BizViz Desktop Designer User Guide

BizViz Desktop Designer 1.0

Table of Contents

1. About this Guide

1.1. Document History

Product Version	Date (Release date)	Description
BizViz Dashboard Designer App 1.0	June 20th, 2015	First Release of the document

1.2. Overview

This guide covers:
- Explanation and usage of all the menu options
- Connecting to data and dashboard creation of dashboards
- Explanation and usage of the dashboard components
- Publishing and sharing of dashboards

1.3. Target Audience

This guide is aimed at users who wish to create dashboards by connecting to a wide range of data sources.

1.4. Prerequisites and Supported Devices

Prerequisites:
- Browser that supports HTML5
- Windows 7 Operating System
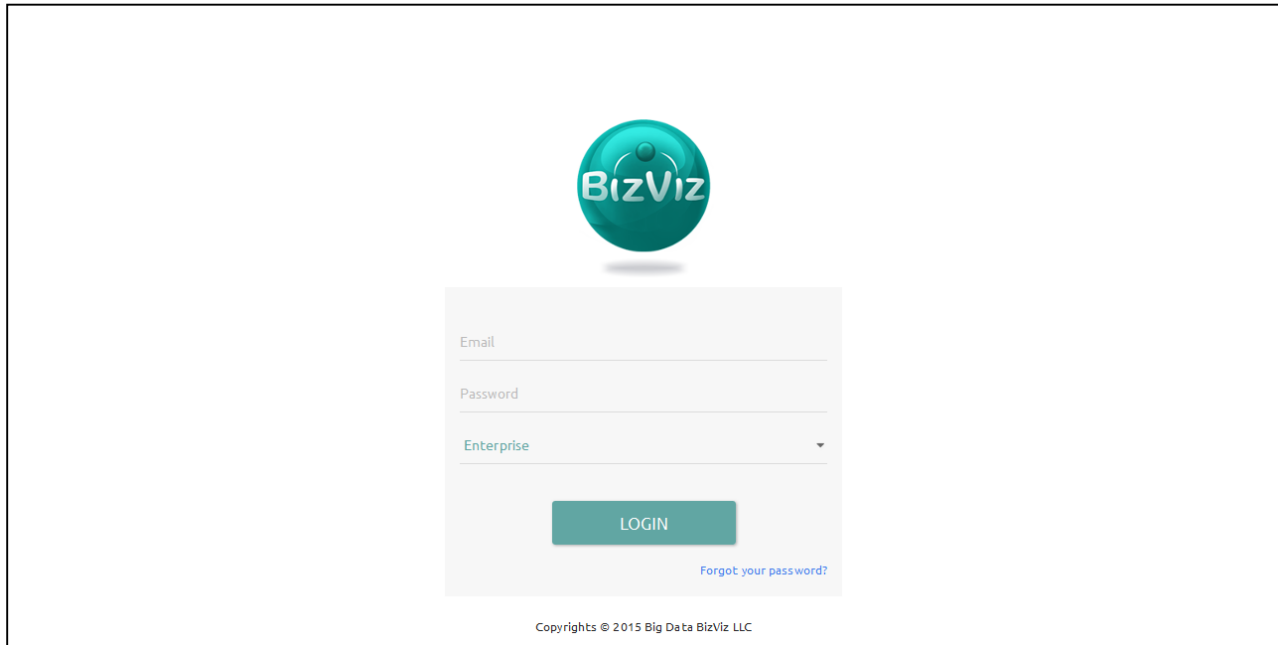
2. Getting Started

2.1. The BizViz Environment

This section covers how to access the BizViz Dashboard Designer, how to organize your work space, and workspace properties.

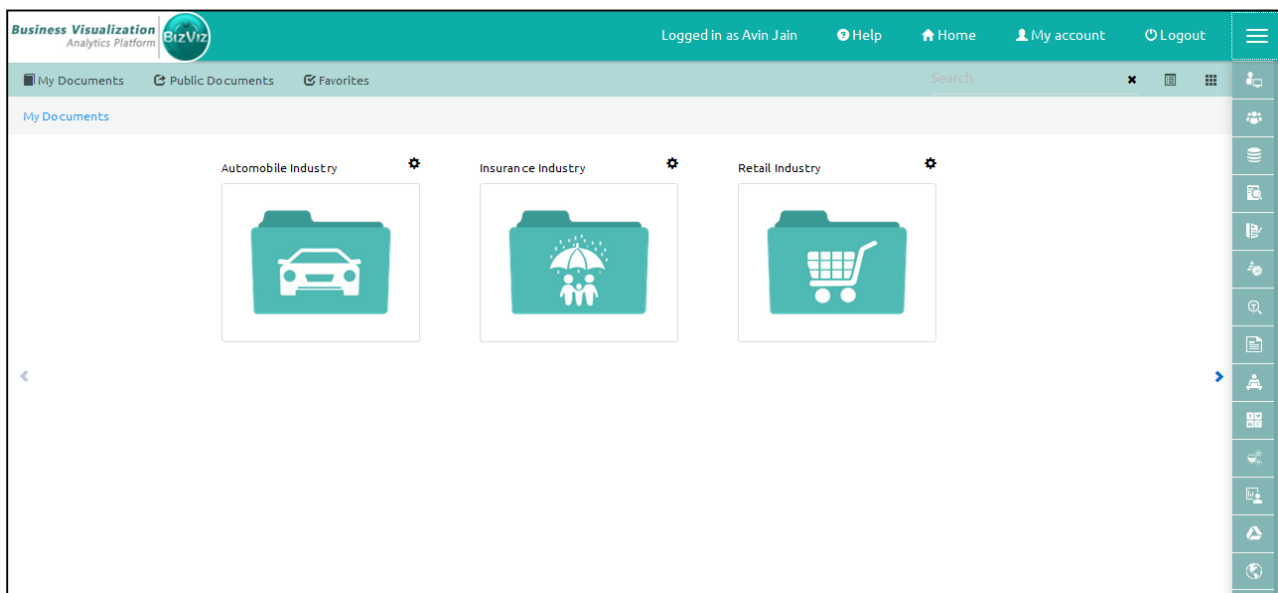**Opening and Closing Dashboard Designer**
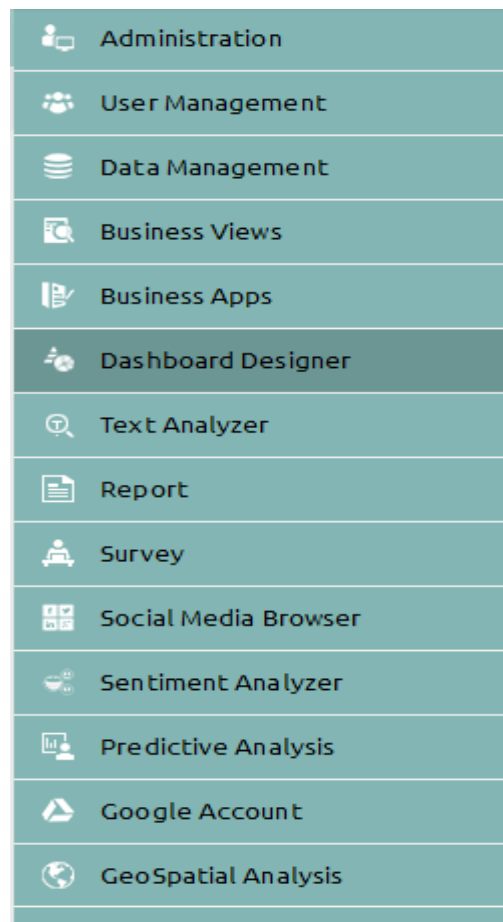
Opening Dashboard Designer

Login to the Portal:

i) Enter in the URL bar → **http://www.bdibizviz.com/app/**

ii) Enter your credentials.

iii)   Click the '**Login'** button. You will be taken to the Portal Home Screen.


iv) Click the **'Menu'** icon (located at the top right corner of the portal home screen) to display a list of installed apps. Apps are BizViz portal modules or plug-ins that provide specific functionality or can be used to extend the capabilities of BizViz portal. Some apps come as standard with the BizViz portal (ex. Administrator) and others must be licensed separately before they are made available in the portal.
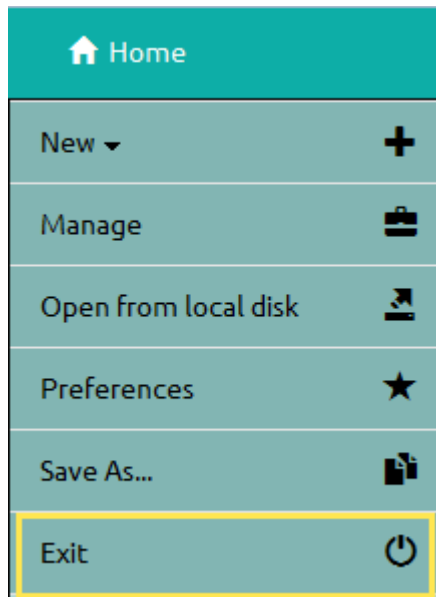
4

v) Select 'Dashboard **Designer'** (as shown above).

