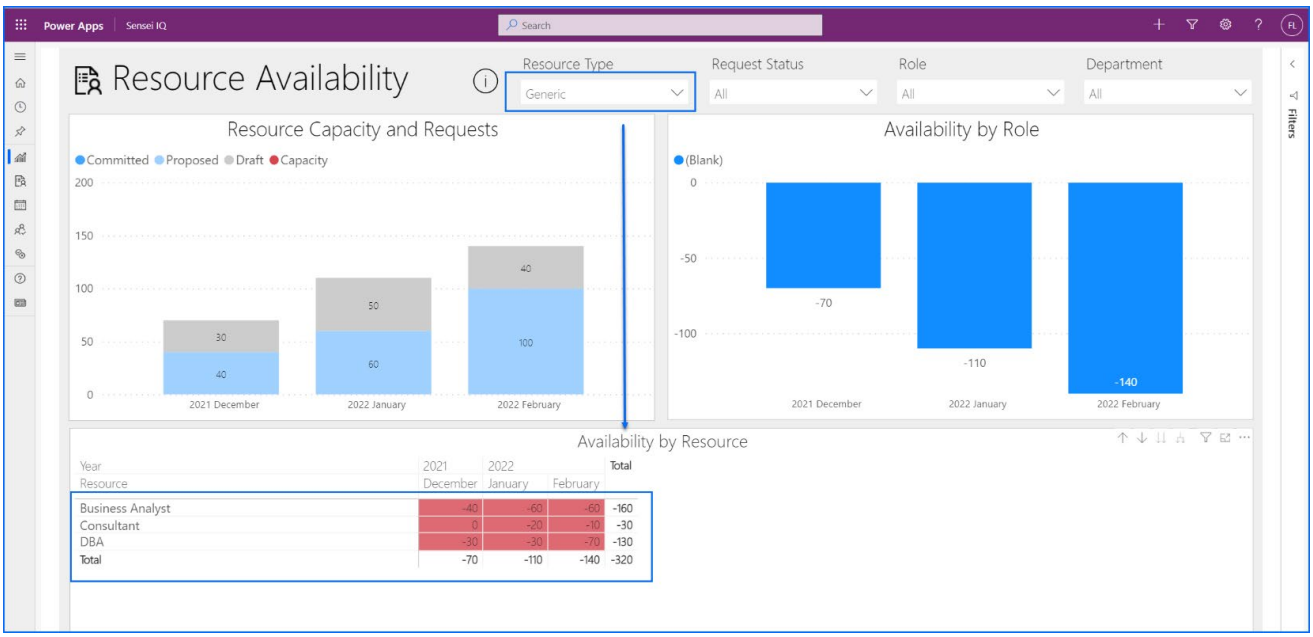


c. If you want to further investigate on the resource overallocation, right-click on the named resource from the **Availability by Resource** visual and select a report page from the **Drill through** options depending on your area of interest.

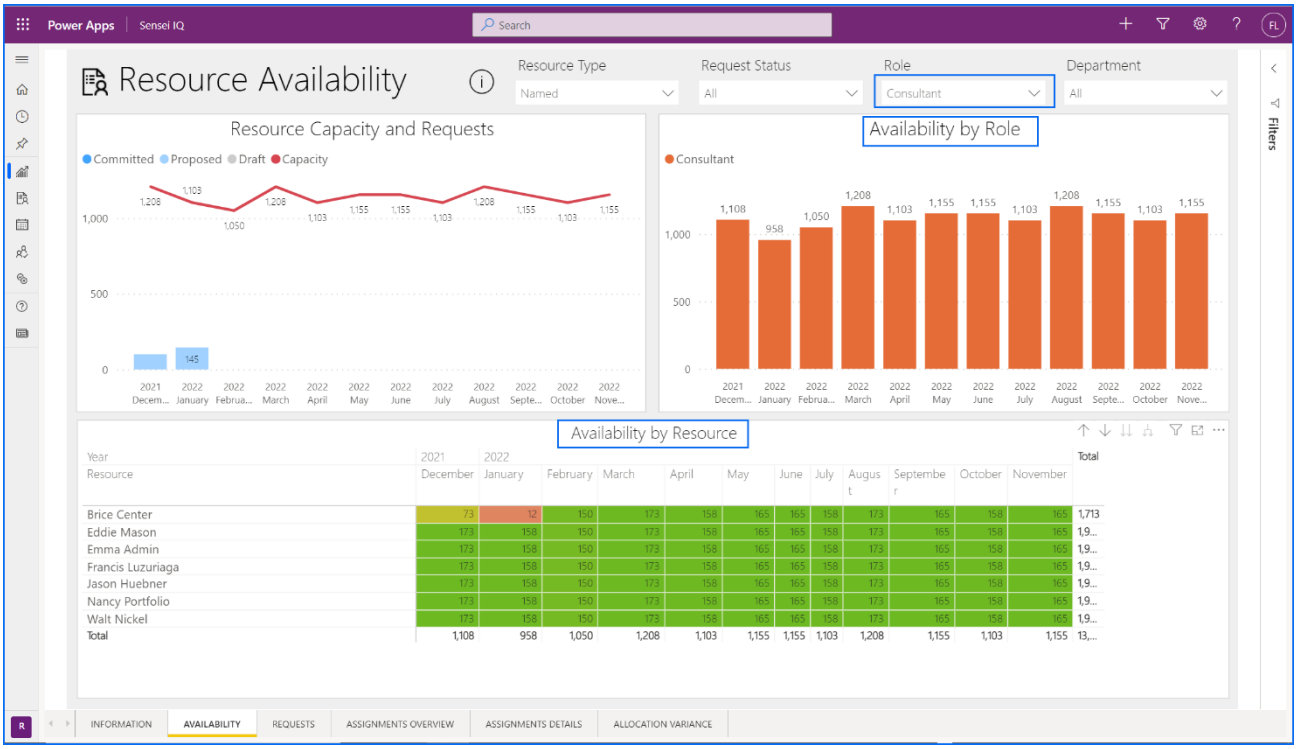


Tip: If you drill through to each of these report pages from the **Availability** report page, the data will be automatically filtered for that selected resource only across the selected page from the **Drill through** options.

Tip: Using the **Resource Type** filter, you can easily see the demand for the generic resources. **Generic resources** are typically placeholder resources for a specific role. Say, when project managers need a business analyst or a consultant that has yet to be specified, they typically submit a request for that generic role and this page will show the availability by role.



Important: Using the **Role** filter, you can easily see the availability of named resources mapped to the selected **primary role** individually from the filtered data in the **Availability by Resource** visual, or the roll-up data in the **Availability by Role** visual for the next twelve (12) calendar months. This feature allows your organization to facilitate forward planning of resource allocations across projects and making informed decisions on recruitment (or staffing) in the event of skilled resource shortage.

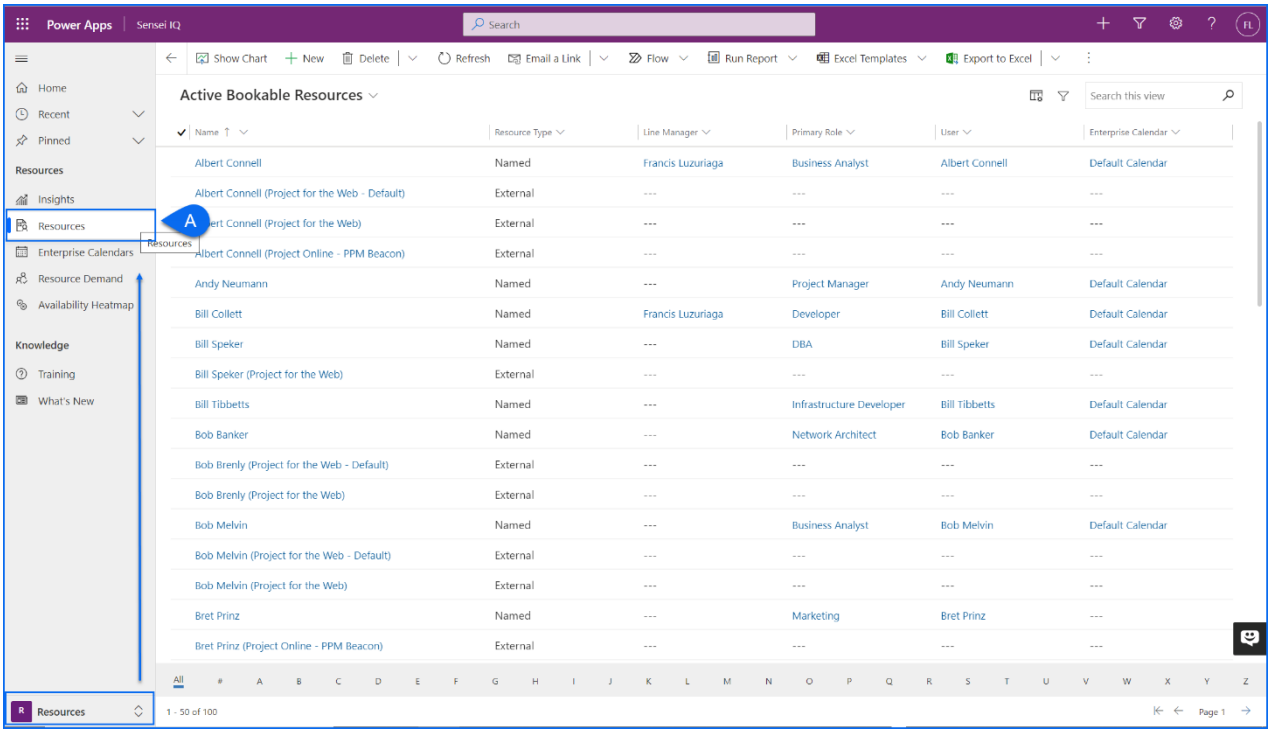


Identify resource allocation from the Allocation tab

Resource Manager **Resources > Resources > Allocation**

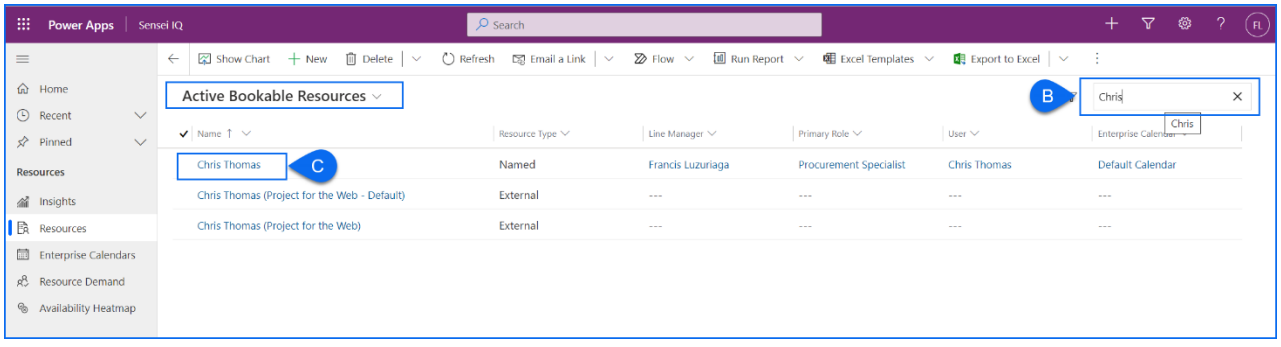
1. SET THE RESOURCE ALLOCATION HORIZON

a. Ensure that you are in the **Resources** area and click **Resources** in the **Resources** section.

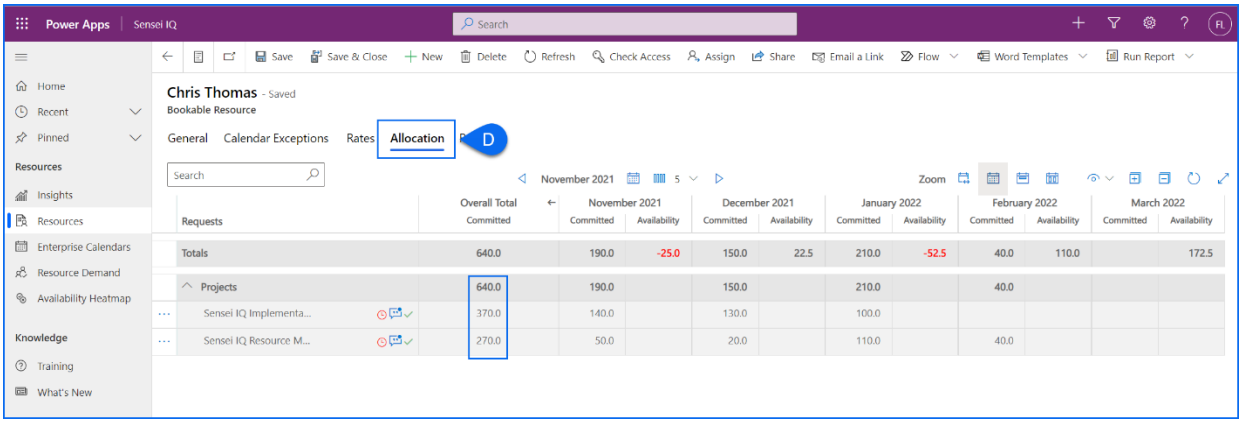


b. Use the **Search this view** box to look up the named resource from the **Active Bookable Resources** view.

