

Creating Custom Reports and Dashboards in the CCC Data Warehouse Report Server V1.1

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CCC Data Warehouse Report Server Overview

The CCC Data Warehouse Report Server (DW Report Server) is an easy-to-use report generator that pulls data from the CCC Data Warehouse.

This guide includes instructions and walk-throughs for designing, constructing, and saving reports and dashboards in the DW Report Server. For general DW Report Server usage, please see the *CCC Data Warehouse Report Center* guide.

The DW Report Server is powered by Jasper Reports, a Java-based open-source reporting tool. Jasper Reports allows for advanced reporting usage and provides extensive help that you can access from the *Help* link. The CCC Data Warehouse is a structured source of master data that can be used to generate the data marts and reports and analytics that end-users need.

The information provided in this document provides information on:

- creating custom report "Views" and reports based on the following domains:
 - CCCApply Standard Application
 - LGBTQ Data (a subset of CCCApply Standard Application data)
 - CCCApply International Application
 - CC College Promise Grant Application (formerly BOG Fee Waiver Application)
 - Canvas
 - MIS data
 - Multiple Measures Placement Service (MMPS)
 - MyPath
- creating custom dashboards for the same domains listed above



Note: JasperReports Server provides built-in instructional videos that will be referenced in this document as appropriate.

Terms of CCC Data Warehouse Report Server Use and Support

The DW Report Server Pilot environment is meant to be a carbon copy of the Production environment to allow colleges to run reports prior to a product update or roll-out. While the Pilot environment is a clone of Production, it is not actively monitored for errors and issues in the same way that the Production environment is. Thus, there is no support team in place to respond to Pilot environment issues. For those colleges currently implementing DW Report Server, reporting issues to your project team may not be effective.

Our recommendation is that college staff personnel use the CCCTechnology info support site to communicate issues, ask questions, and request assistance. CCCTC support staff review incoming posts and endeavor to respond within 48 hours to issues posted about the Pilot environment. Depending on the nature of the issue, resolution time will vary; however, the intent is to provide updates on progress towards implementation every 24 hours.

First Time Data Warehouse Report Server Access

If you have not yet accessed the Data Warehouse Report Server, please follow the onboarding instructions here.

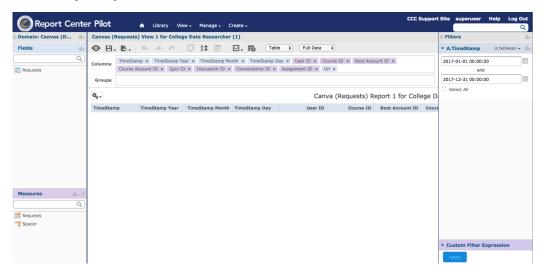
Creating a Custom Report

There are two ways to create a custom report:

- · Copy an existing report "View" and then editing and saving that view to create a new report
- · Create a custom, Ad Hoc "View" from scratch, save it, and then run a report from it

Understanding Report "Views"

In order to create a report you must first create a report View and then create a report from it. A report View is a kind of "report designer" that defines the type of report and the format, layout, data, groupings, and filters to be applied when the report is generated.



The image above is an example of a report View that was copied from an existing one and can now be edited to create a new View and report.

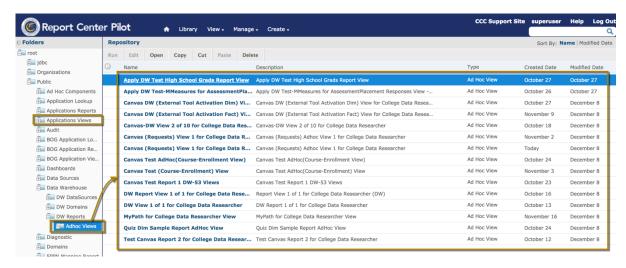
Once a report view is created the report can be:

- · run immediately
- run in the background
- scheduled (at any interval you define, sent by email to designated recipients, etc.)
- · included on a dashboard