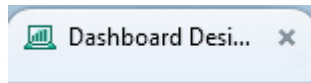Doing so will open a new webpage.

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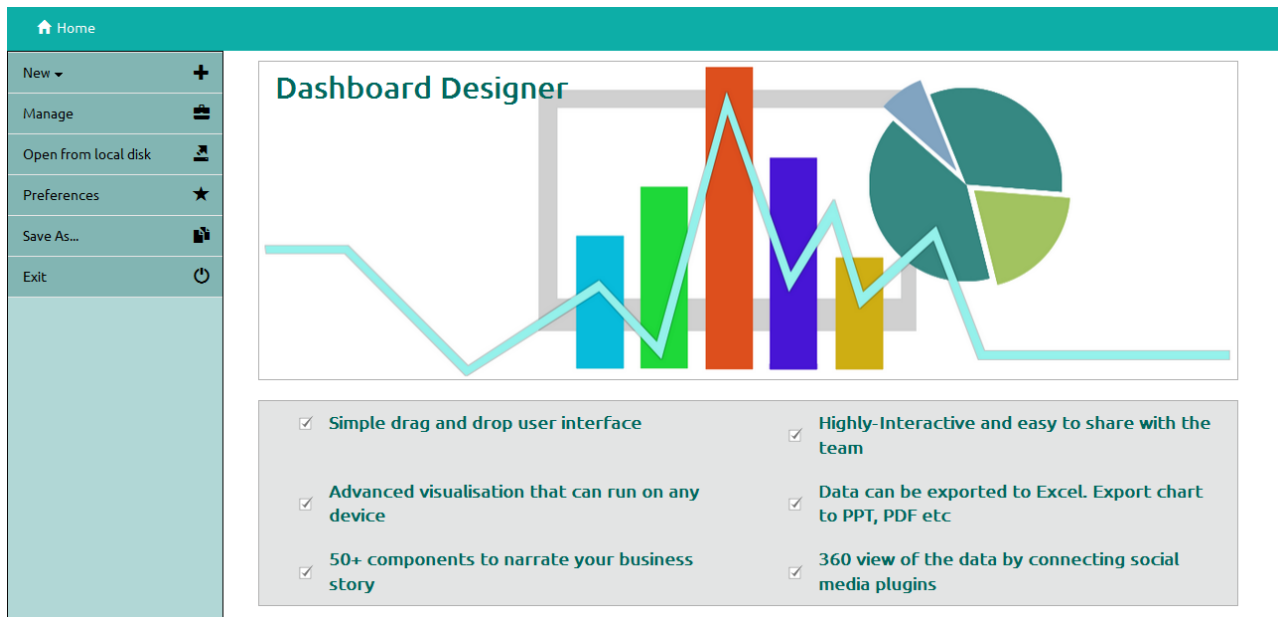
Closing Dashboard Designer

Once you have completed creating a dashboard, save your work and use one of the following options to close the Designer.
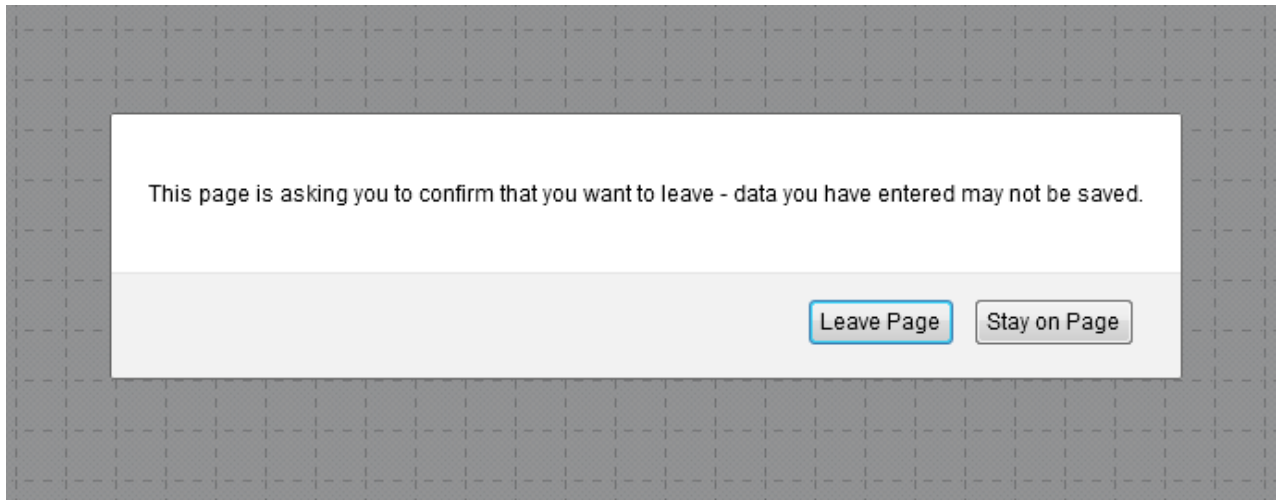
- From the Dashboard Designer home screen, click the **'Exit'** icon [icon] (as shown below)

- Click the **'Close'** button (the 'X' on the right edge) of the Dashboard Designer tab
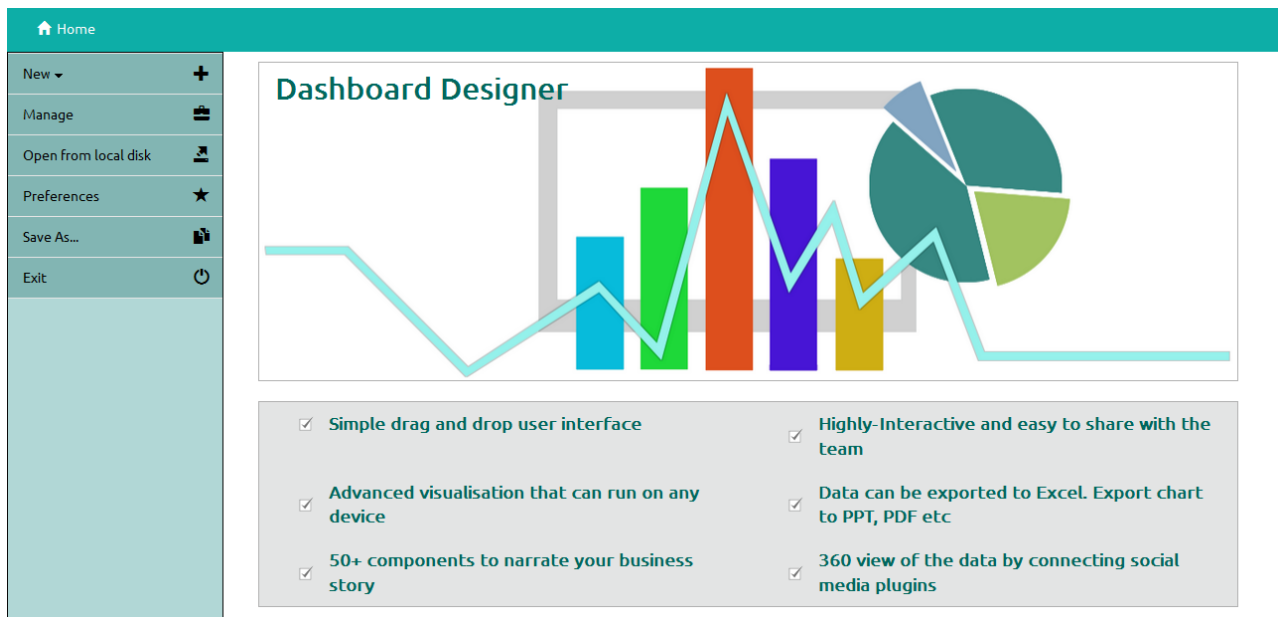
If you have not saved your work, you will be given the option to stay on the page or leave. If you have not yet saved your work, select 'Stay on Page' and then save your work before exiting the page.

2.2. Home Page

When opening the BizViz Dashboard Designer, you will see icons in the left pane that will help users in connecting, creating, and sharing dashboards.

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Description of icons on the Dashboard Designer Home Page:

Icon	Name	Description
	New Dashboard/Workspace	**Dashboard:** Place where new dashboard are created
	Manage	Use to Re-name, Open, Save-to-disk, Move, Publish, and Delete dashboards.
	Open From Local Disk	Opens locally saved dashboards
	Preferences	Configure dashboard settings (**ex**. Background color, size, etc…)
	Save As	Options to save dashboards
	Exit	Exit Designer

2.2.1. BizViz Dashboard Designer Workspace

BizViz Dashboard Designer Workspace can be thought of as a folder that will contains Data Source connections, Components, Dashboard Objects, Component Attributes.