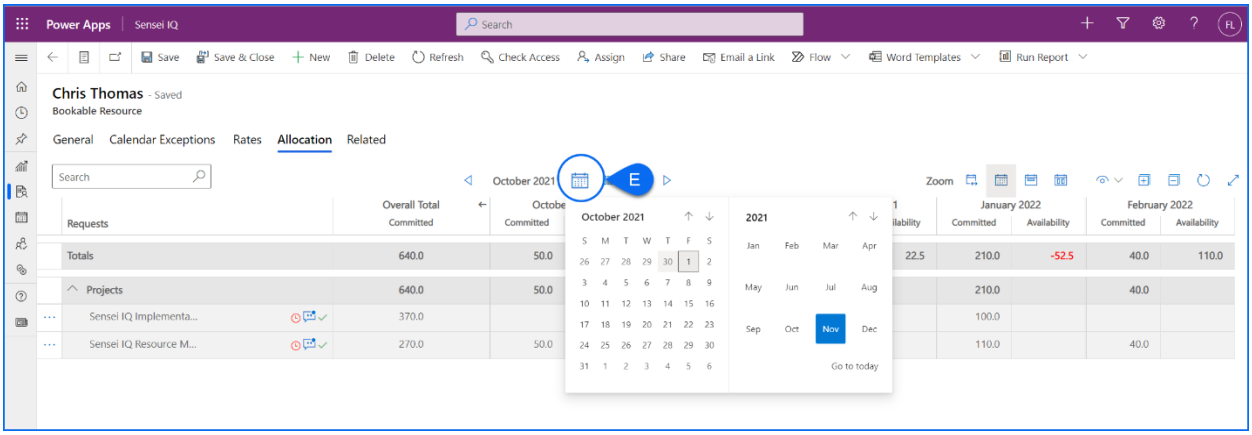
c. Select the named resource in the **Name** column from the search results displayed on the page.



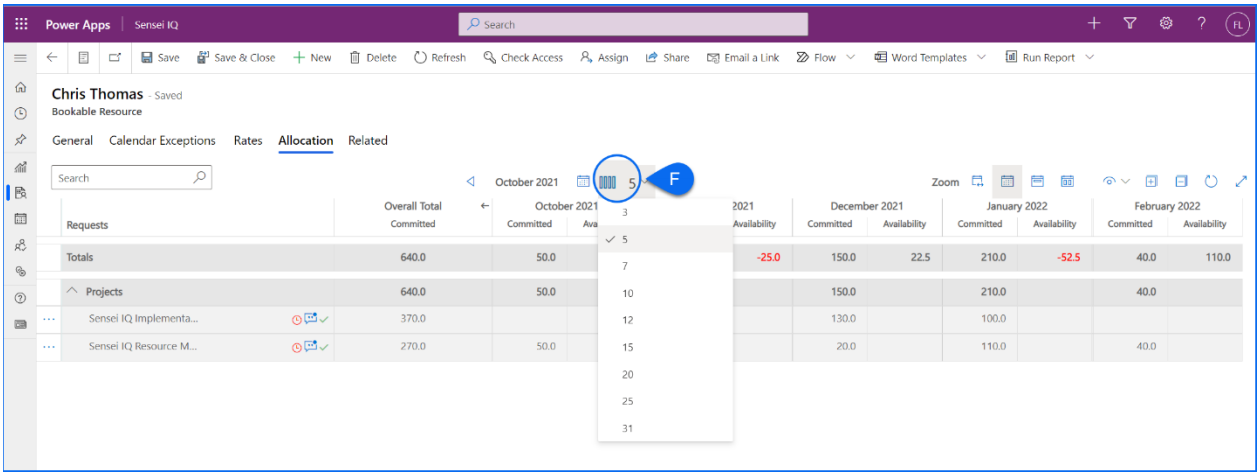
d. Once the **bookable resource record** is open, click the **Allocation** tab to display the **Committed** hours of the named resource across all projects.



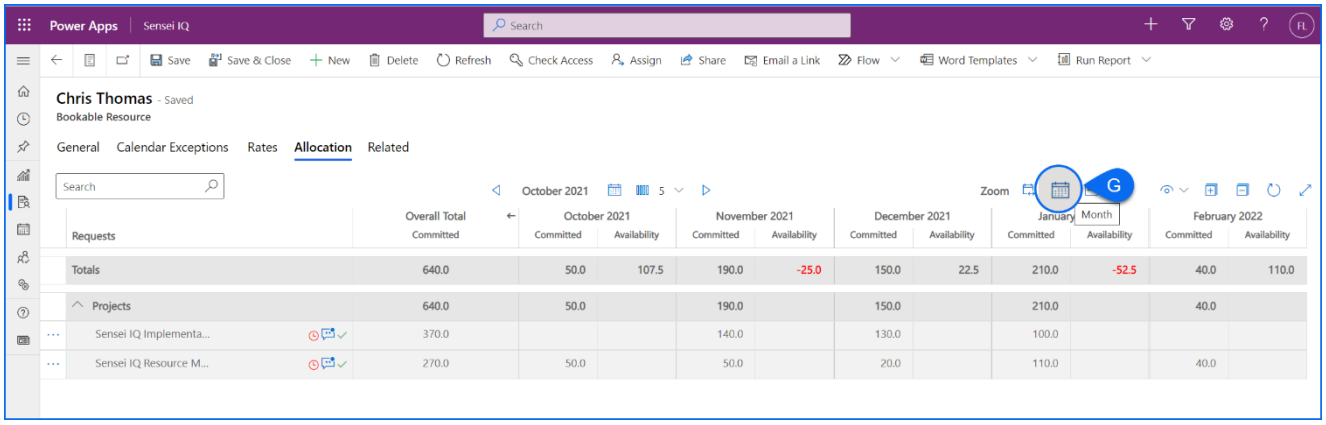
e. Change the selected **date** for the first period that you want to review resource allocation from.



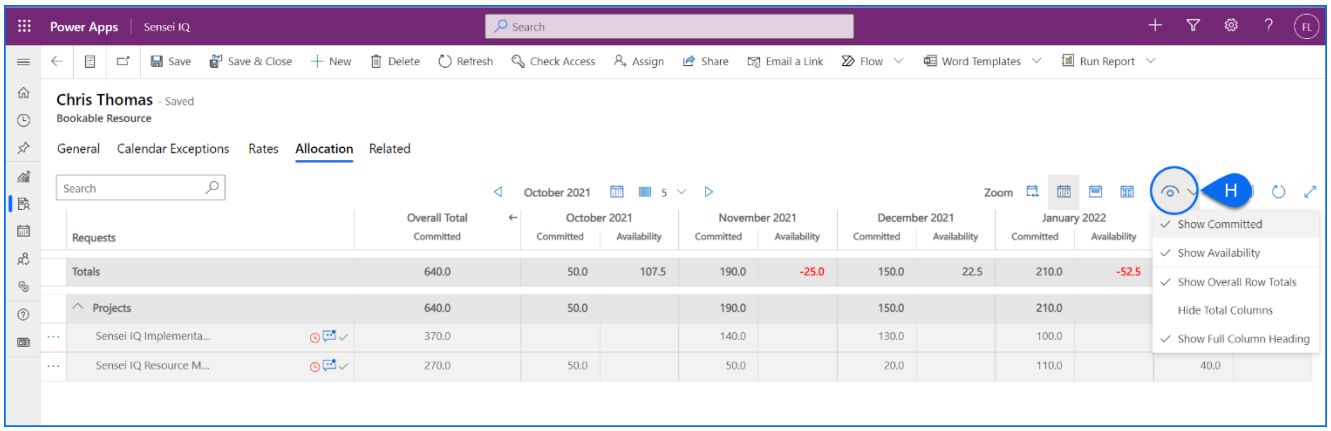
f. Set the number of **periods** you want to be visible on the page.



g. Set the **timescale** of the period that you want to review resource availability from using the **Zoom** feature.

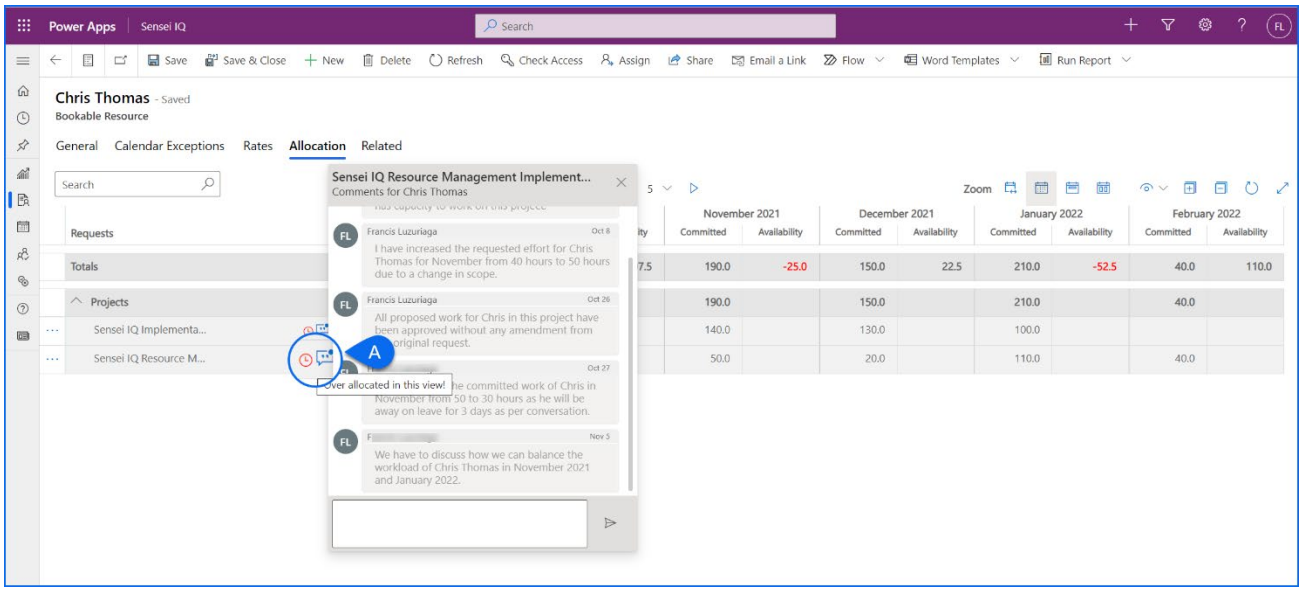


h. Ensure that **Show Committed, Show Availability, Show Overall Row Totals** and **Show Full Column Heading** options are selected from the **View Options** menu.

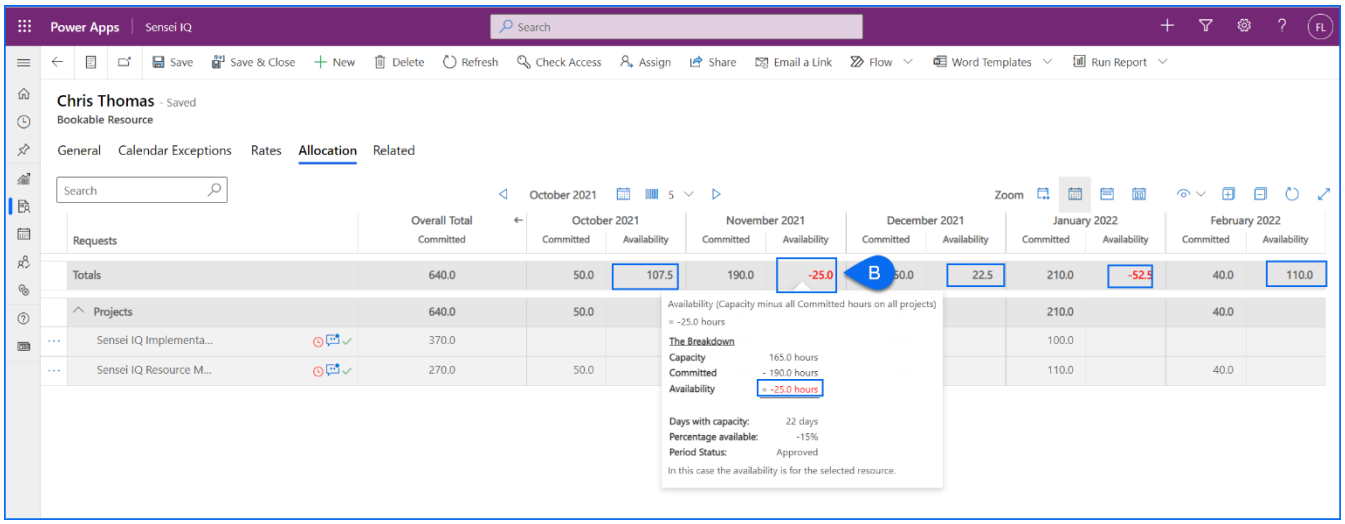


2. EVALUATE WORK ALLOCATION VERSUS AVAILABILITY OF NAMED RESOURCES

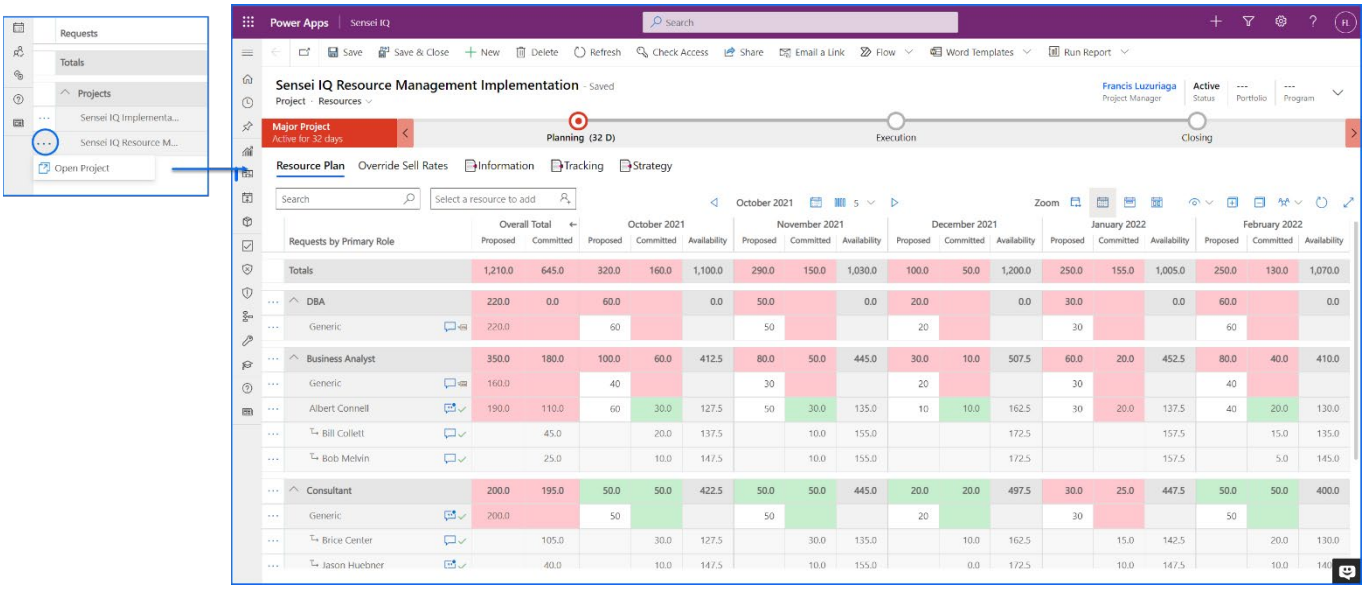
a. Select a project name row where the overallocation indicator appears and review the **attached comments** on each request for contextual information.