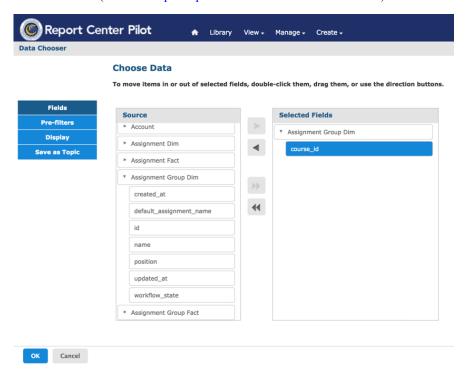
The reports in the DW Report Server's Public repository include the following kinds of reports along with their report Views:

- ready-to-use standard reports specific to single application data instances
- ready-to-use Data Warehouse reports specific to one of the following application data sources:
 - CCCApply Standard Application
 - LGBTQ Data (a subset of CCCApply Standard Application data)
 - CC College Promise Grant Application (formerly BOG Fee Waiver Application)
 - CCCApply International Application
 - Canvas
 - MIS data
 - Multiple Measures Placement Service (MMPS)
 - MyPath

In the image below the single-source *Application Views* folder and Data Warehouse's *Adhoc Views* folder are highlighted. The Data Warehouse's Adhoc Views are selected and displayed to the right, showing the current, available report Views.



You can copy existing Views, renaming them to create a new View where you can add or remove fields (as in the first image, above). Or, you can create your own new Ad Hoc View from scratch (as in the image below). Ad Hoc Views are which are "used to explore and analyze multiple levels of data through cross tab, table, and chart visualizations." (Source: JasperReports Server Ad Hoc Views Video.)



The image above is an example of creating a report Ad Hoc View from scratch. In the image above the data source has already been selected.

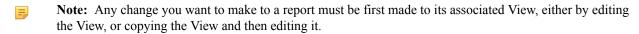
Following Report View Best Practices

Use the following "best practices" as outlined below when working with Views and their associated reports.

General Best Practice	Example
View/Report Organization	 Keep your Views organized in folders that have the word "View" in their name to make the Views easier to find Keep your reports organized in folders that have the word "Reports" in their name to make the reports easier to find Use the same name for the View as you do for its corresponding Report but include "View" or "Report" in its name to further help with organization
When Creating a View by Copying an Existing View	 Only copy a report's View if you need to edit or customize it; otherwise, always run a Public report from the Public folder in the Repository When copying or customizing an existing View, add the word "Report" or "View" onto the end of the new name to keep the report/View distinction clear If you want to keep the original View when making changes, use the Save As button to save the View with a different name and then make your changes (and use the <i>Description</i> field in the <i>Save As</i> dialog box to add information) Public reports and their Views cannot be edited or deleted (though in some reports you may have the option to filter out certain data from the displayed results) Remember: If you change a View, you will need to create/run a report from it in order to see the changes in report form

Copy an Existing Report View to Make a New Report

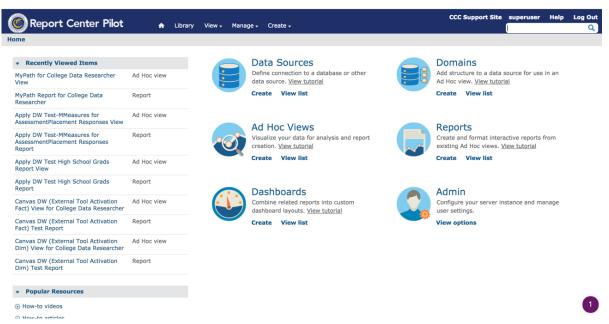
Use the following steps to copy an existing report View in order to create a new one.



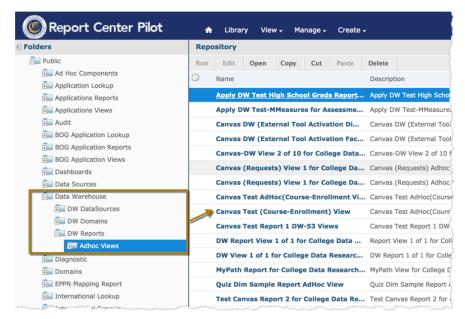
1. Navigate to the DW Report Server Pilot environment URL for your college and enter your college credentials.