A wide range of filters, charts, and Data grids are available that can be used to create a dashboard.

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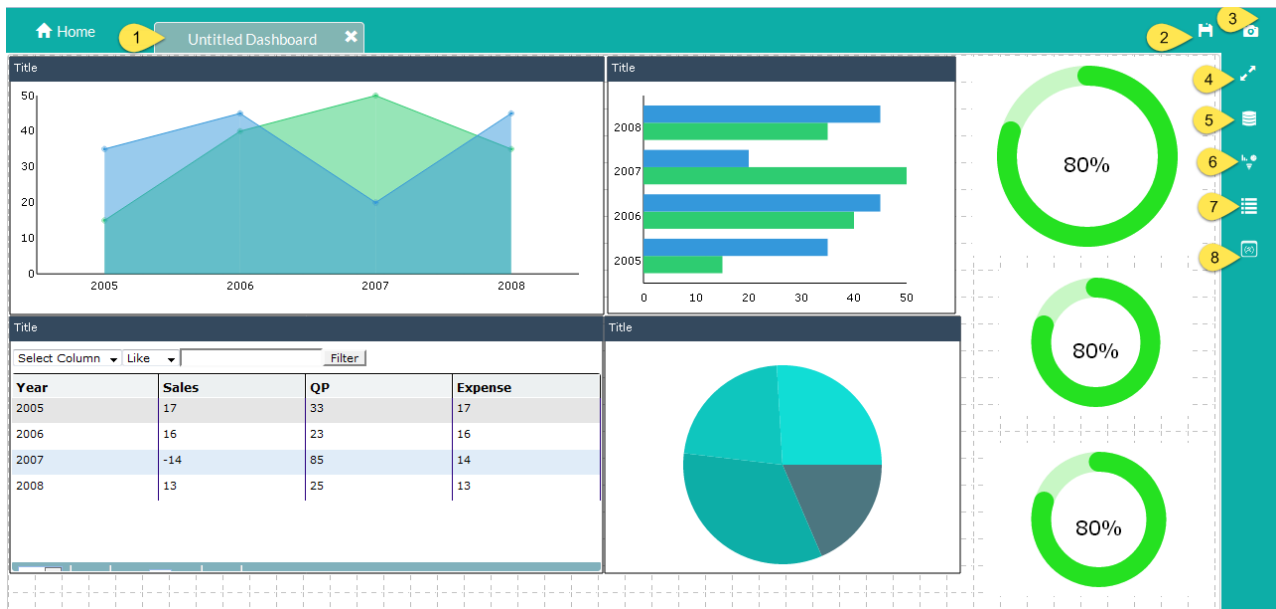
Explaining the numbering flow from the above image:

1. **Tab:** Place where dashboard design takes place. Drag and Drag charts and components here to create dashboards.
2. **Save:** option used to save the created dashboards
3. **Preview:** Option used to view the design layout of the dashboard.
4. **Maximize:** Option used to maximize the dashboard for better viewing.
5. **Data Source:** Option to connect to wide range of data sources.
6. **Components:** Include compelling range of charts, filters and data grids.
7. **Dashboard Objects:** Option used to lock, hide and layout ordering of the components on the dashboard.
8. **Component Attribute:**

2.2.2. Creating a Dashboard

This section covers how to create dashboards.

1. Click on the **'New +'** button to create a workspace, as shown below.
- **Workspace**: A folder like grouping that contains previously created dashboards.
- **Dashboard**: A place where design and development of dashboards takes place.

2. Click on **'Dashboard'** button to create a dashboard

New>Dashboard
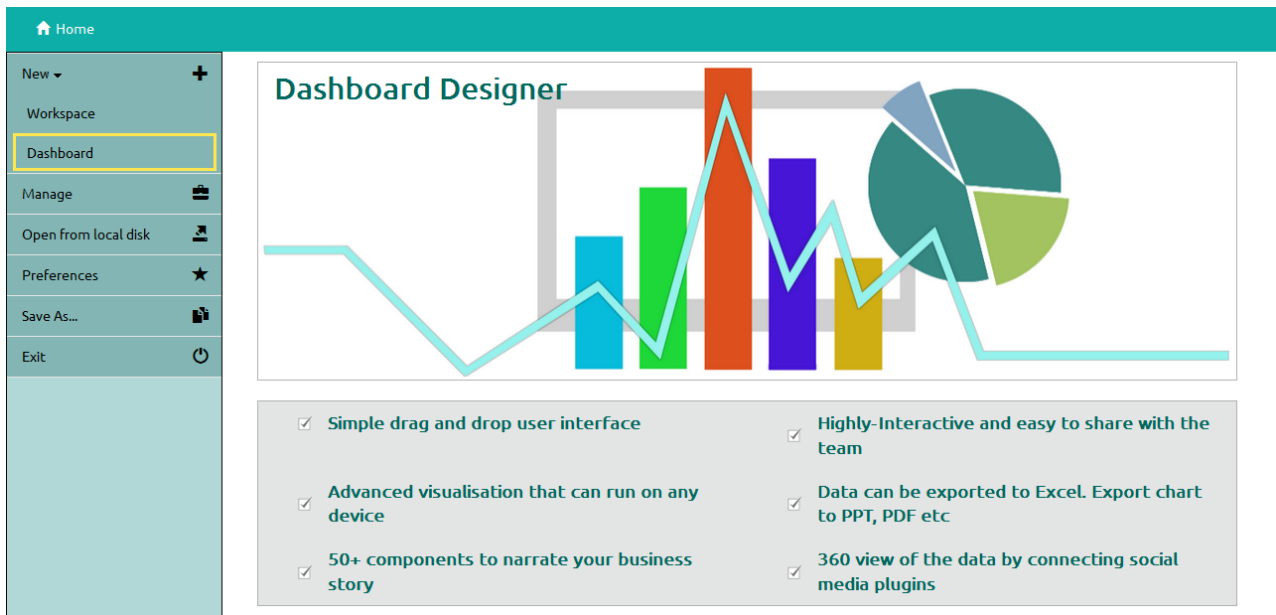
3. After Clicking on the **'Dashboard'** button, a web page will open in a new window.
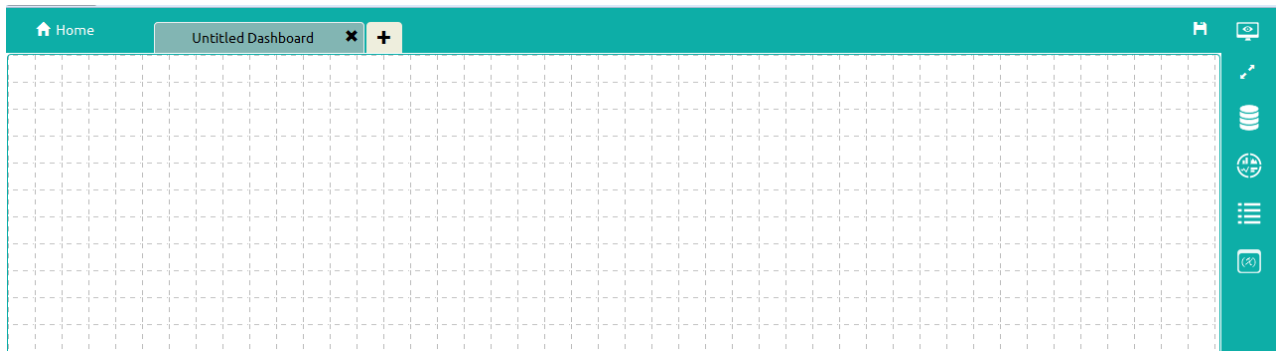
4. Click on **'Data Source'** icon provided to the right side of the canvas, and view the database connectivity options (**Ex:** CSV, Excel, and Web-Service).