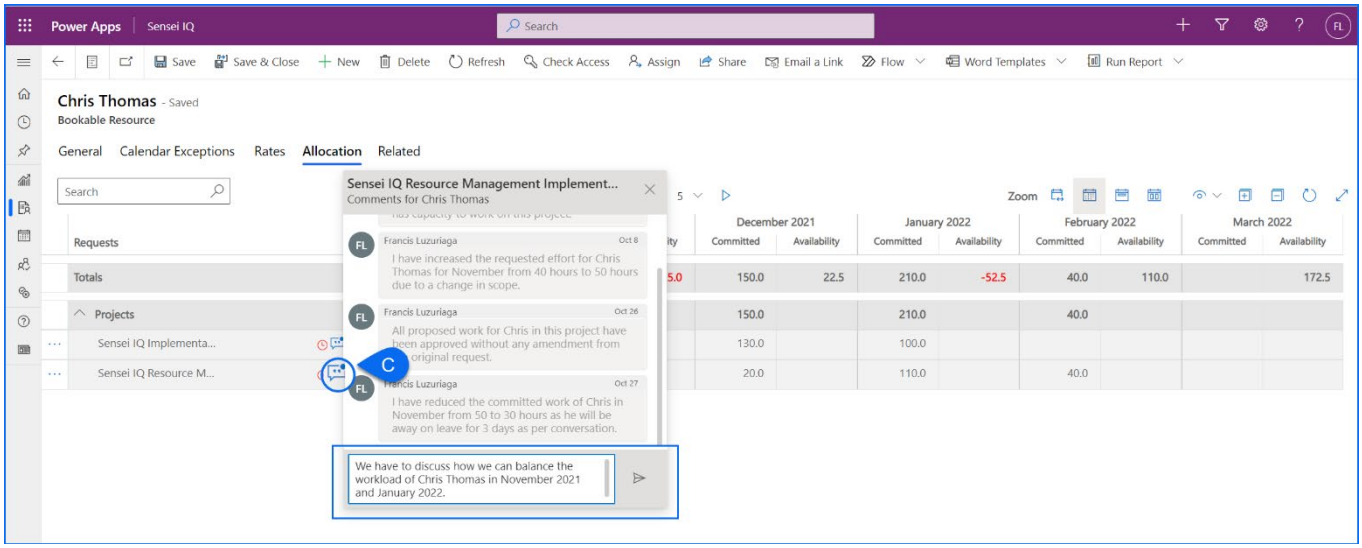
b. Hide the comments and evaluate the overall remaining availability of the named resource, particularly where a **negative red** value appears in the **Availability** column or the **tooltip text** when you hover the mouse over each visible period.



Tip: If you want to further understand the allocation of the named resources across a particular project, you can click the **Row Menu** button **(...)** in front of the project name and then the **Open Project** button to access the **Resource Plan** tab of the selected project in a separate window.



c. Attach **comments** to the resource request of the project/s with **overallocation** to balance the resource workload with the respective project managers by either reallocating a portion of the committed work to someone else and/or moving it to another period when the allocated resource has more availability (**recommended**).



Tip: Once the resource overallocation is identified, you can resolve, if not minimize, the overallocation in agreement with the respective project managers by following the steps outlined in section **3. Modify an existing fulfilled request for named resources** from a related downloadable titled **JOB AID - Reviewing and approving resource requests.**

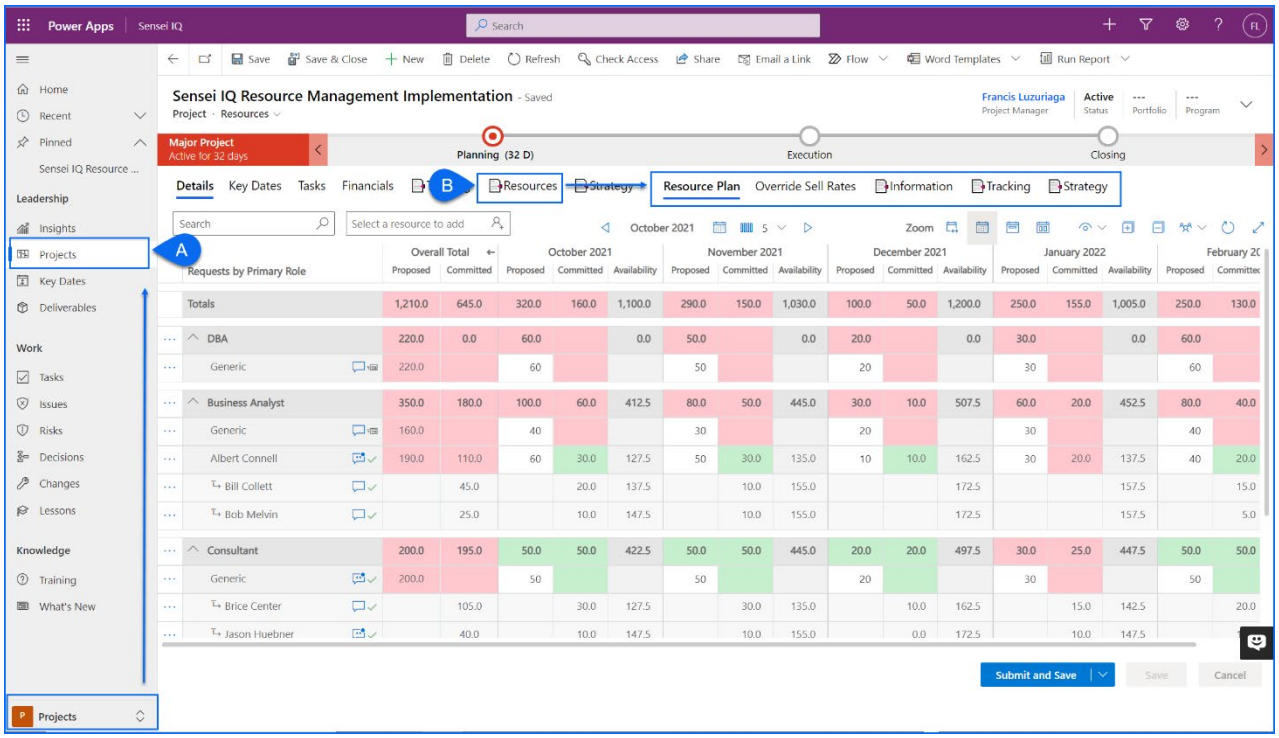
Identify resource allocation from the Resource Plan tab

Resource Manager **Projects > Leadership > Projects > Resources > Resource Plan**

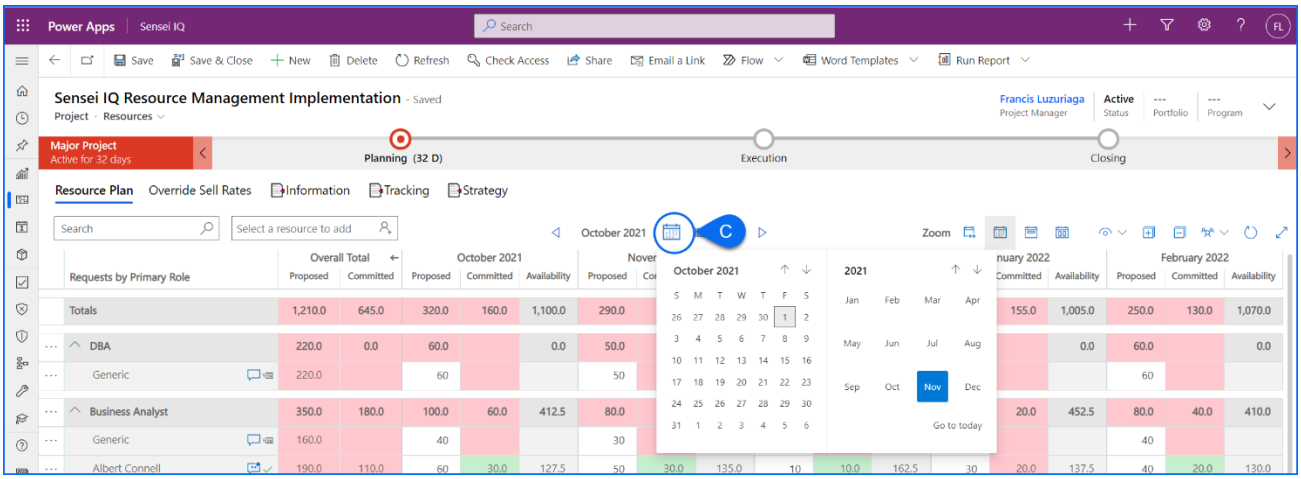
1. SET THE RESOURCE PLAN HORIZON

a. Ensure you are in the **Project** area and click **Projects** in the **Leadership** section.

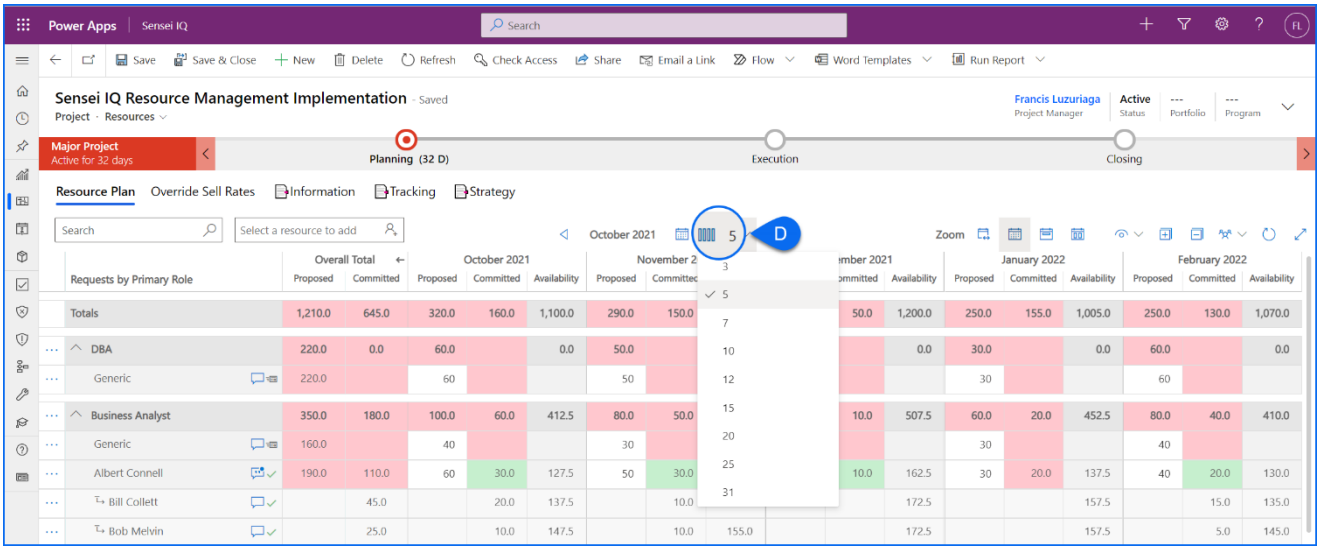
b. Open the project record then expand the **Resource** segment and navigate to the **Resource Plan** tab.



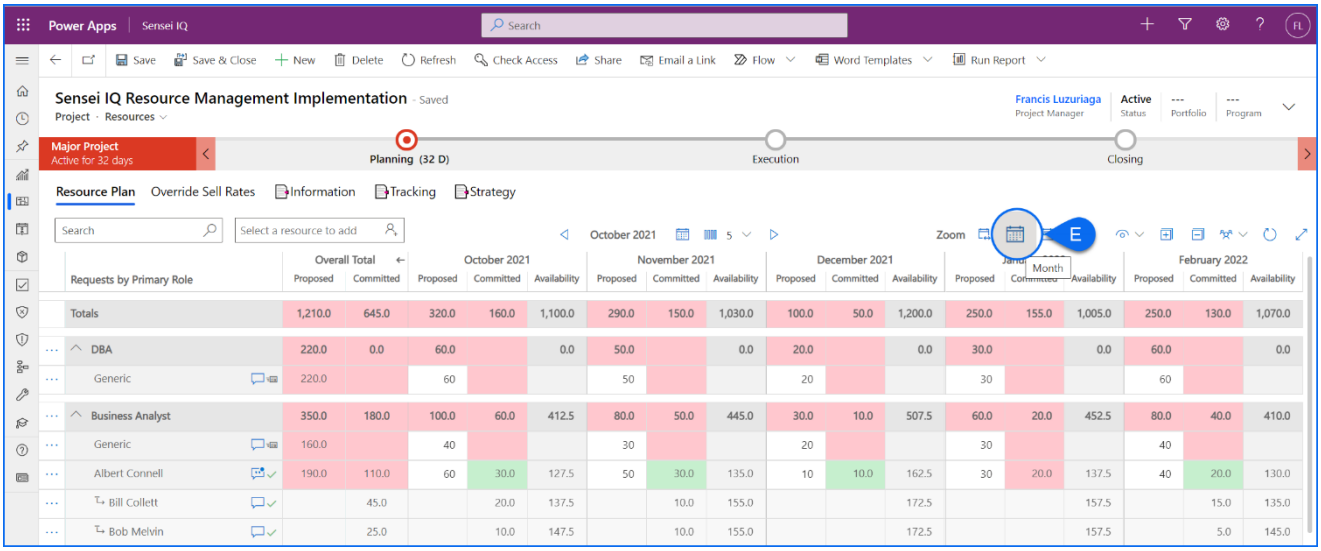
c. Change the selected **date** for the first period that you want to review the resource planning from.