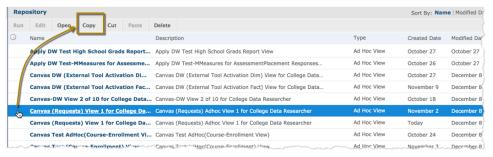
2. Click the Sign In button to sign into the DW Report Server and display the Home page.



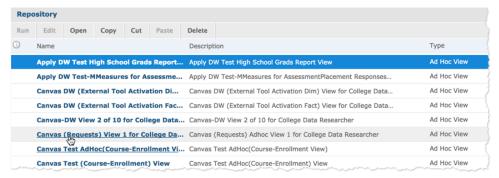
- 3. Click $View \rightarrow Repository$ to display the Folders and Repository view.
- **4.** In the *Public* folder, navigate to the *Data Warehouse* folder → *DW Reports* folder → *Adhoc Views* folder to display the report Views that correspond to the DW Reports.



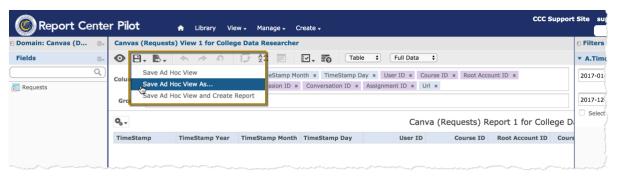
- 5. Identify the report View that you want to copy and copy it in one of two ways:
 - Copy the view with the **Copy** button.
 - **a.** Select the View by clicking in the space to the left of the View's name so that the entire row is highlighted in blue.



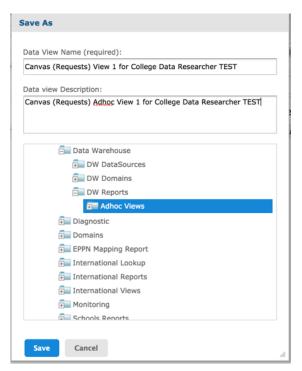
- b. Click Copy.
- **c.** Click the Public folder where you store your report Views for your college and click the **Paste** button to copy the View into that folder.
- **d.** You can now edit the View copy you just pasted and save it to create reports from.
- Save the report View using **Save As** button:
 - a. Click the linked View name to open it in the Ad Hoc editor view.



b. In the Ad Hoc editor view, hover over the Save icon to display the drop-down list options and select *Save Ad Hoc View As...*



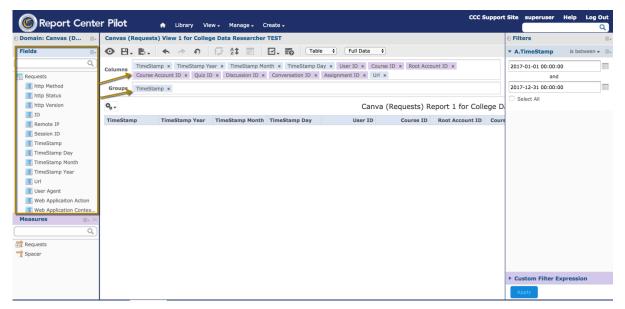
- **c.** When the Save As dialog box displays:
 - Edit the Data View Name (required): field to have the new report View name.
 - Edit the *Data view Description* field to have the new report View description.
 - Scroll through the list of folders to find the one where you store your colleges report Views and click Save.



d. A confirmation message displays. Click *close* to close the message.

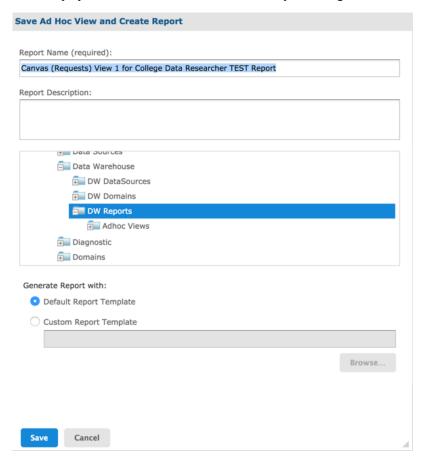


6. Edit the View you just copied or saved in your Views folder by either removing fields from the *Columns* or *Groups* field groups by clicking the X icon or by adding fields by clicking on a field in the *Fields* group and dragging it into either the *Columns* or *Groups* field groups.