5. Click on the ✚ icon to create a new connection.

Fill in the necessary details:

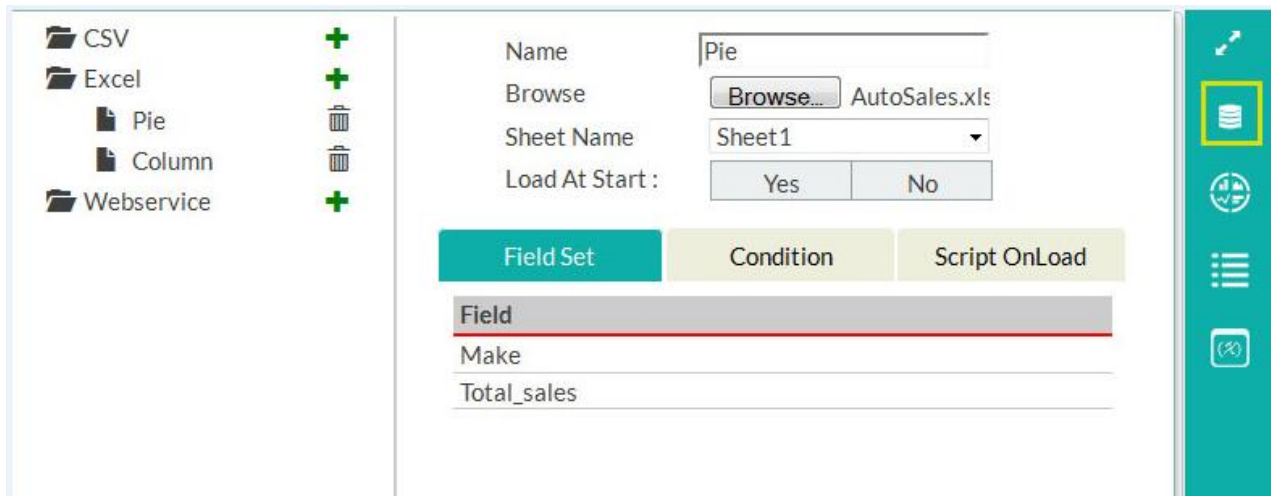- **Name:** Name the connection
- **Browse:** Navigate to the Excel file that you wish to use as a data-source
- **Sheet Name:** Select the sheet you wish to use from the Excel file you have selected
- **Load at Start:** Enabling this option refreshes the data-source before opening the charts

1. Click on the **'Charts'** icon provided at right side of the canvas.
   - Drag and Drop a Pie-Chart and Column chart onto the canvas.
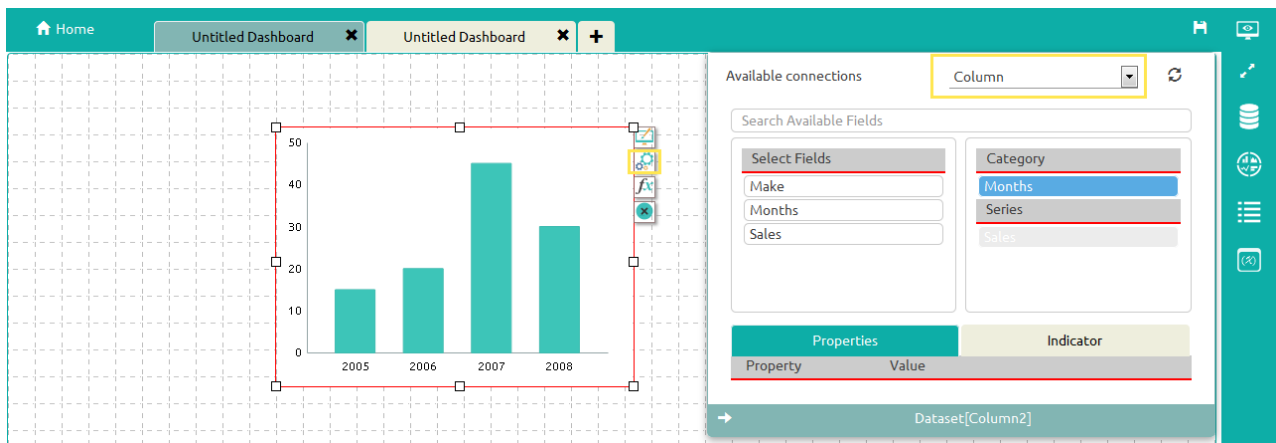
11
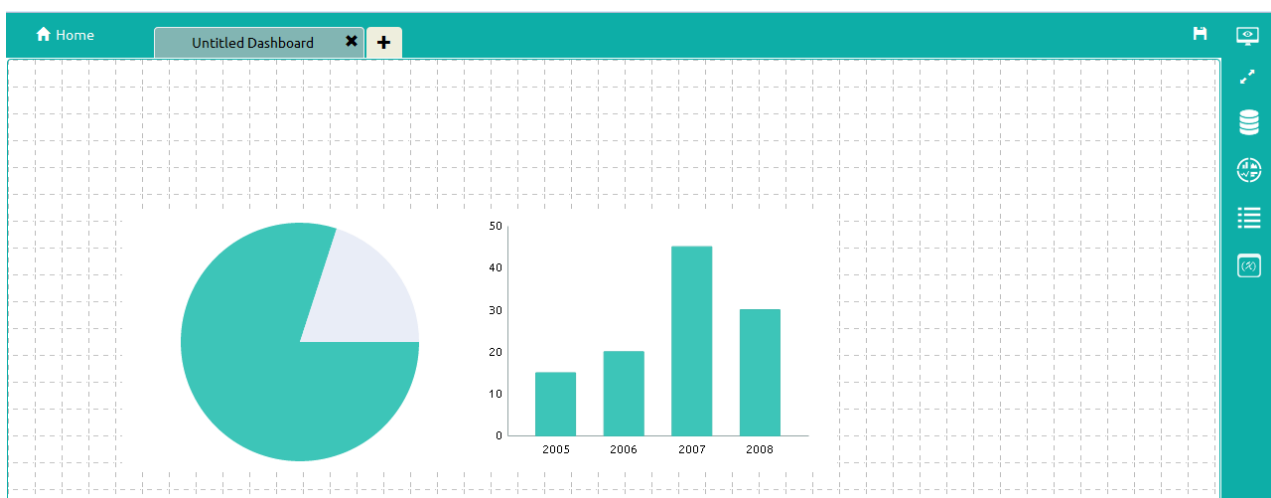
2. Connect the Column chart to the created data connection (i.e. **Column**).
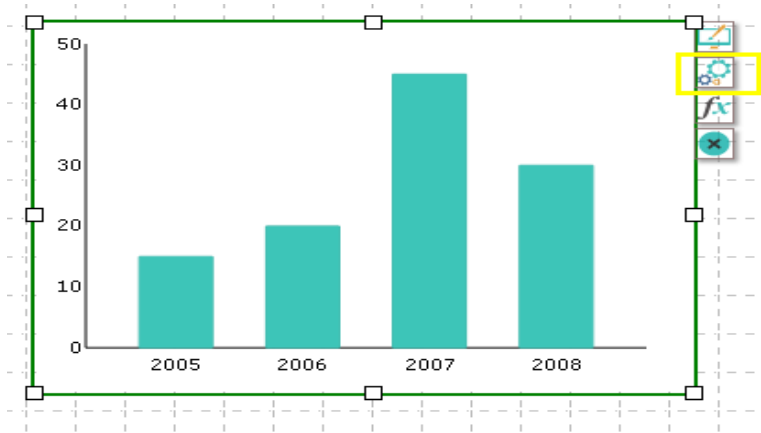
- Click on the settings icon [icon] that appears next to the each chart.
- Select the connection from the **'Available Connections'** dropdown menu (Ex: **Sample**).
- Drag and Drop the respected fields to 'Series' and 'Category'.

3. Connect the Pie chart to the created data connection (i.e. **Pie**).
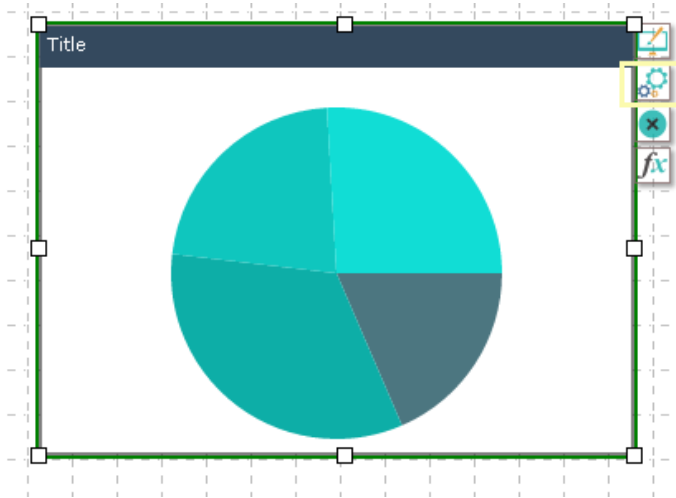
- Click on the settings icon ⚙ that appears next to the chart.
- Select the connection from the **'Available Connections'** dropdown menu (Ex: **Pie**).
- Drag and Drop the respected fields to 'Series' and 'Category'.

3. Connecting to Data

This section explains via a step-by-step tutorial, how to connect to the available data sources, managing, and explaining the 'Condition' and 'Script on Load' options.

3.1.1. Supported Data Source Connections

This section covers how to create a basic data connection, creation of scripts and conditions. Currently BizViz Dashboard Designer supports the following connection types:

- Excel
- CSV
- Web service

3.1.2. How to Connect to a Data Source

Click on **'Data source'** icon ▤ provided to the right side of the canvas, and you will be presented with the database connectivity options (Ex: CSV, Excel and Web-Service).