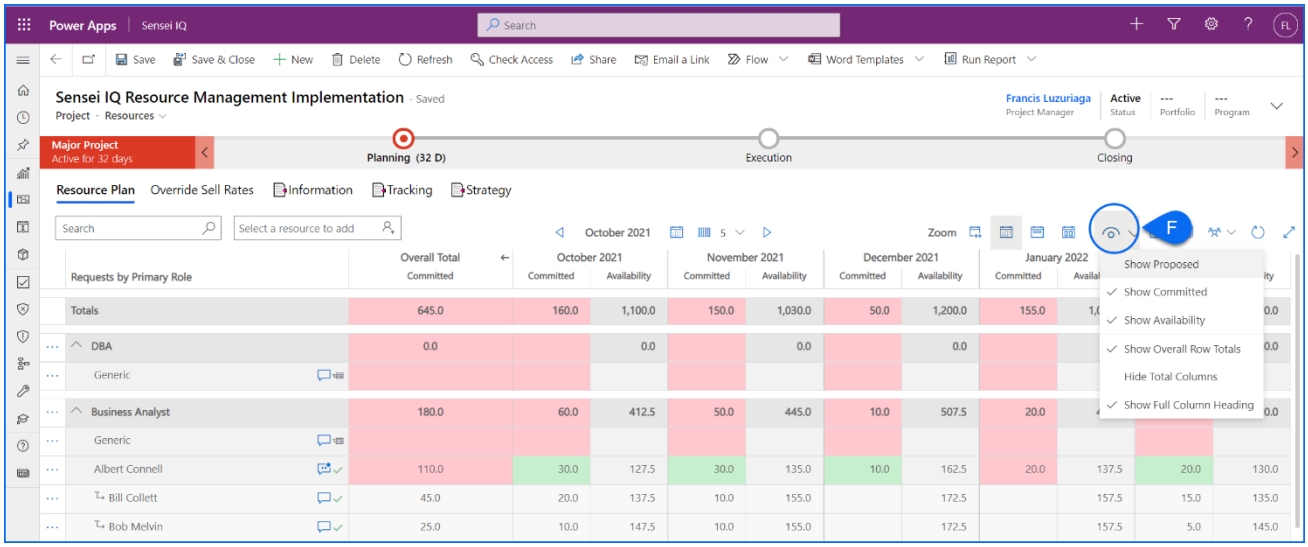
d. Set the number of **periods** you want to be visible on the page.



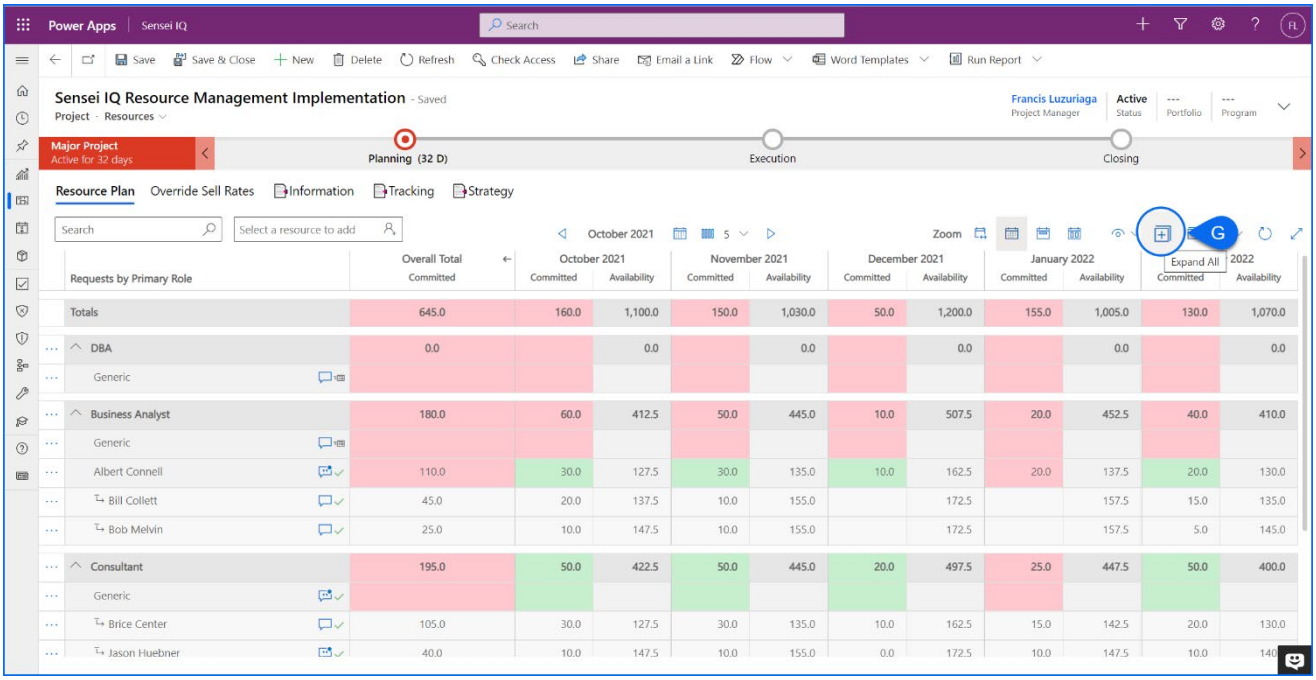
e. Set the **timescale** of the requested period using the **Zoom** feature.



f. Ensure that only **Show Committed, Show Availability, Show Overall Row Totals** and **Show Full Column Heading** options are selected from the **View Options** menu.



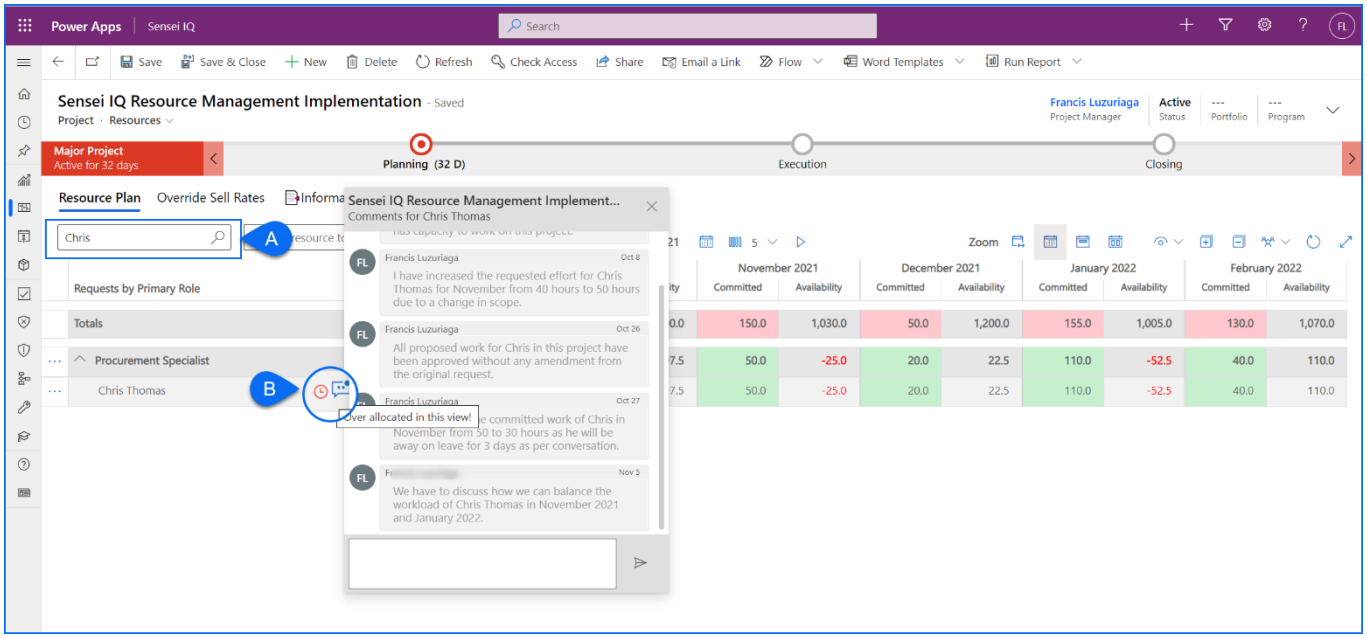
g. Click the **Expand All** button to display the second level of rows outlining the resources under each primary role row.



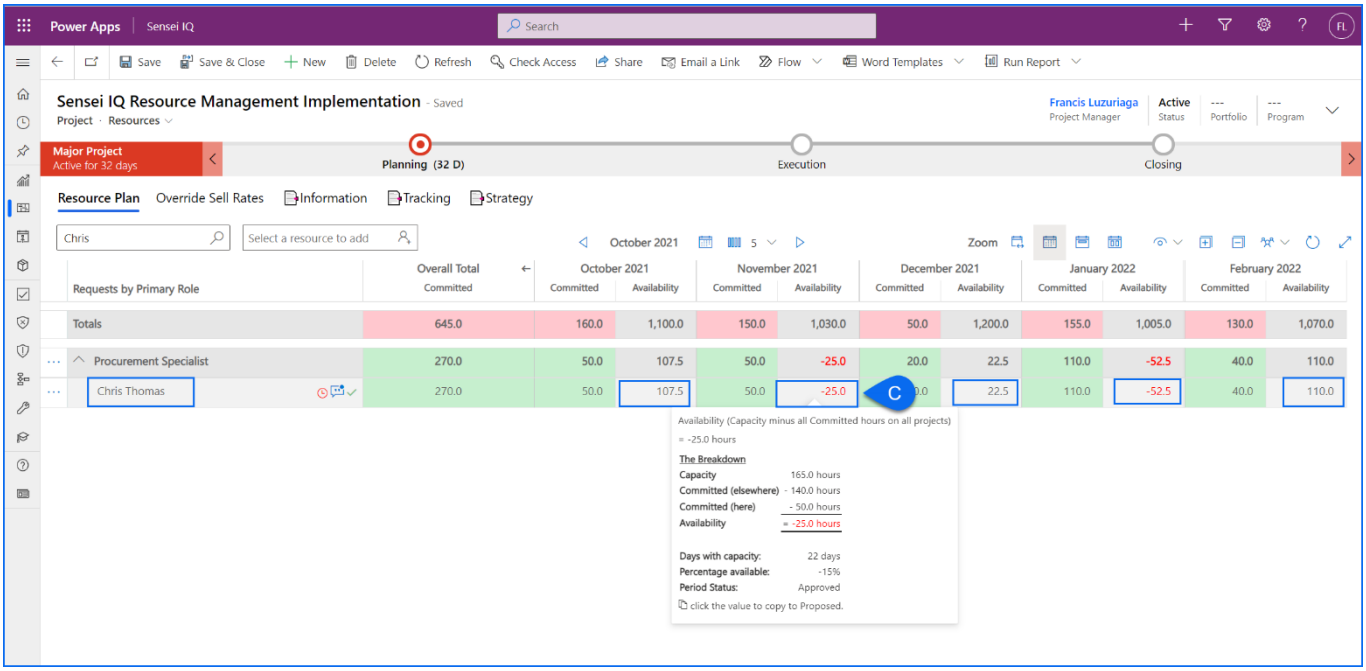
2. EVALUATE WORK ALLOCATION VERSUS AVAILABILITY OF NAMED RESOURCES

a. Use the **Search** field to look up the named resource from the **Resource Plan** screen.

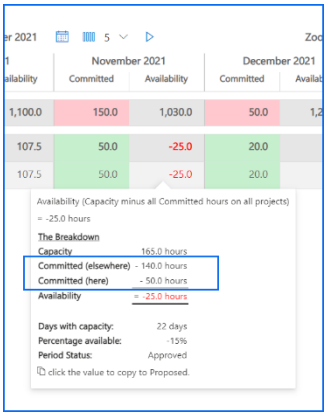
b. Pick the named resource from the search results displayed on the page and review the **attached comments** where the overallocation indicator appears for contextual information.