- 7. Use the Ad Hoc editor controls to further customize the view. See the *Ad Hoc Views* Core Workflow and its associated *View tutorial* link for details on using the Ad Hoc editor's features.
- **8.** When you are done updating the View, click the *Save* icon again to save the report View.

9. Then click the Save icon again but select the option to Save Ad Hoc View and Create Report from the drop-down list to display the Save Ad Hoc View and Create Report dialog box.

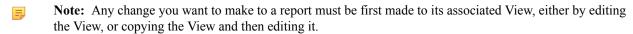


10. Scroll through the folders list until you find the Reports folder for your college and click Save to save the report. The View the report is based on remains saved in the View folder and you can navigate to the Reports folder you just saved the new report to in order to run it.

Creating Ad Hoc Views and Reports

You can create your own custom report by first creating a View for it, from scratch. Though you can create your own custom reports most easily by copying its corresponding report View (here), you may want to

Summary of steps to create a custom report/View from scratch: Create the View and then save the report from it. Once a report is created, it can be run immediately, run in background, scheduled, or included on a dashboard. Dashboards provide the ability to have more than one report on the same web page. Reports on a dashboard can have the same or different filter criteria.

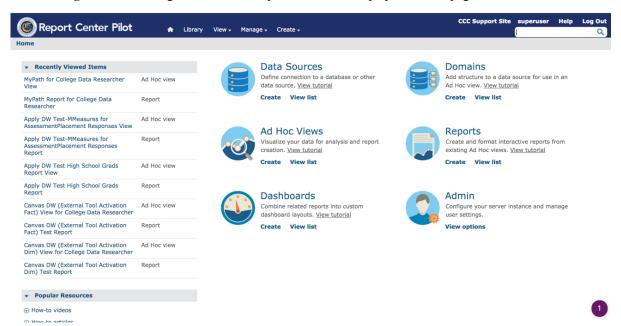


Use the following steps to create a report View from scratch:

- 1. Navigate to the Pilot URL for your college and login with your college credentials.
- 2. At the next login screen, enter your college credentials for the username and password.



3. Click the Sign In button to sign into the DW Report Server and display the Home page.

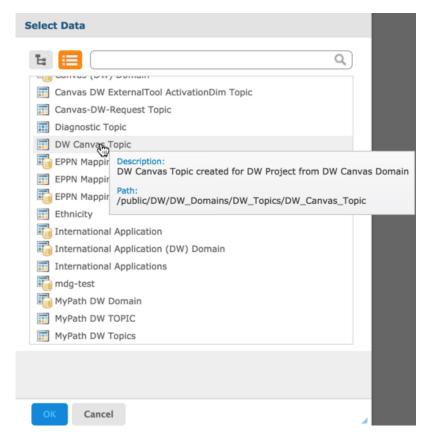


4. From the Home page, select *Create -> Ad Hoc View* from the DW Report Server menu bar to display the *Select Data* dialog box.

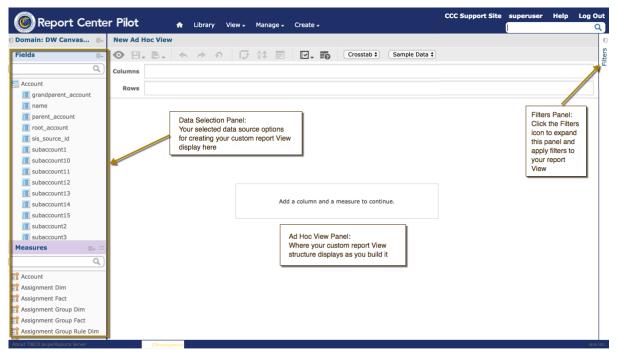


Alternatively you can click the Ad Hoc Views workflow Create link.