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a) Connectiong to a CSV data source

Click on the ✚ icon to create a new connection.
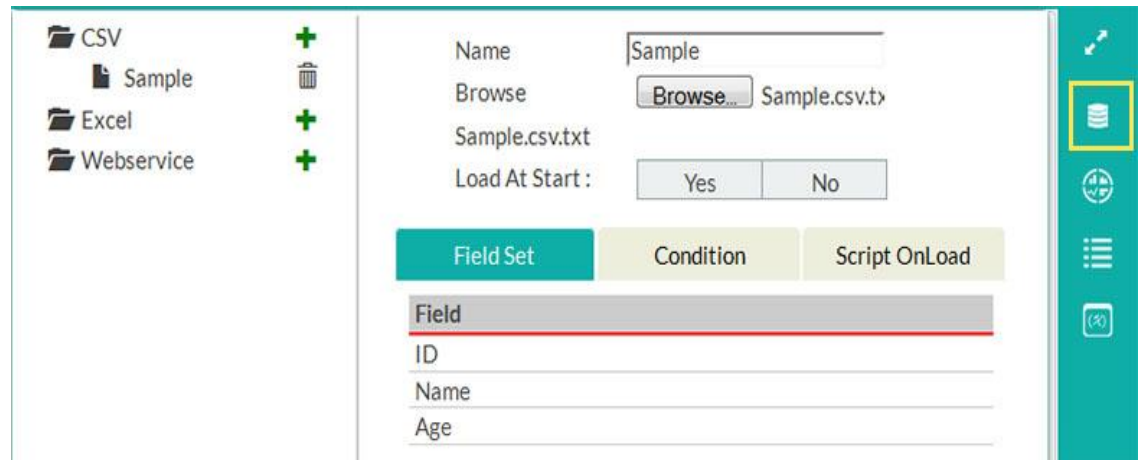
- **Name:** Name the connection
- **Browse:** Navigate to the folder where the .csv file is located
- **Load at Start:** Enabling this option causes the data to be updated before it is loaded into charts.

Field Set tab: Once the data connection has been established, all the fields available in the data source will be displayed under the 'Field Set' tab.

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Condition tab: Use this tab to filter values based on a given condition.

Ex: In the above screen image, we have selected 'ID = 099' as the condition.

By enabling the checkbox [✓] present under Action column only data that meets the condition→ 'ID = 099' will be displayed in the dashboard.

Script OnLoad tab: A script will be triggered to produce some action on a component. (Please refer to the **'Dynamic Visibility'** how-to-guide).

b) **Connecting to Excel**
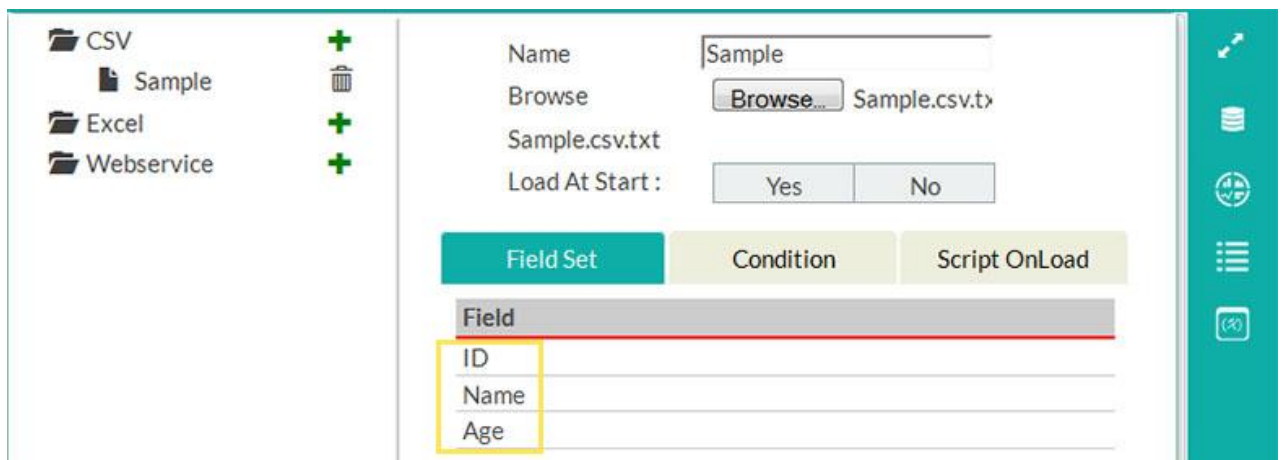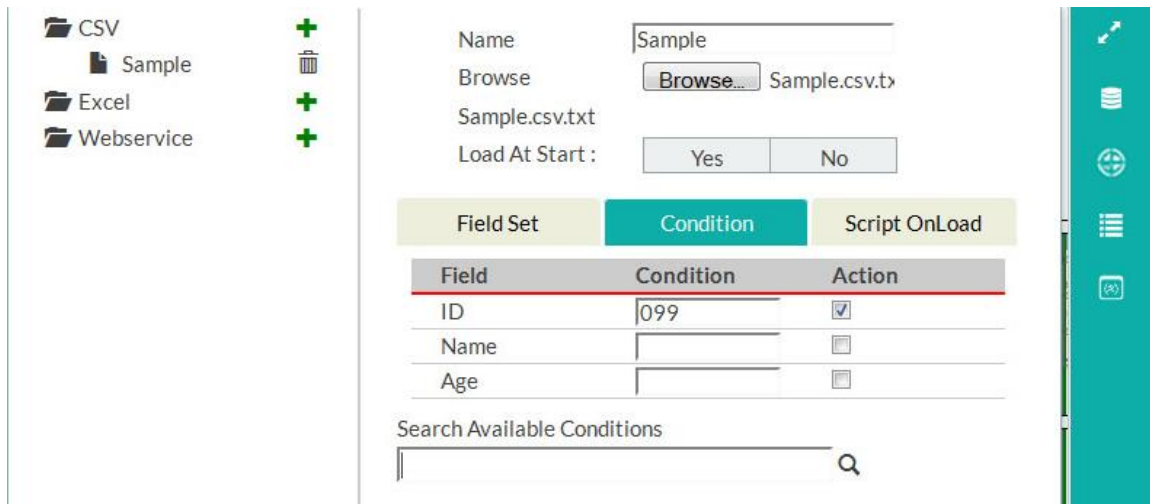
This example discusses how to create connection for .Excel file formats.

Click on the [+] icon to create a new connection.

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- **Name:** Name the connection
- **Browse:** Navigate to the folder where the Excel file is located.
- **Load at Start:** Enabling this option makes the data Up-to-date before loading into charts

Field Set tab: Once the data connection is established all the fields available in the data will be displayed under this tab.

Condition: Use this tab to filter values based on a given condition.