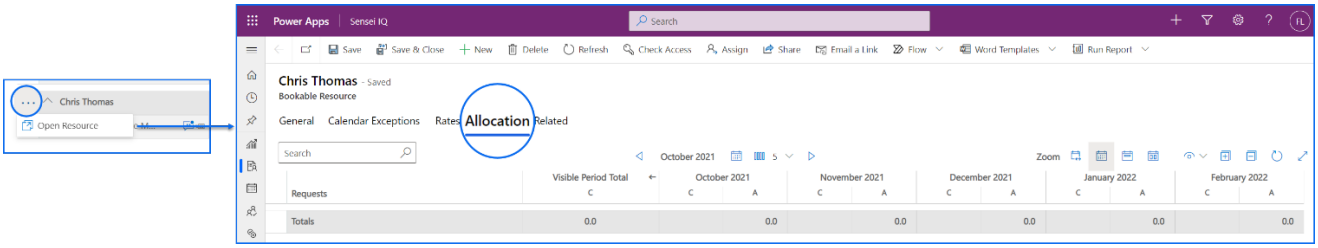
c. Hide the comments and evaluate the overall remaining availability of the named resource under its **Primary Role** row, particularly where a **negative red** value appears in the **Availability** column or the **tooltip text** when you hover the mouse over each visible period.



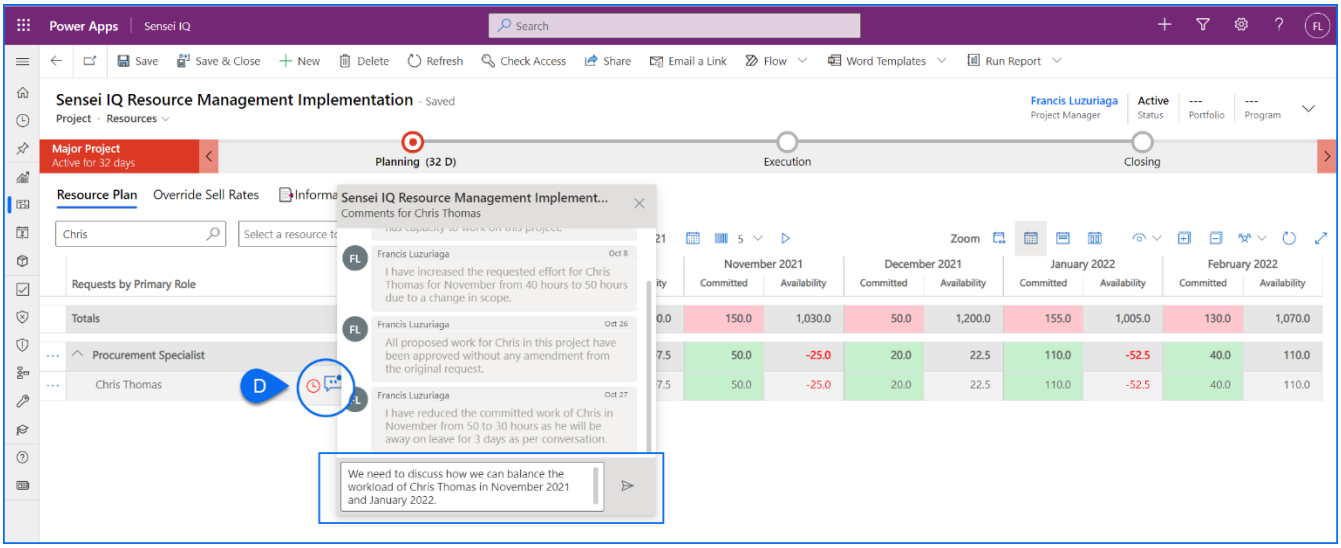
Important: The overall availability is calculated from the overall resource capacity for the visible period minus the total committed hours on all projects where the breakdown of which is also displayed in the tooltip text.



Tip: If you want to further understand the allocation of the selected named resource across other projects, you can click the **Primary Role Menu** button **(...)** in front of the primary resource role name and then the **Open Resource** button to access the **Allocation** tab of the named resource in a separate window.



d. Attach **comments** to the resource request of the project/s with **overallocation** to balance the resource workload with the respective project managers by either reallocating a portion of the committed work to someone else and/or moving it to another period when the allocated resource has more availability (**recommended**).



Tip: Once the resource overallocation is identified, you can resolve, if not minimize, the overallocation in agreement with the respective project managers by following the steps outlined in section **3. Modify an existing fulfilled request for named resources** from a related downloadable titled **JOB AID - Reviewing and approving resource requests.**

Identify resource allocation from the Resource View

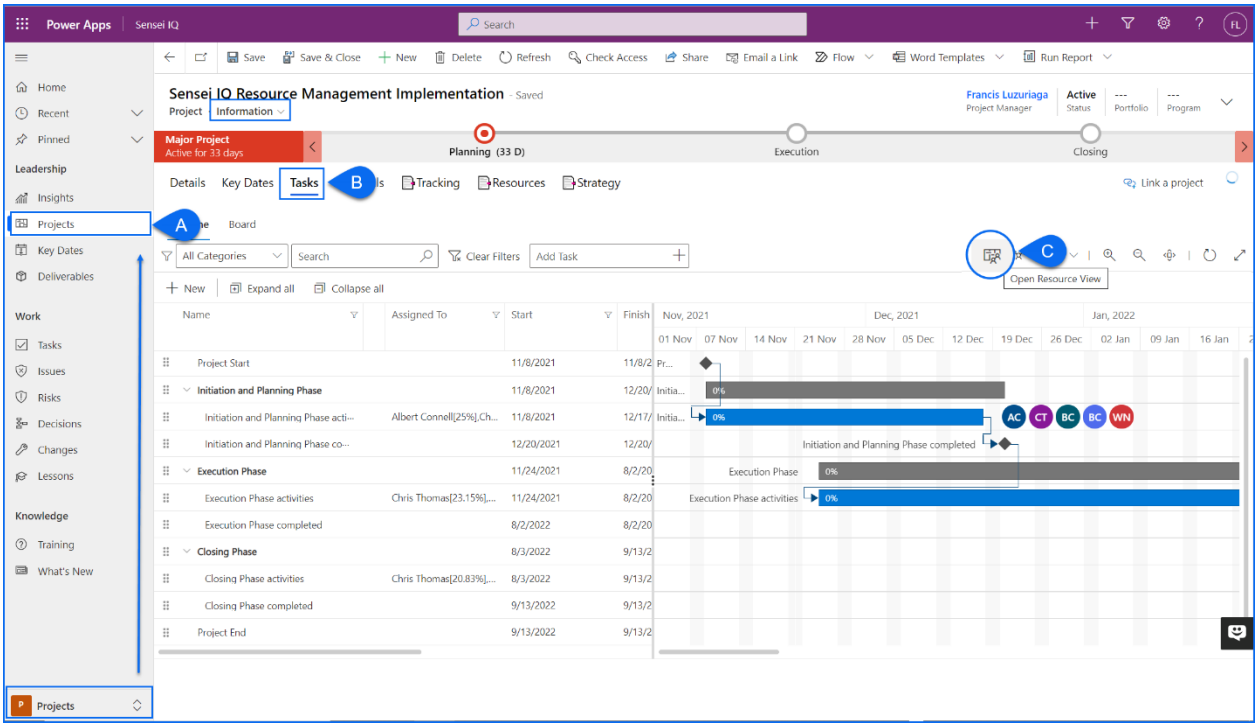
Project Manager **Projects > Leadership > Projects > Tasks > Resource View**

1. APPLY THE RESOURCE VIEW IN THE PROJECT PLAN

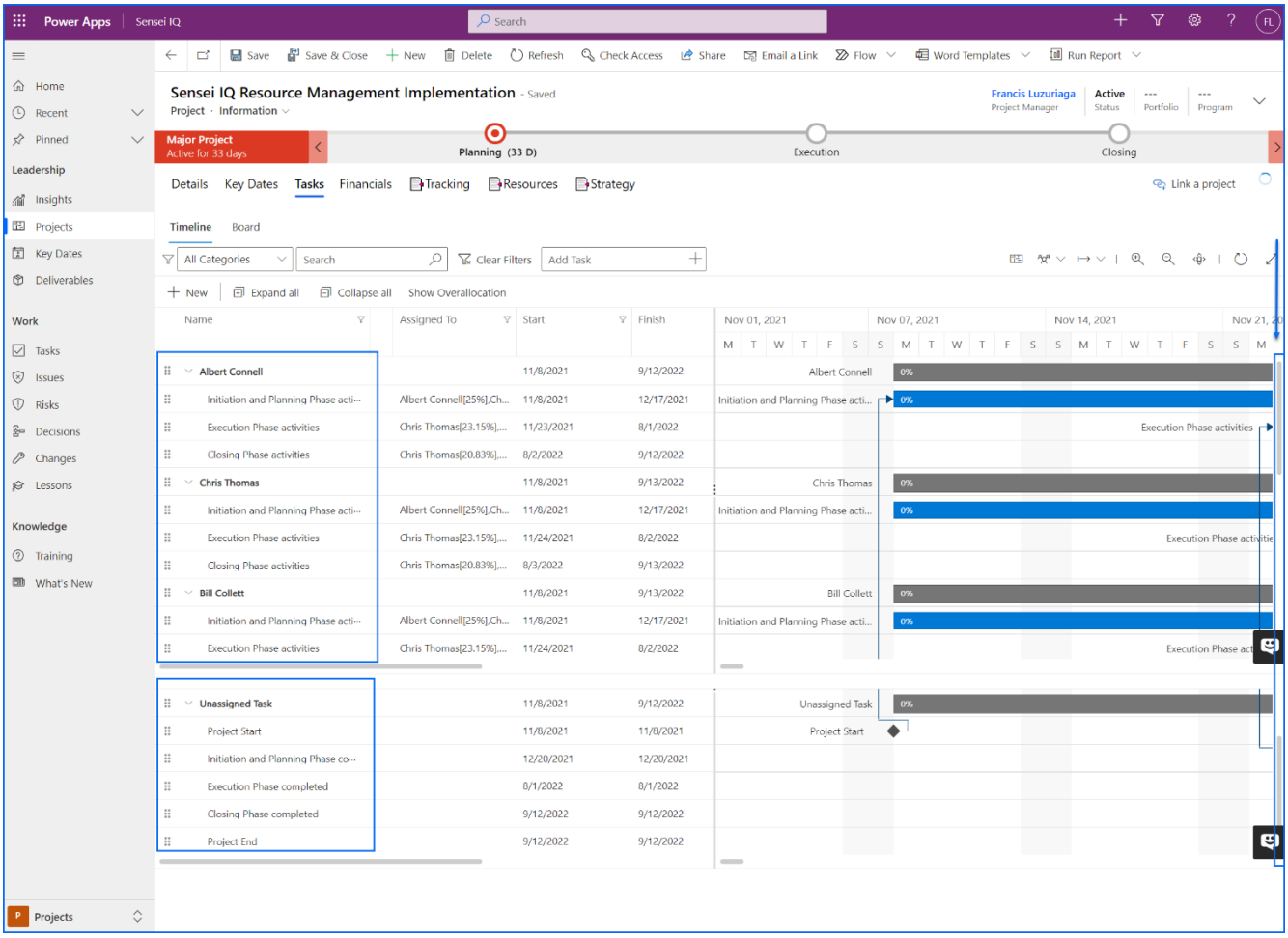
a. Ensure you are in the **Project** area and click **Projects** in the **Leadership** section.

b. Open the project record then navigate to the **Tasks** tab of the **Information** segment.

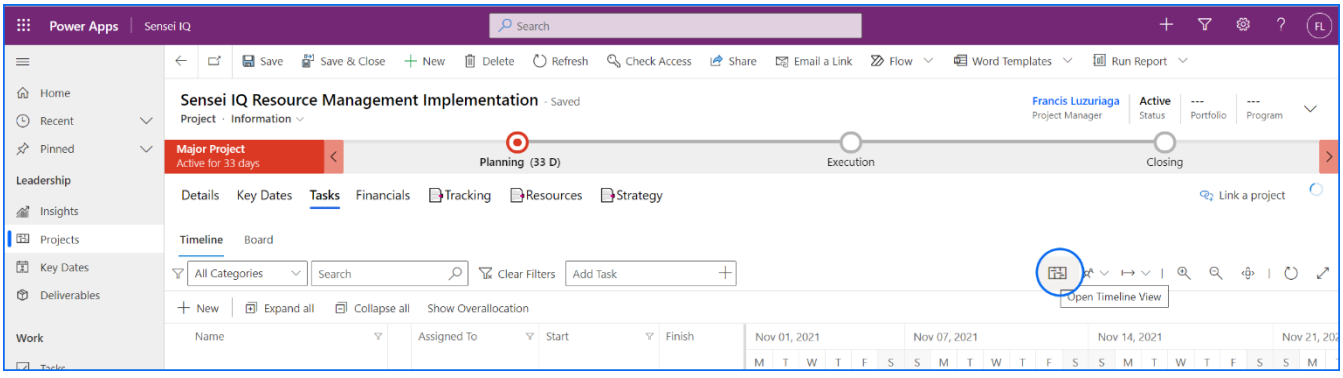
c. Select the **Open Resource View** option from the command bar above the Gannt chart window to apply the **Resource View** on the page.