5. From the *Select Data* dialog box, scroll to find the data source you want to use for your report View. Data Warehouse-related data sources have a "DW" in the name of the source and "Topic" as a part of their name.



- Note: Hover over the data source name to see its description and path information.
- **6.** Double-click your selected DW *Topic* data source to display the Ad Hoc View editor with your selected data source options displayed in the *Fields* and *Measures* panes.



- 7. Click to drag *Field* options into the *Columns* and/or *Rows* field group to build your report View.
 - a. The Data Source Selection panel (left) displays data fields available based on the data source (topic) you selected. The fields are organized in categories. Click the + to open a field category. You can use your data source's Data Dictionary for more information on each field's details.
 - b. The Ad Hoc View panel (center) is where your custom report View structure displays as you drag data source items into the Columns and Rows fields. Other tools you can use here include the Ad Hoc Editor Tool bar, the Layout Band (columns and rows fields), and the Canvas Options selector (gears) icon.
 - The Filters panel (right) displays any fields you select to be used as filters and allows you to refine the definition of those filters.



Note: For filters based on date fields, you can configure a "relative date filter" that refreshes data to a specified date range by using key words and a number. For example, if you want to run a report that displays student data that is only from the previous week, you would set a filter that looks like this: "WEEK-1". For details, see the online help's "Using Filters" topic.

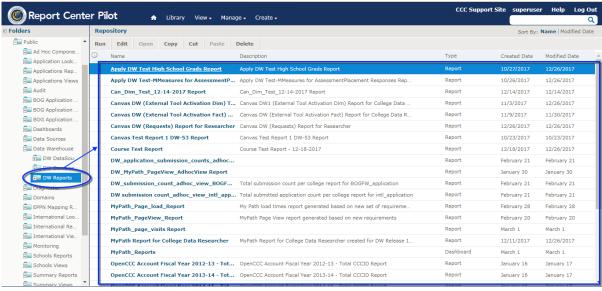
See the View tutorial link for the Ad Hoc Views workflow on the DW Report Server's Home page to access a video with further details.

Accessing and Running Reports

Use the following steps to access the Data Warehouse reports once you are logged in to the DW Report Server.

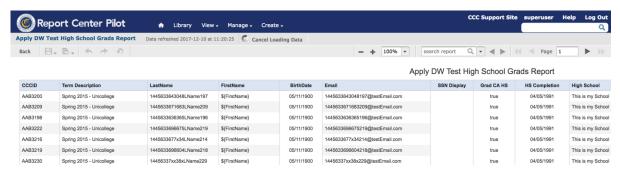
1. Click $View \rightarrow Repository$ to display the repository Folders in a navigation panel on the left side of the screen.

2. From the navigation panel, click the *Public* folder \rightarrow *Data Warehouse* folder \rightarrow *DW Reports* folder to display the available reports for the Data Warehouse.



3. Click a linked report *Name* to run the report. Some reports will display results automatically while others may prompt you for parameters to refine the report results first via an *Input Controls* dialog box.

Example 1: The Apply DW Test High School Grade Report (takes no inputs and runs automatically)



Example 2: The Canvas DW Report 1 for College Data Researchers Report (takes inputs before running)



You can take the following actions in the *Input Controls* dialog box:

- accept the default field values and click Apply to run the report
- click in the field and edit the value and then click **Apply** to run the report
- click the calendar icon at the right of each field to display a calendar where you click and select a date and then click Apply to run the report



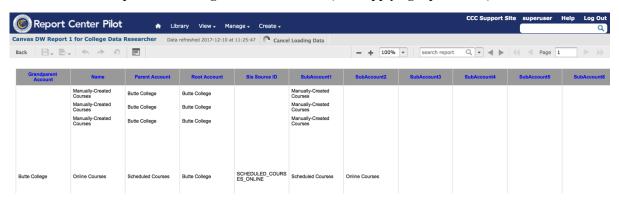
Note: Once you click a date in the calendar automatically closes.