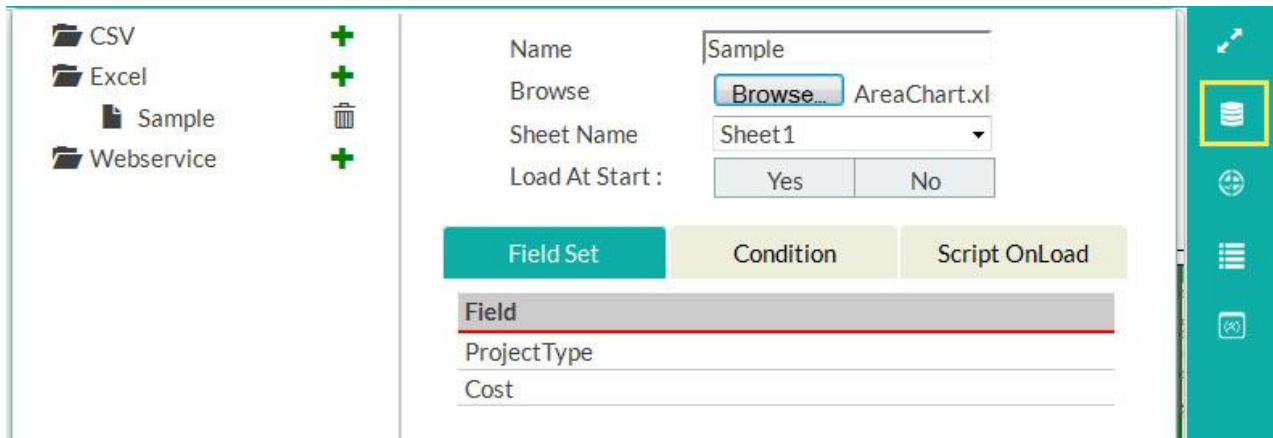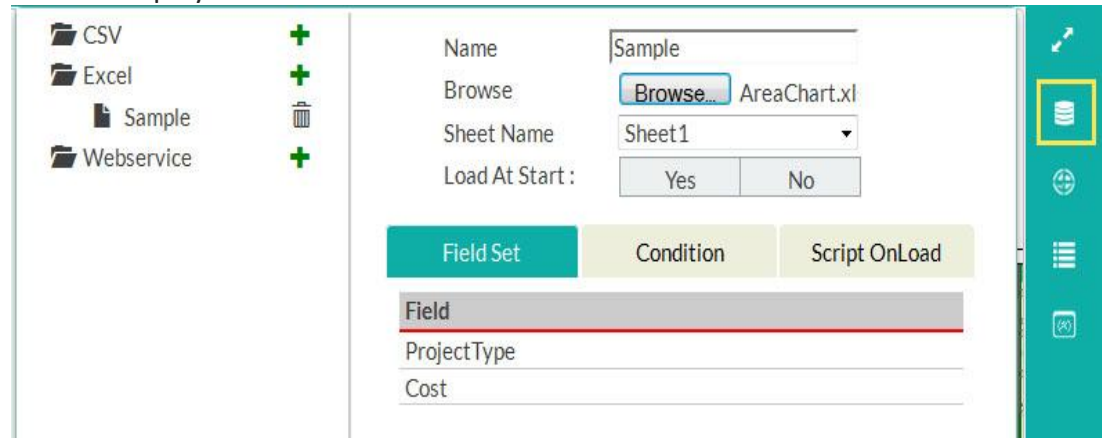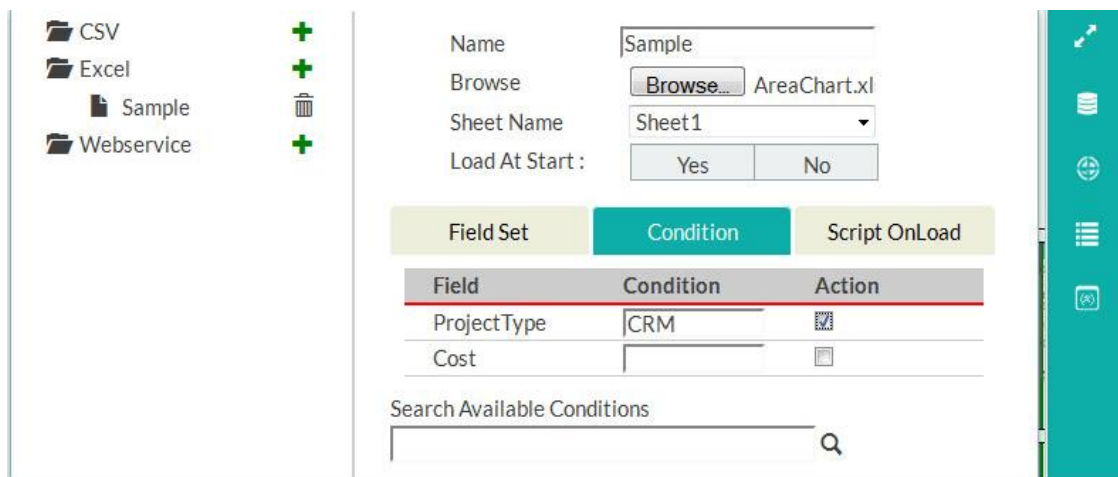**EX:** In the above screen image, we have selected 'Project Type = CRM' as the condition. By enabling the checkbox present under Action column, only data Project Type is equal to 'CRM' will be displayed in the dashboard.

Script OnLoad tab: A script will be triggered to produce some action on a component. (Please refer to the **'Dynamic Visibility'** how-to-guide).

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c) **Connecting to a Web Service**
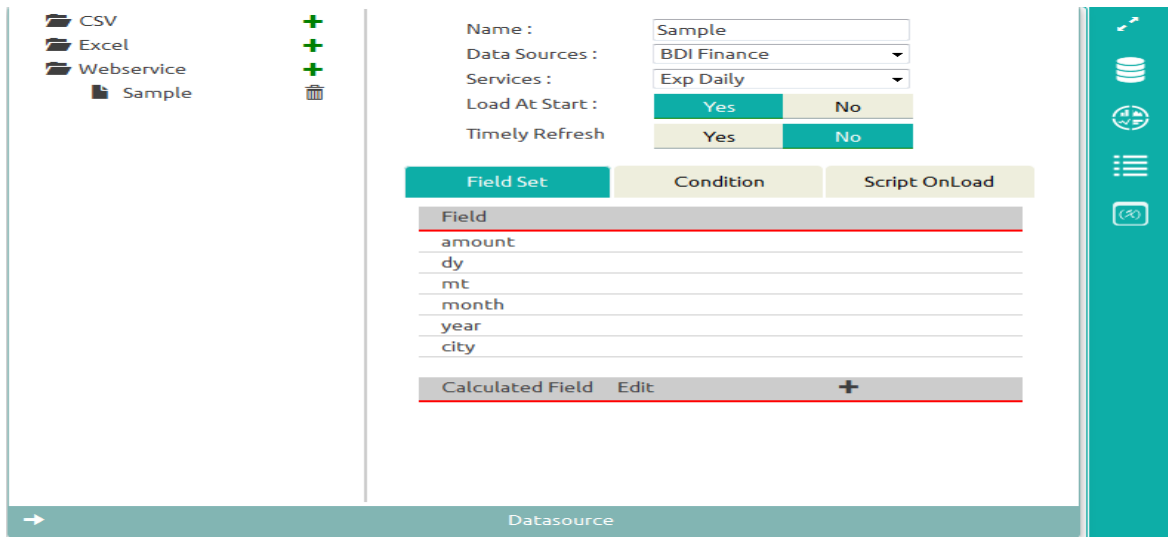
This example explains how to connect to a BizViz Web service. In the BizViz portal, a Data management plug-in is available which is used to manage all the connections to data sources.

Click on ✚ icon to create a new connection.

Fill in the following details:

- **Name:** Name the connection
- **Data Sources:** Select a Data Source from the list (all data-sources created in Data-Management will be listed here)
- **Services:** Select a query name from the list (all queries created on a particular database will be listed here)
- **Load at Start:** Enabling this option updates the data before loading it into the charts
- **Timely Refresh:** Data will be updated at periodic intervals
- **Field Set**: Fields available in the uploaded file will be displayed.
- **Condition**: Fields used as filters in the query will be displayed here. These conditions will be applied when connection is made using a web service.
- **Script on Load**: Scripts can be written to trigger a function.

Field Set Tab: Once the data connection has been established, all the fields available in the data will be displayed under this tab.
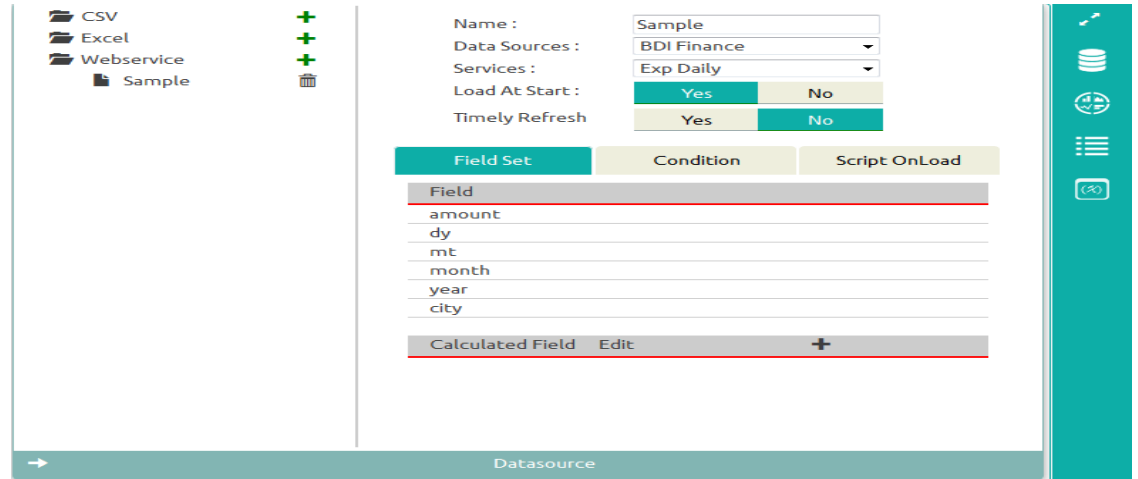
Condition: Use this tab to filter values based on a given condition.
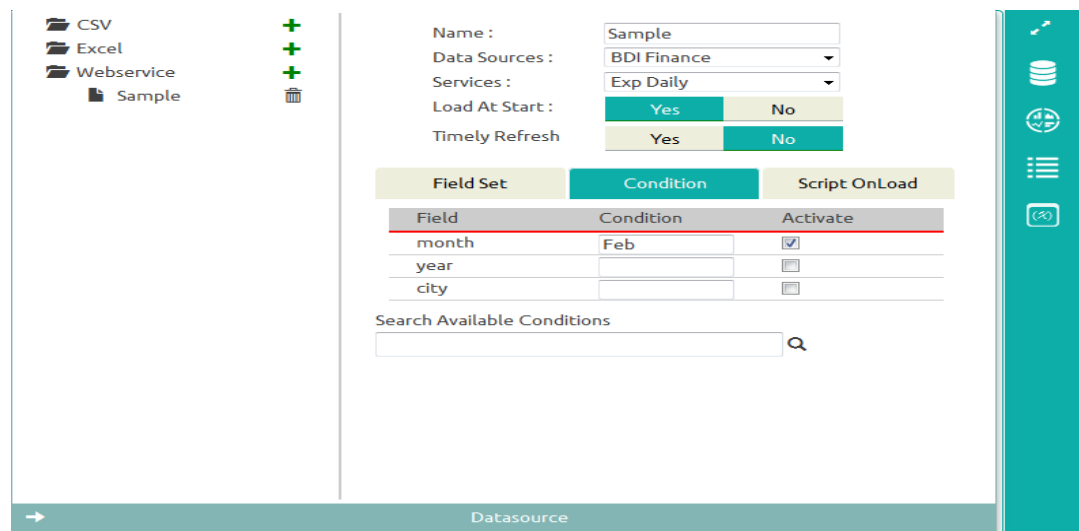
Ex: In the above screen image, we have selected Month = 'Feb' as the condition.