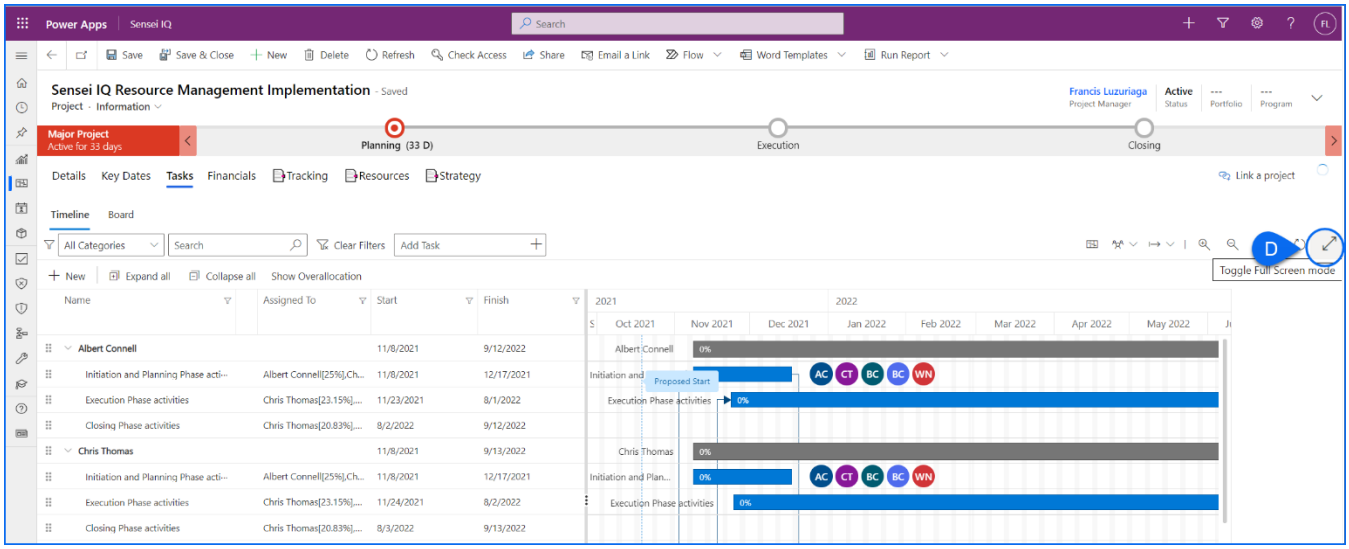
Important: The **Resource View** switches the default **Timeline View** displaying a *work breakdown structure* to a *resource breakdown view* with a Gantt chart that visualizes the list of tasks assigned to each resource in a hierarchical manner on task editing mode. Use the vertical scroll bar to view the tasks that are not assigned to any resources displayed under the **Unassigned Task** category which also includes milestone tasks that are not normally assigned to resources in the project plan.



Tip: Selecting the **Open Timeline View** option from the command bar switches the **Resource View** back to the default view displaying the *work breakdown structure* and a Gannt chart.

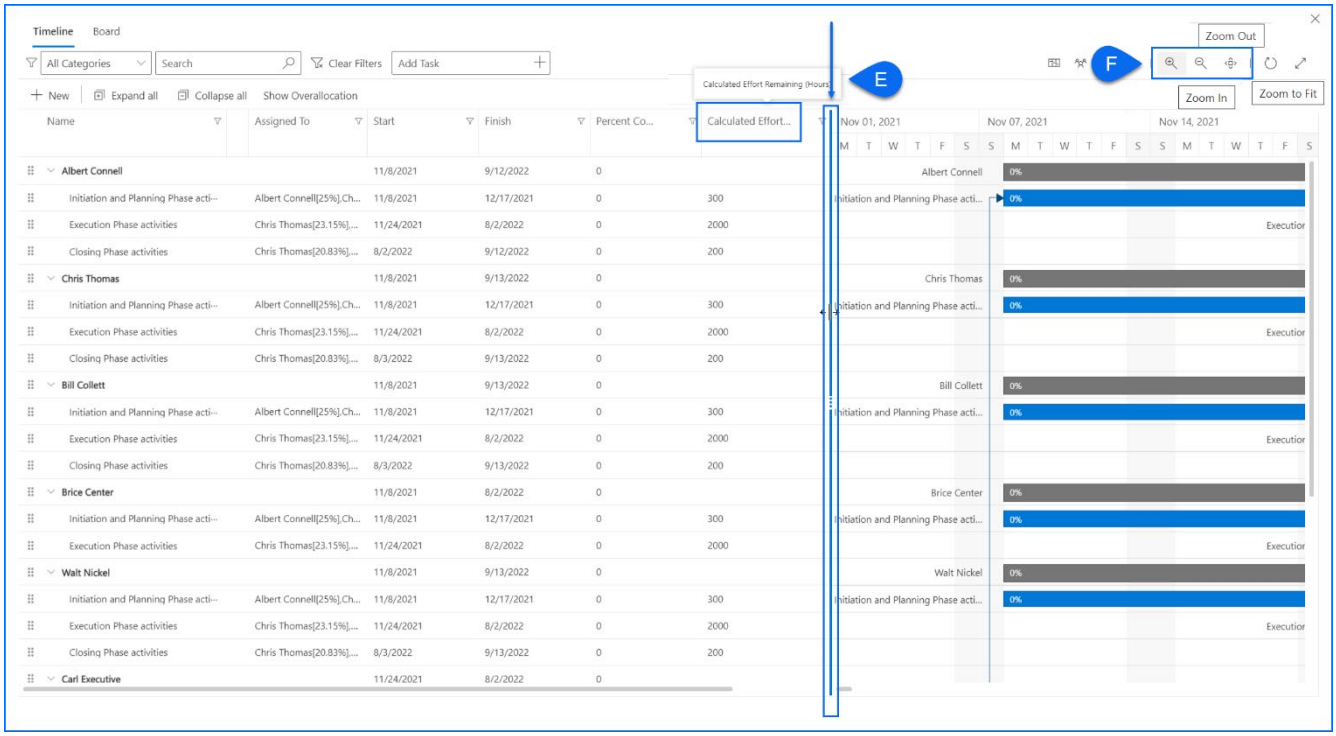


d. Enable the **Toggle Full Screen Mode** option to switch the **Resource View** screen to focus mode.



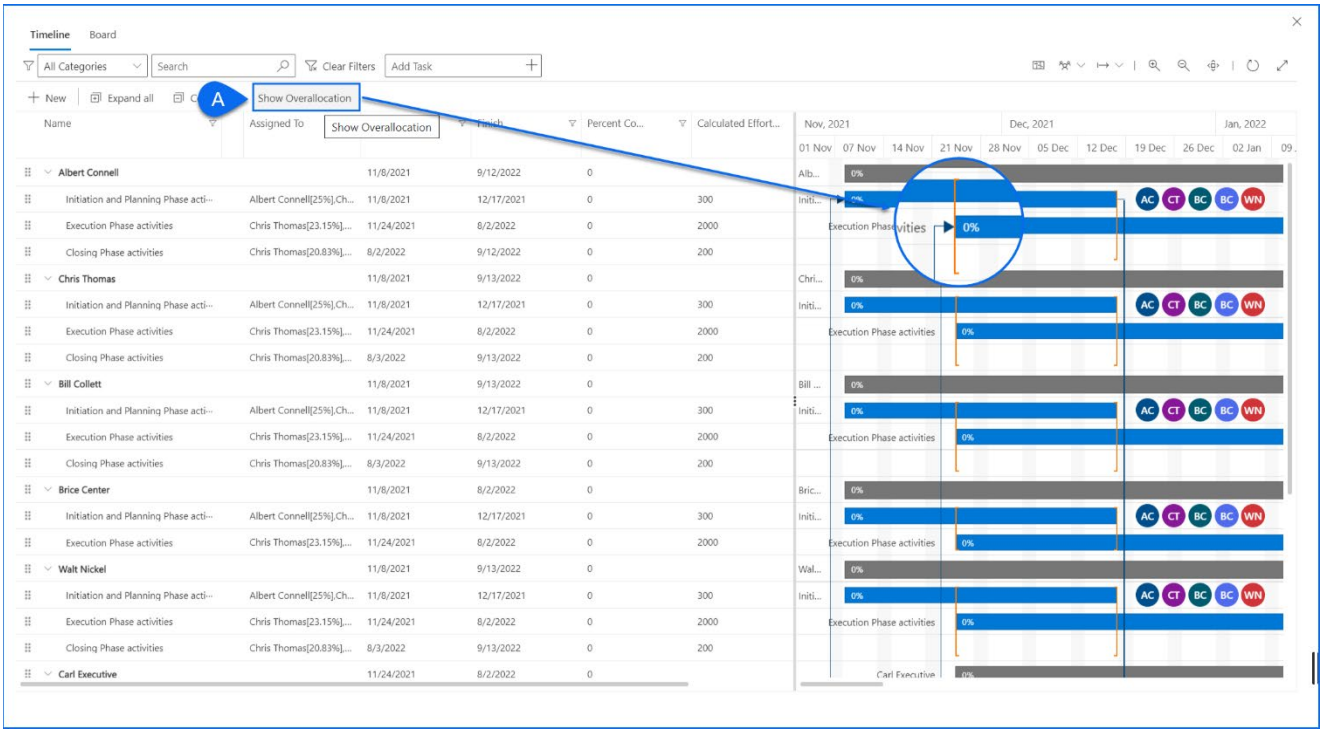
e. Drag the **vertical splitter bar** and drop it to the right edge of the **Calculated Effort Remaining Hours** ensuring that the Gannt chart remains visible on the other half of the screen.

f. Use the **Zoom In, Zoom Out** or **Zoom to Fit** buttons to control the timescale of the Gannt chart displayed on the right-hand side of the screen.



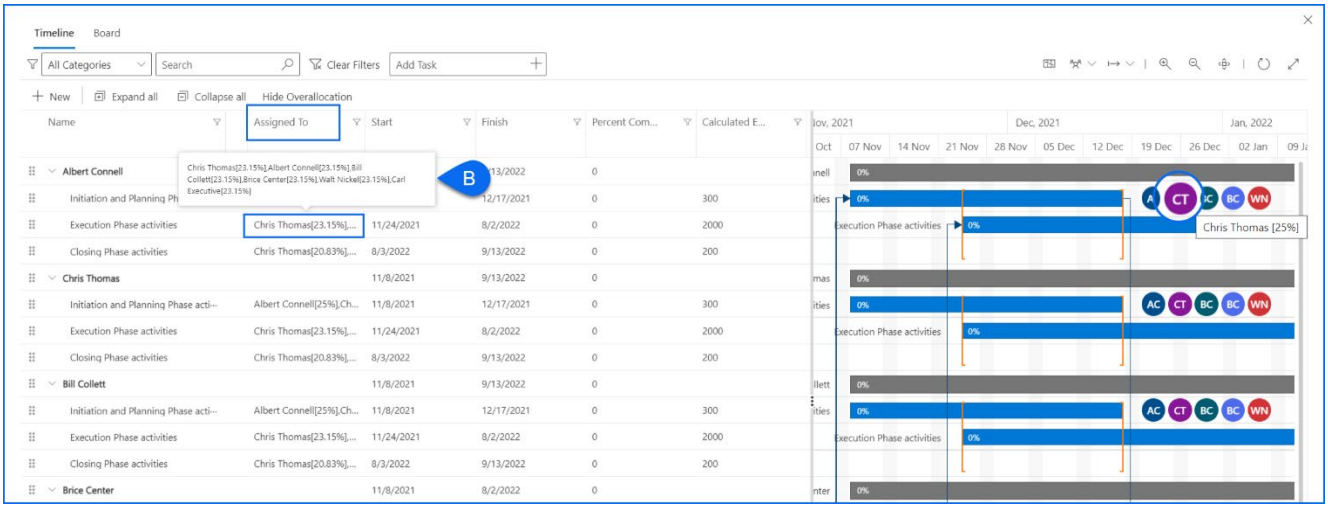
2. EVALUATE WORK ASSIGNMENTS OF NAMED RESOURCES

a. Click the **Show Overallocation** button from the command bar above the resource breakdown table.

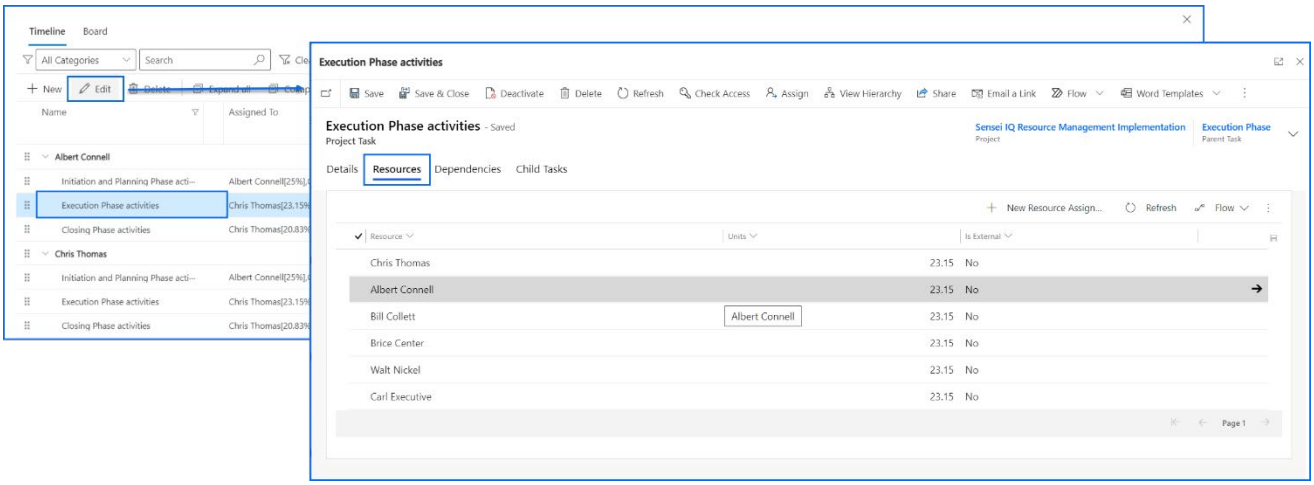


Important: When a resource is assigned with two or more tasks which are scheduled on the same date or period, effectively **overlapping work assignments** (regardless of the *target utilization rate*, *calculated effort*, *resource capacity*, and *committed work by the line manager*), it is automatically displayed as **resource overallocation** in the project plan. The date ranges with resource overallocation are highlighted with a **red** square bracket in the Gannt chart on the right-hand side of the screen.

b. To investigate the resource overallocation against a work assignment, either hover the mouse over the names displayed in **Assigned To** column of the current view or over the initials of each named resource displayed at the end of the Gannt chart bar where overallocation is displayed.