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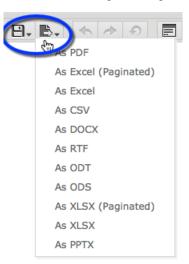
When you run a report that prompts you to enter a date and time, even if you do not need to use time as a measure for your results, you must enter at least 1 second in the time field in order for the report to return results properly.

After the report runs with input values, the *Input Controls* dialog box continues to display, which allows you to change the inputs, if needed. Use the table below to decide what action to take in the *Input Controls* dialog box.

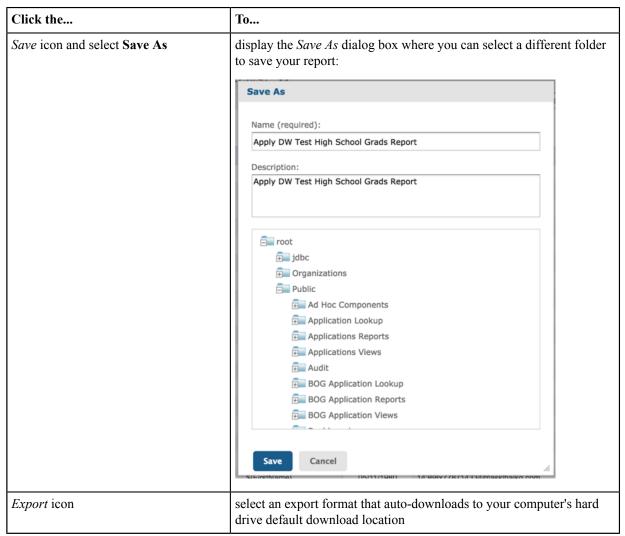
The Canvas DW Report 1 for College Data Researchers (after applying input values):



4. You can save the report or export the report into a variety of file formats.



Click the	То
Save icon and select Save	save the report to the default DW Reports folder



5. After running and/or exporting a report, click $View \rightarrow Repository$ to return to the DW Reports repository to view the list of reports.

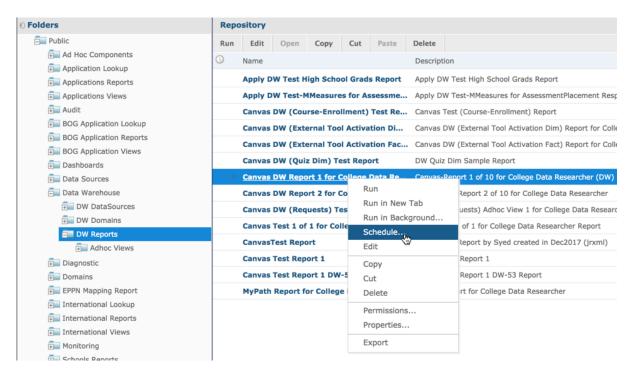
A Note on Standard Reports

This reporting guide encompasses details for accessing and running the Data Warehouse reports. There are other, standard reports that are specific to applications such as CCCApply, the CC Promise Grant application, and the CCCApply International application that are covered under the CCC Apply Report Center User Guide located and the CCCApply User Guides page. However, these reports are not based on Data Warehouse data, but data specific to those applications only.

For the purposes of this DW Report Server "quick start" guide, it is assumed you are accessing reports by clicking *View -> Repository* to view the Public, Data Warehouse reports.

Scheduling Reports

You can schedule a report to run at a specific date and time, including a recurring time frame (every Friday at 9 am. for example). The image below is an example of how you begin this process.



When you right-click a report Name, a pop-up menu displays and you can click the Schedule... option to open a Scheduled Jobs window that allows you to configure your scheduled report.

See the online help topic under the Reports workflow View tutorial link. At around the 3:35 mark the tutorial begins to demonstrate scheduling a report.

Creating a Custom Dashboard

Jaspersoft includes a Dashboard designer where you can combines data and graphics to visually display a summary of the data you're interested in. This section covers creating a custom dashboard with Data Warehouse data. The Jasper Reports Server Dashboards Video covers most of the details for creating custom dashboards, so only the main steps will be included below to get you started.