By enabling the checkbox ☑ present under Action column, only data where Month is equal to 'Feb' will be displayed in the dashboard.

Script OnLoad tab: A script will be triggered to produce some action on a component. (Please refer to the **'Dynamic Visibility'** how-to-guide).

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4. Dashboard Objects

Every component in the dashboard is considered as an object. The Object browser will display the properties for each of the objects and be used to lock, hide, delete, duplicate and arrange the component on the dashboard.

4.1. Object Browser Window Properties

Each component that has been dragged into the canvas will be listed in the Object browser. In the object browser, each component is listed.
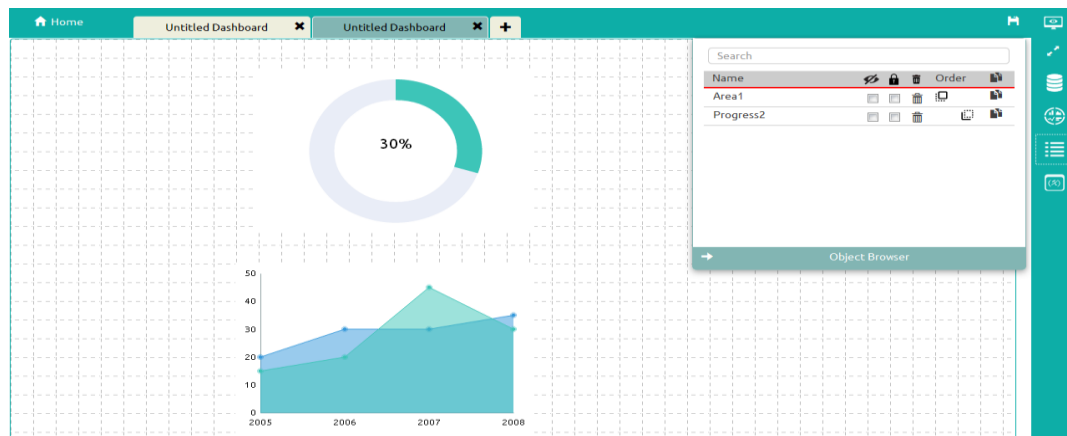
In the above screen, we have two components on the Dashboard (Area chart and Progress chart). In the object browser, those components are listed. By enabling the check box for each component, ☑ you can hide any component.

4.1.1. Object Browser Properties:

i)   **Hide All** ⍉ : By clicking this icon, all the components which are present in the dashboard will be hidden. Users can hide each component individually by enabling the checkbox ☑ provided next to the name of the component (below the ⍉ icon).

ii) **Lock All** 🔒 : By clicking this icon, all the components which are present in the dashboard will be locked (i.e. components cannot be moved from one place to another within the dashboard). Users can lock the components individually by enabling the checkbox ☑ provided next to the name of the component (below the 🔒 icon).

iii) **Order:** Used to arrange components that are displayed on top of each other.

(need to explain how to use this function)

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iv) **Duplicate** : By clicking on this option, a copy of the component will be produced and placed on to the canvas.

v) **Search:** If there are numerous components on the dashboard, it may be difficult for users to find a particular component. To help with this, a search bar has been provided.

5. Component Attributes

Component Attributes consists of attributes and values of charts and components that have been dragged onto the canvas. It is used for:

a) Place where default values will be passed
b) Performing Dynamic Filtering

Passing Default Values: In the following tutorial, we will see how to pass default values to charts.

Ex: In this example scenario, assume that we have sales data for auto manufacturers. We would now like to view only data for the month of **'Aug'**. To accomplish this, we will need to perform the following steps:

i) Select the column chart component from the component list and drag it onto the canvas. (you can refer to the **Creating Dashboards** tutorial).
ii) Connect the Excel data source (auto sales data) (you can refer to the **Creating a Data Source Connection using Excel** tutorial)
iii) Click on the. 'Column Chart's data source connection and select the Condition tab and give input as 'Aug' in the text box.(as shown below).

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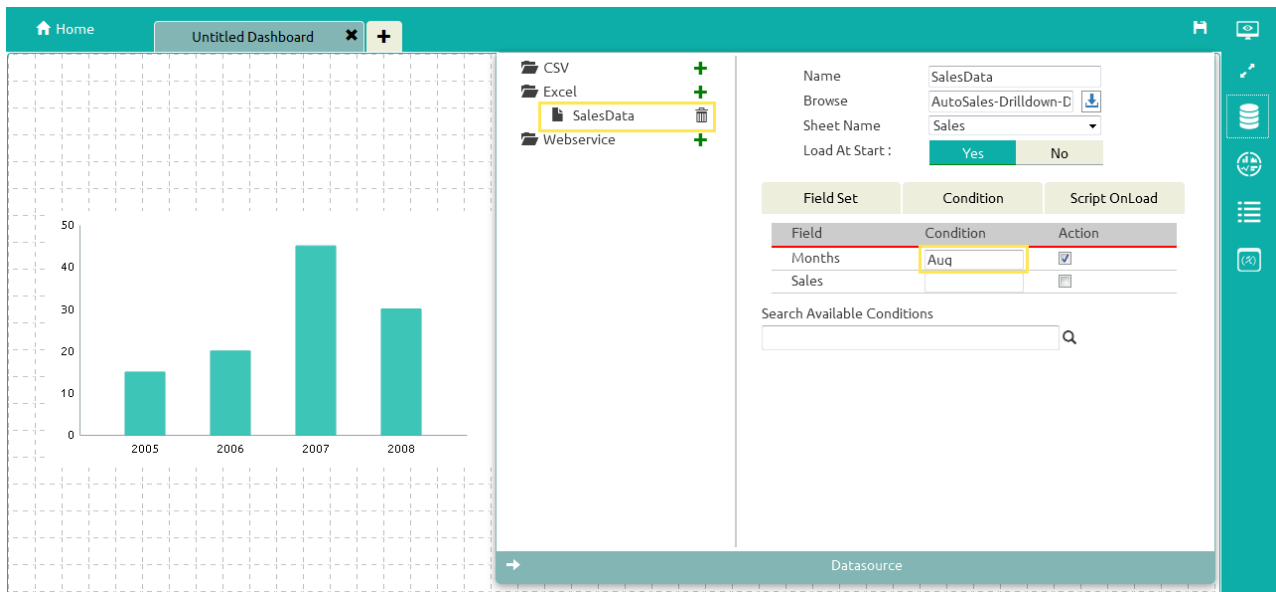
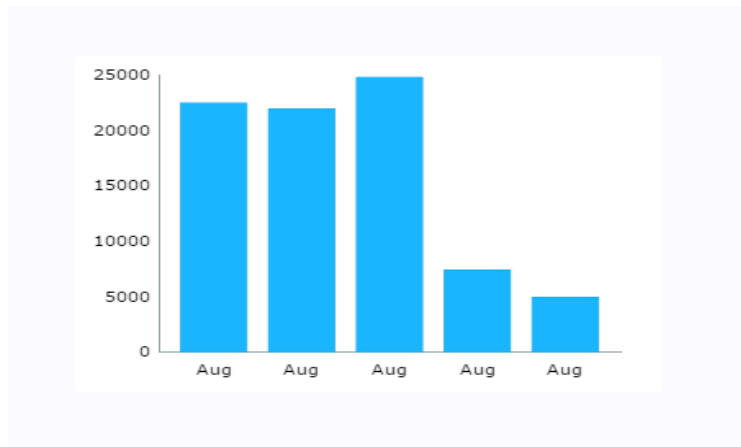iv) Click on the 'Preview' button to view the results.

Fig: Since the condition has been set to 'Aug', only August month data is displayed.