Tip: Alternatively, highlighting the work assignment of the resource that is causing the overallocation then clicking the **Edit** button from the command bar displays the **Task Information** dialog box where the user can access the list of named resources assigned to the task with their calculated rate of utilization displayed in the **Units** column of the **Resources** tab.



Important: It is important to remember that the **project plan** where tasks with effort estimates are assigned to allocated named resources (*work assignments*) is **not** controlled by the **resource plan** where *committed hours* from approved resource requests are allocated to named resources. Depending on your organizational rules, the project manager may be required to consistently optimize the project plan (*schedule*), cut scope, or negotiate for additional resources or changed dates to ensure that calculated total effort from the *work assignments* in the project plan remains aligned to the *committed hours* approved by the respective line managers recorded in the **Resource Plan** tab.

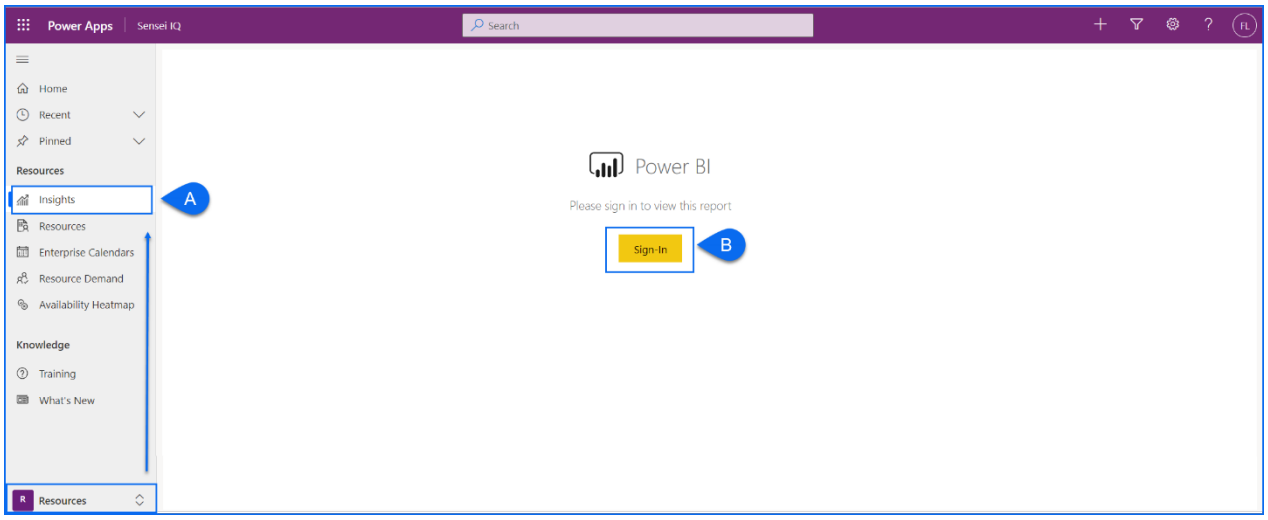
Identify resource allocation variance from Insights

Resource Manager **Resources > Resources > Insights**

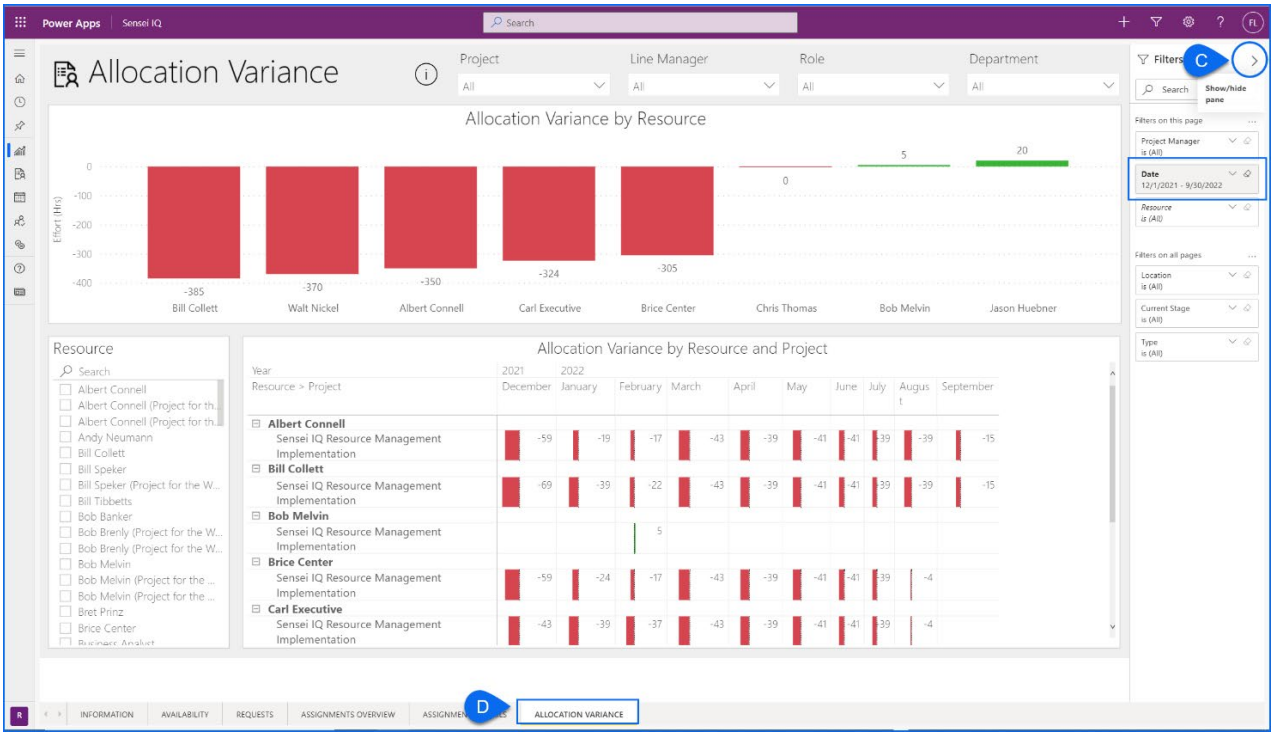
1. SET THE FILTERS IN THE ALLOCATION VARIANCE REPORT PAGE

a. Ensure that you are in the **Resources** area and click **Insights** in the **Resources** section.

b. Click the **Sign-in** button (if prompted) to load the pre-configured Power BI report on the page.

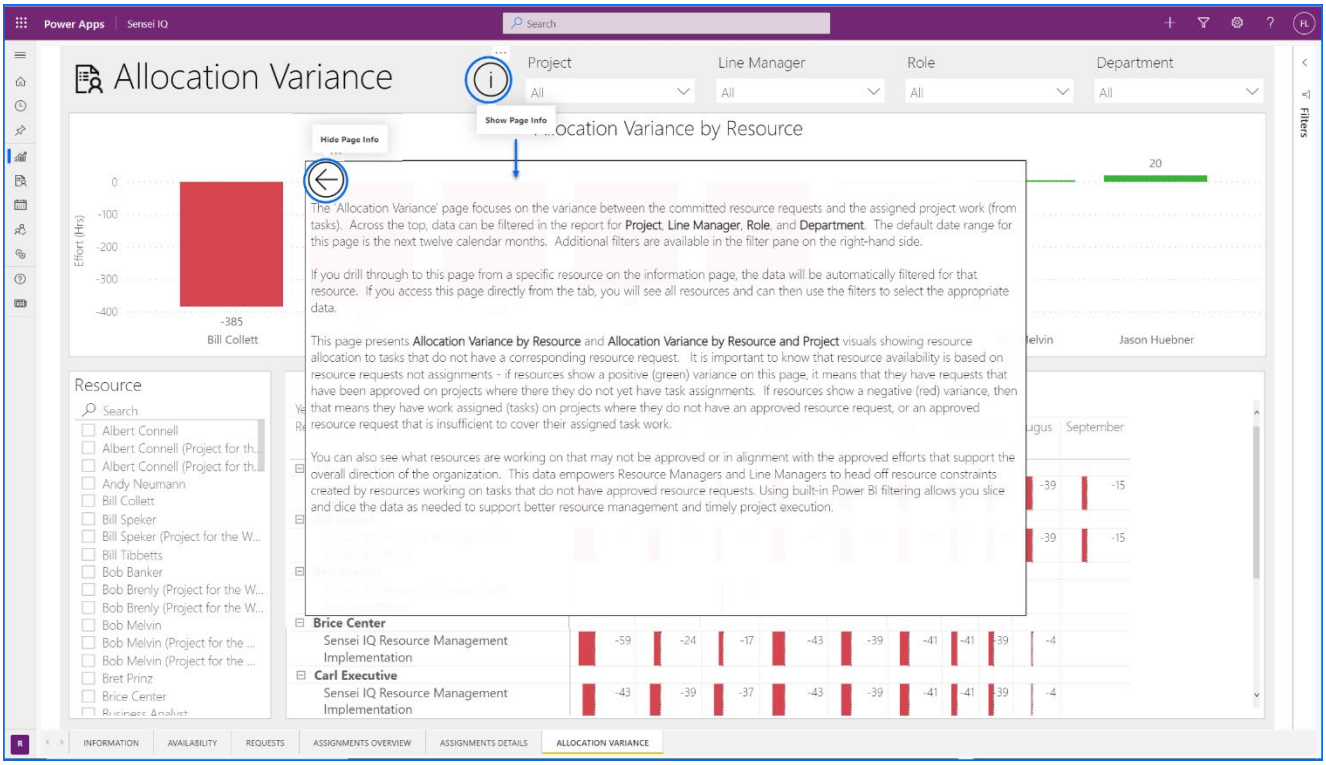


d. Click the **Show/Hide pane** chevron button to display the **Filters** pane on the right-hand side and validate the **date** range of the data displayed on the page

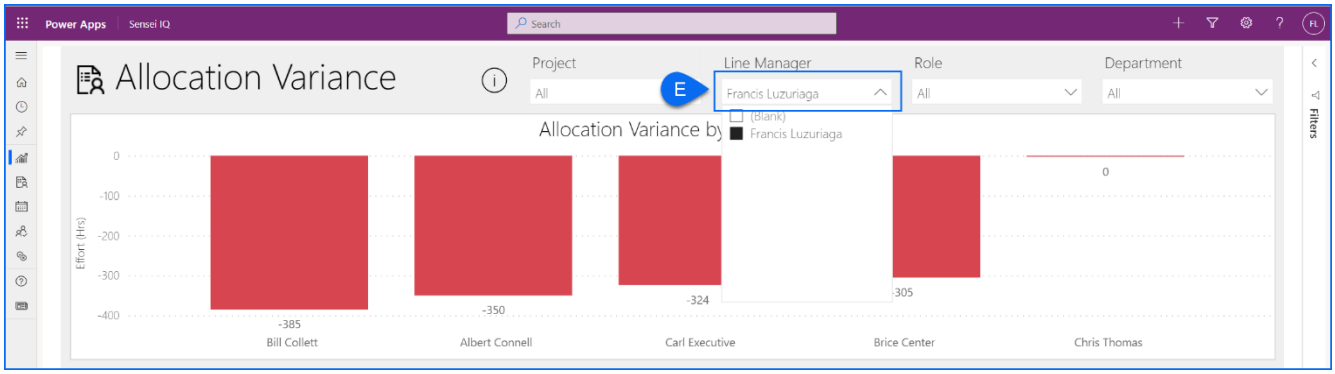


Important: The default date range for this page is the next twelve (12) calendar months.

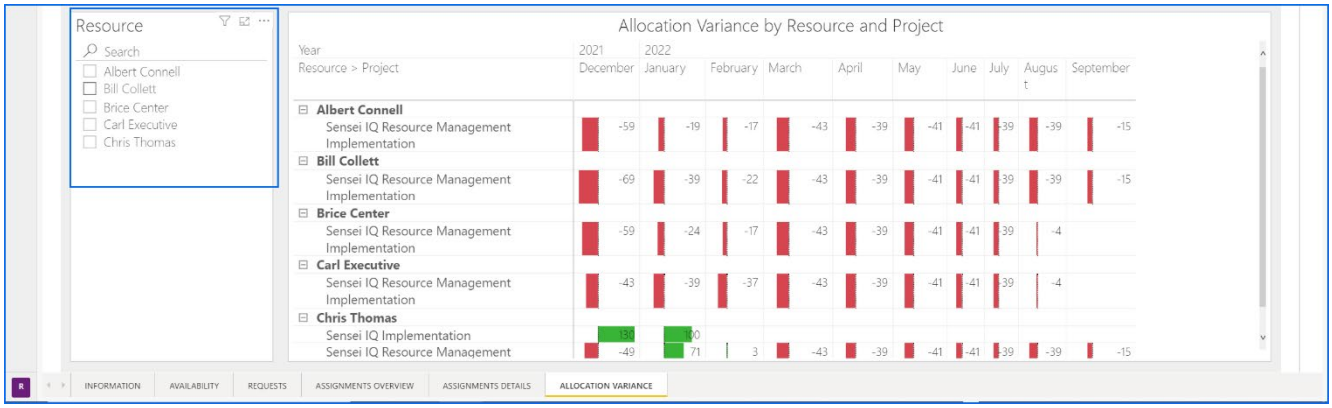
Tip: Clicking the **Show Page Info** button on each report page allows the user to view a description of the report page (**recommended**).



e. Select a name from the **Line Manager** filter to display only named resources that the user is the line manager for.



Tip: Across the top of the page, data can also be filtered in the report by **Project, Role** and/or **Department**. Additionally, you can use the **Resource** filter on the left-hand side of the screen to select named resource/s to focus on.