The overall custom Dashboard creation process involves:

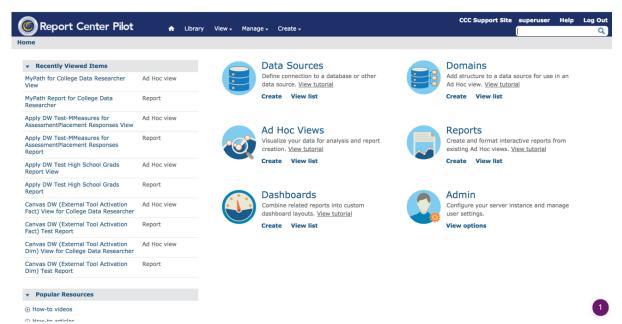
- 1. Dragging Dashlets one at a time onto the Dashboard Designer canvas.
- 2. Selecting your data source (domain sources only), selecting other options as prompted, as well as entering values, for each Dashlet.
- **3.** Double-clicking each dashlet to configure formatting and other properties.
- **4.** Resizing and moving Dashlets on the Dashboard Designer canvas.
- **5.** Previewing your Dashboard display in display mode.
- **6.** Saving your new Dashboard.

Use the steps below to create a new custom Dashboard from Data Warehouse data sources.

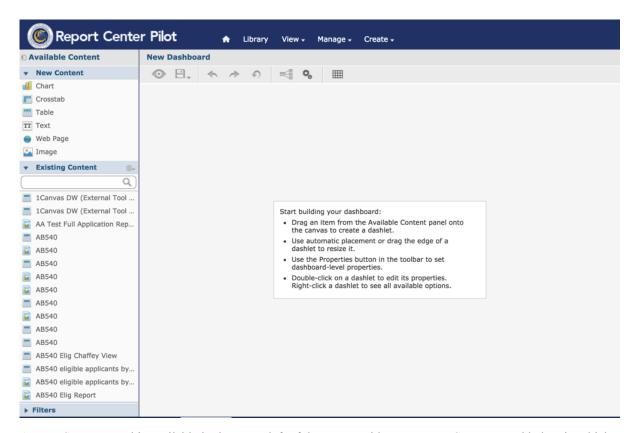
1. Navigate to the Pilot DW Report Server URL for your college and enter your college credentials.



2. Click the Sign In button to sign into the DW Report Server and display the Home page.

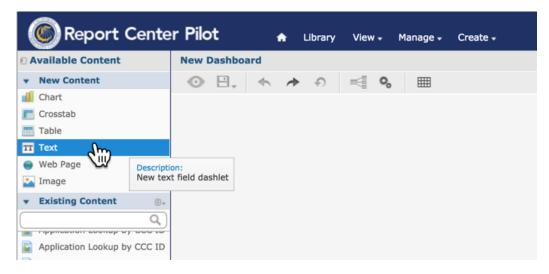


3. From the Home page, select Create -> Dashboard from the DW Report Server menu bar, or click the Create link beneath the Dashboards workflow icon, to display the New Dashboard canvas in the Dashboard Designer.

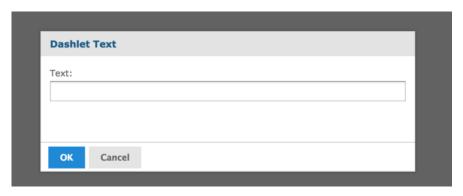


A New Content panel is available in the upper left of the screen with an Existing Content panel below it, which contains existing Ad Hoc Views and reports. If you want to create a Custom Dashboard from an Ad Hoc View, you must first create that Ad Hoc View following the instructions in Creating Ad Hoc Views and Reports on page 10.

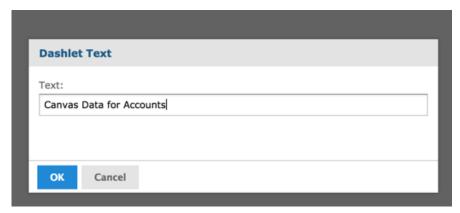
4. To create a dashboard from new content, click to select a "dashlet" from the New Content panel and drag it right onto the Dashboard Designer canvas.