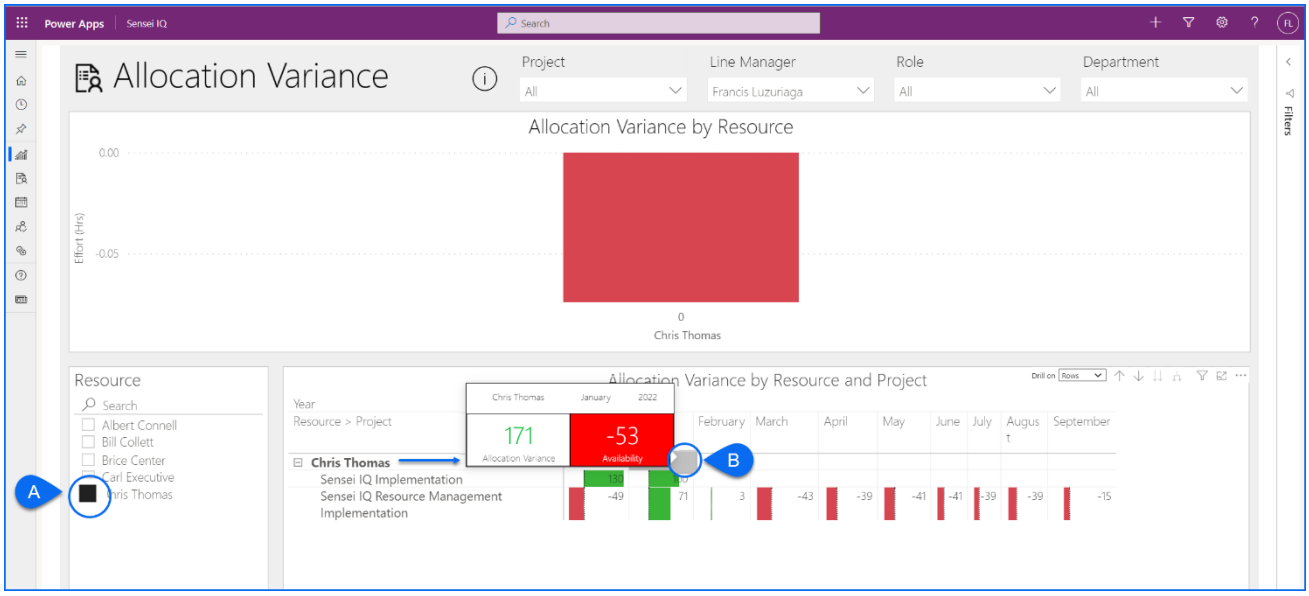


2. EVALUATE ALLOCATION VARIANCE OF NAMED RESOURCES

a. Ensure that you have selected a named resource to evaluate the allocation variance of in the **Resource** filter.

b. From the **Allocation Variance by Resource and Project** visuals, hover the mouse over the **blank cell** across the named resource row for each visible period to display the **tooltip visual** that reveals the following insights:

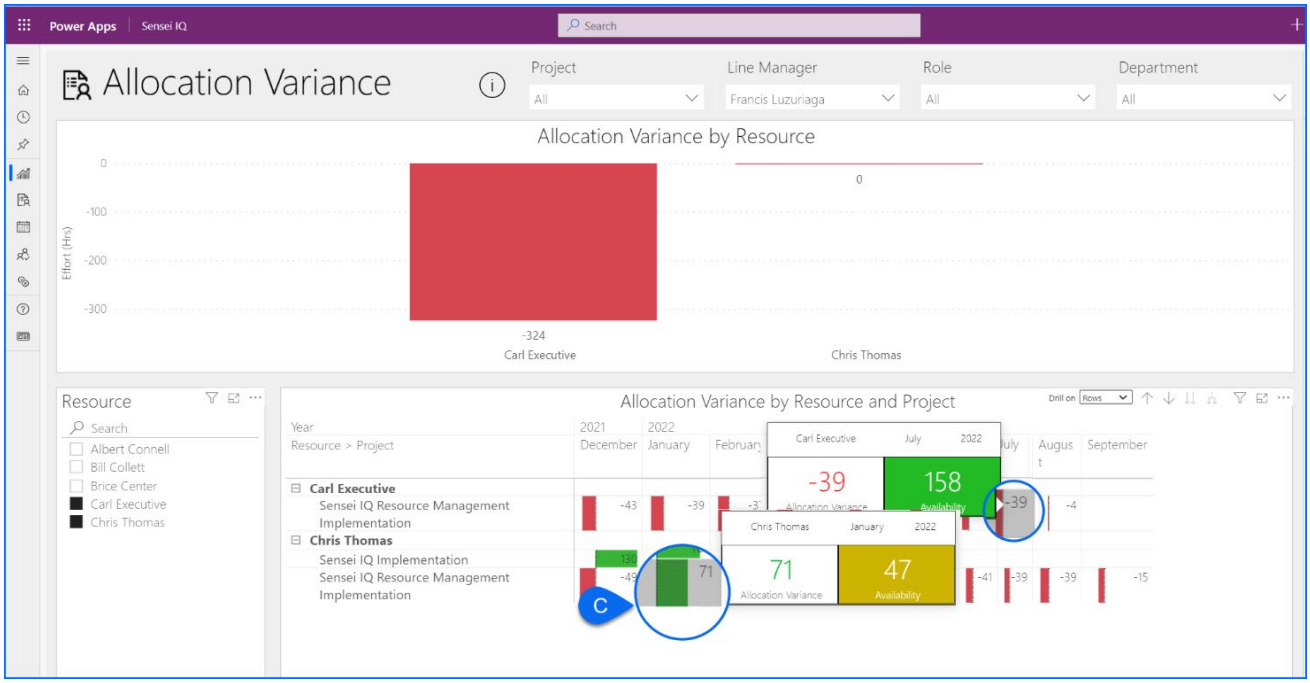
- Name of the bookable resource
- Highlighted period in the timescale
- Allocation variance for the period (i.e., *total committed work in the resource plans versus total calculated effort from assignments in the project plan*)
- Availability for the period (i.e., *overall resource capacity for the period versus total committed work in the resource plans)*



Important: The **Allocation Variance by Resource and Project** visual shows the resource allocation to tasks in the project plan that do not have a corresponding approved request in the resource plan. It is also important to know that resource availability is based on the approved resource requests (*committed hours*) in the resource plan, **not** *work assignments* from the project plan.

c. Next, hover the mouse over the cells with **positive values** (highlighted in **green**) or **negative values** (highlighted in **red**) across the project name row under a named resource row for each visible period to display the **tooltip visual** that reveals the following insights:

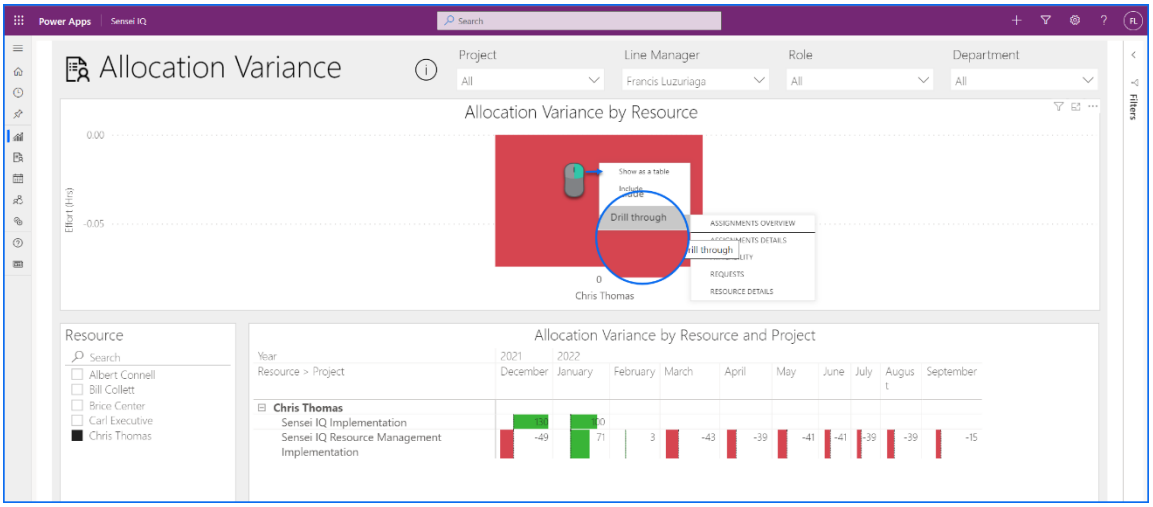
- Name of the bookable resource
- Highlighted period in the timescale
- Allocation variance for the period (i.e., *total committed work in the resource plan of the highlighted project versus total calculated effort from assignments in the project plan*)
- Availability for the period (i.e., *overall resource capacity for the period versus total committed work in the resource plan of the highlighted project)*

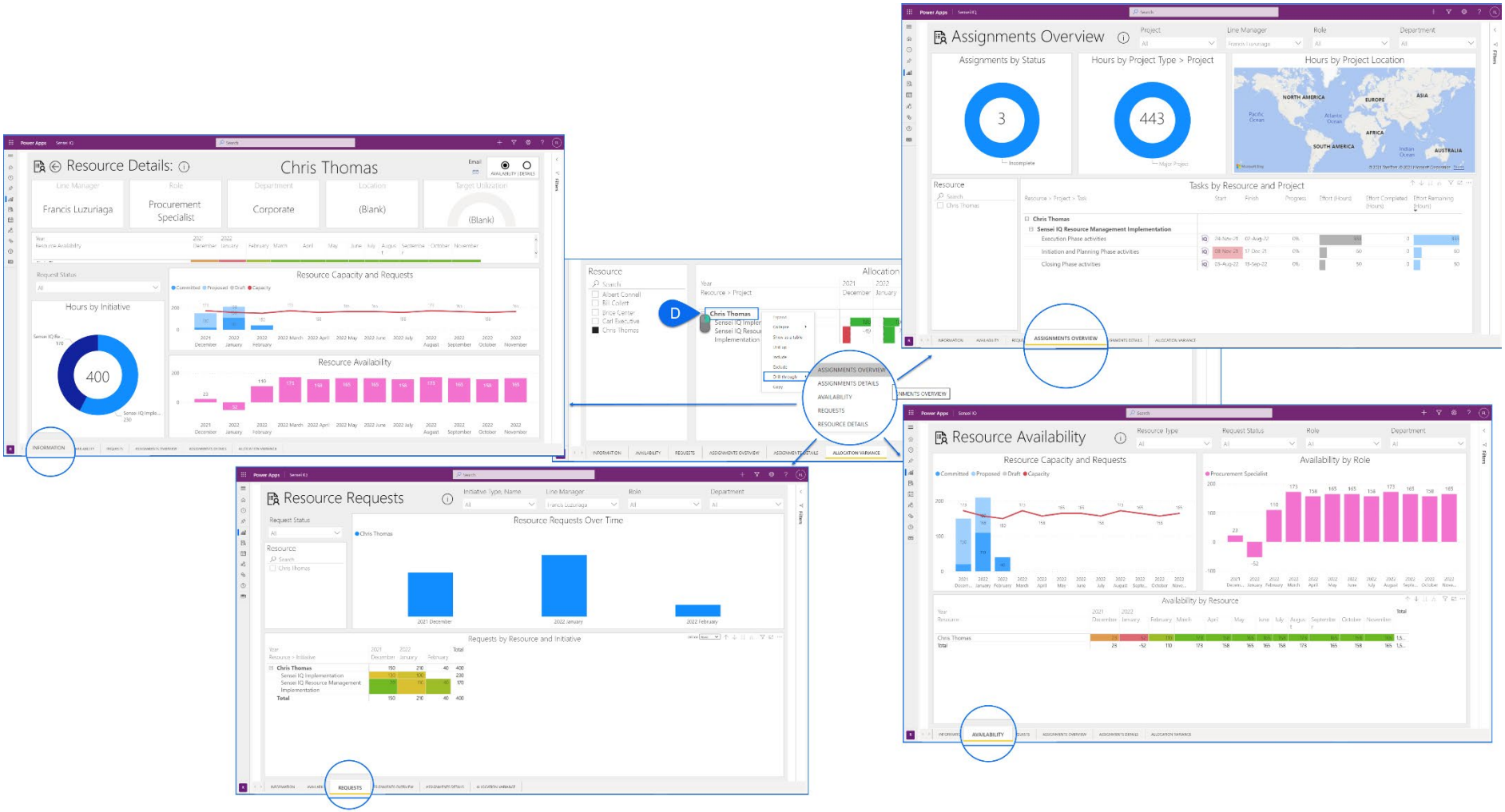


Tip: If the resource allocation shows a **positive green** variance against the project for the highlighted period, it means that they have resource requests that have been approved on the project's resource plan where they do not yet have task work assigned to them (*work assignments*) in the project plan. If the resource allocation shows a **negative red** variance, then that means they have tasks assigned (*work assignments*) in the project plan where they do not have an approved resource request, or an approved resource request in the project's resource plan that is insufficient to cover their assigned task work in the project plan.

d. If you want to further investigate on the allocation variance, right-click on the named resource from the **Allocation Variance by Resource and Project** visual and select a report page from the **Drill through** options depending on your area of interest.

Tip: Alternatively, right-clicking on the chart bar from the **Allocation Variance by Resource** visual also reveals the same **Drill through** options.





Tip: If you drill through to each of these report pages from the **Allocation Variance** report page, the data will be automatically filtered for that selected resource only across the selected page from the **Drill through** options.

Important: Depending on your organizational rules, the line managers may have to use such insights from the **Allocation Variance** report page to regularly work with the respective project managers and ensure that their project plans (*schedules*) are constantly optimized, or additional resources and/or changed dates are re-negotiated so that resources are **not** working on project tasks that may not be approved or in alignment with the approved efforts that support the overall direction of the organization. Additionally, this allows line managers to head off resource constraints created by resources working on tasks that do not have approved resource requests for better resource management and timely project execution.