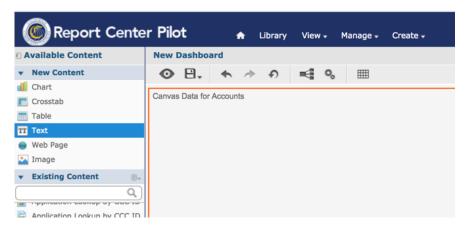
Most dashlets prompt you for further data input. The Text Dashlet prompts you to enter the text you want to display in the dashboard, for example:



a. Enter text or select values as prompted.

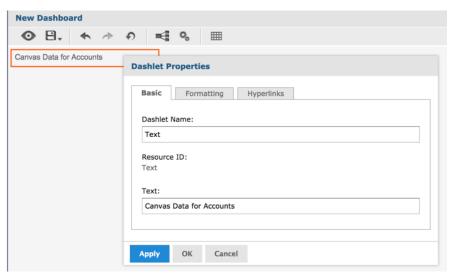


b. Click **OK** to view the Dashboard with your selection.

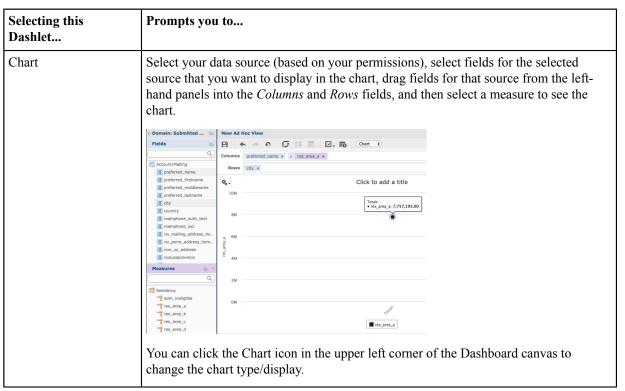


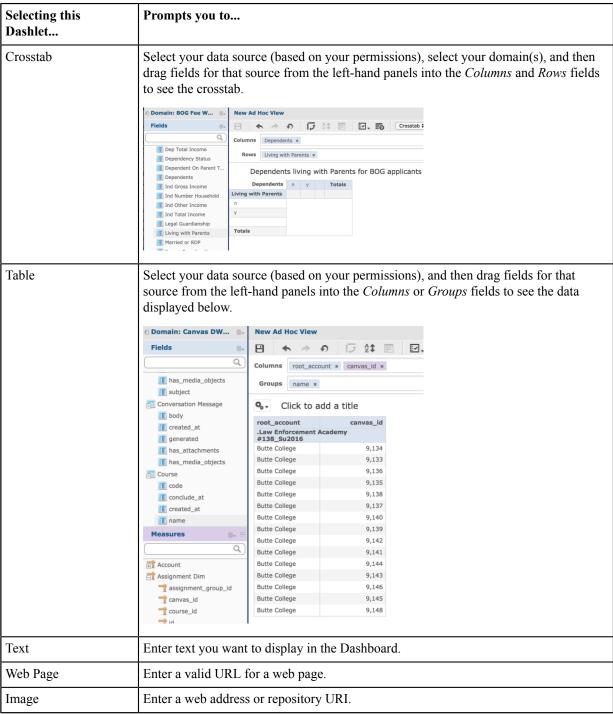
The default display shows your selected dashlet across the entire Dashboard Designer canvas.

- c. Click and drag the red border to change the size and location on the canvas for the dashlet you just added to the
- **d.** Double click the dashlet to display a context menu with more formatting options.



- e. Make your selections and click **Apply** and then **OK** to see them displayed.
- 5. Select another dashlet by clicking and dragging it onto the canvas. See the table below for details.





- 6. After you have selected all the dashlets you want on your custom Dashboard, click each displayed dashlet's border to adjust its width and position until you are happy with the display.
- 7. Click the **Save** button to save your Dashboard.

Don't forget to view Jaspersoft's video tutorial JasperReports Server Dashboards Video for more details.