Performing Dynamic Filtering in a Dashboard: In this tutorial,we will explain how to perform dynamic filtering using filters and charts. Every component has attributes and values which can be seen in the **'Component Attributes'** window. By passing the values of one component into another component, dynamic filtering is achieved.

Scenario: We will perform filtering using Pie-Chart to Column chart

a) **Creating Data Source Connections for Charts**

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i) Go to the Dashboard Designer Home Screen, and click on the 'Data Source' icon.

ii) Click on the ✚ icon to create a new connection. In this tutorial we will select an Excel data connection.
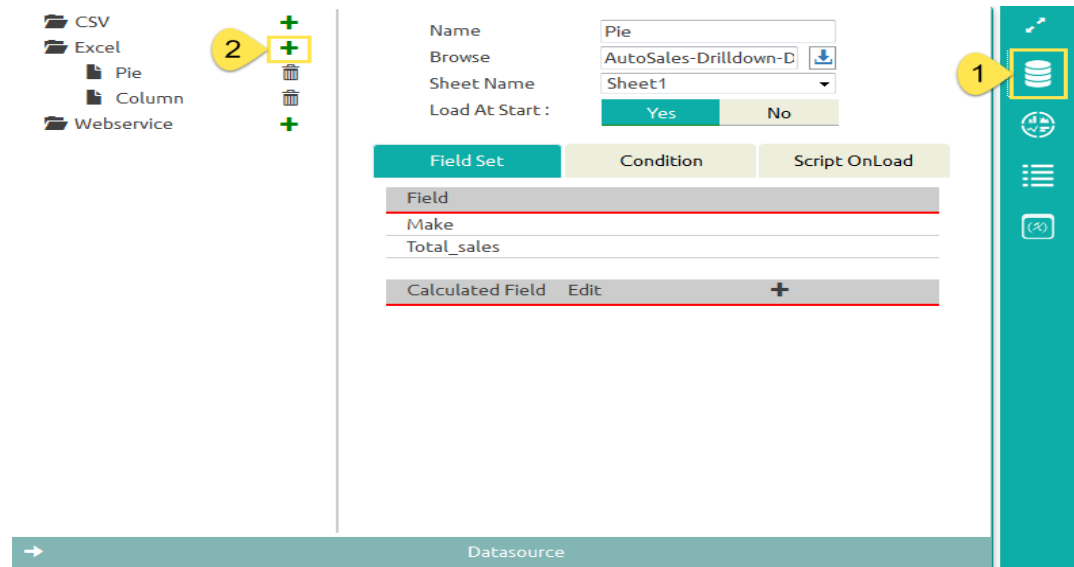
Note: As we will be performing drill-down analysis from the Pie-chart to the Column chart, we have created two data sources (Pie and Column).

Fill in the necessary details:

- **Name:** Name the connection
- **Browse:** Navigate to the Excel file that you wish to use as a data-source.
- **Sheet Name:** Select the sheet you wish to use from the Excel file you have selected.
- **Load at Start:** Enabling this option refreshes the data-source before opening the charts

iii) Click on the **'Charts'** icon provided to the right side to the canvas.
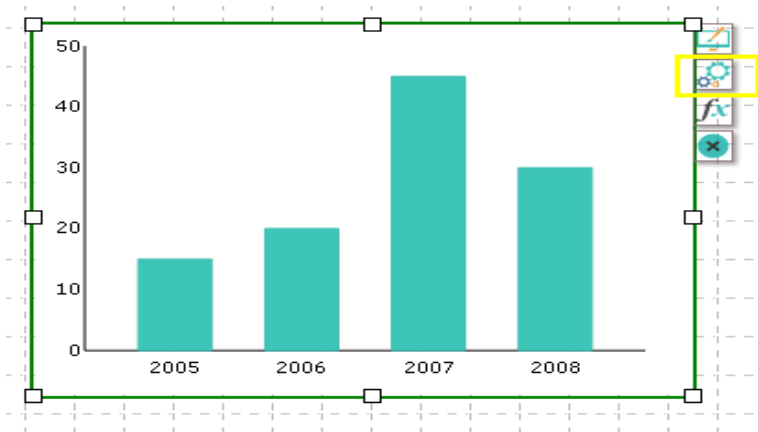
A list of available components will be displayed.

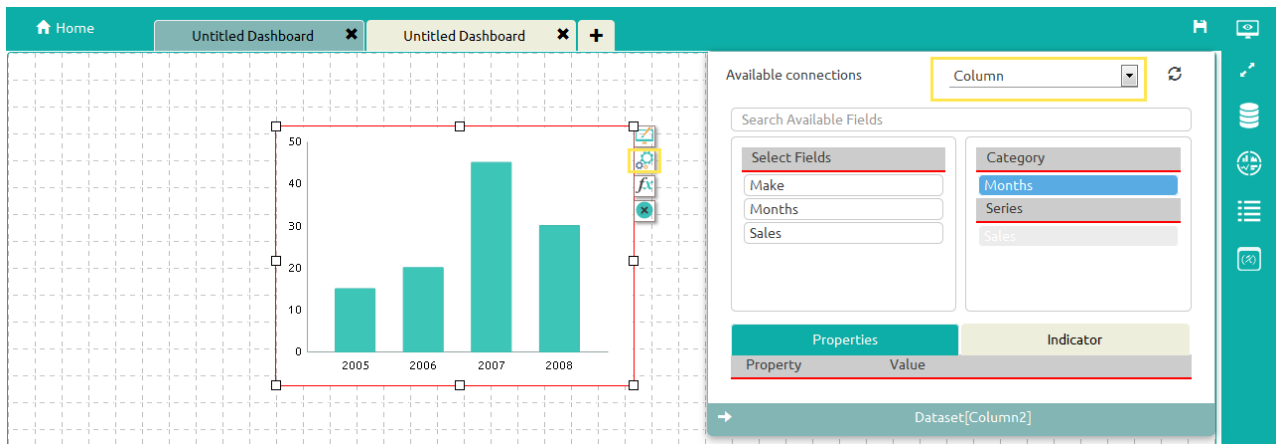Drag and drop the Pie-Chart and Column components onto the canvas.
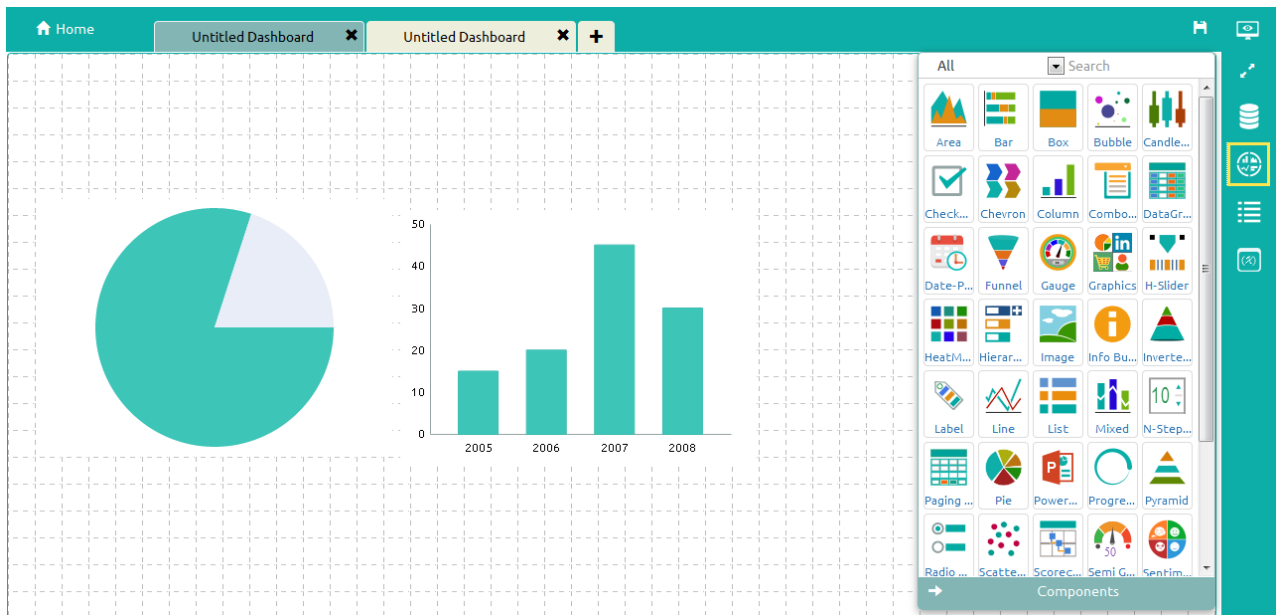
iv) Connecting the Column chart component to an existing data connection

- Click on the settings icon that appears next to the chart, as shown below (in the yellow box).

- Select the 'Column' connection from the **'Available Connections'** dropdown menu.
- Drag and drop the fields to their respective series and categories.
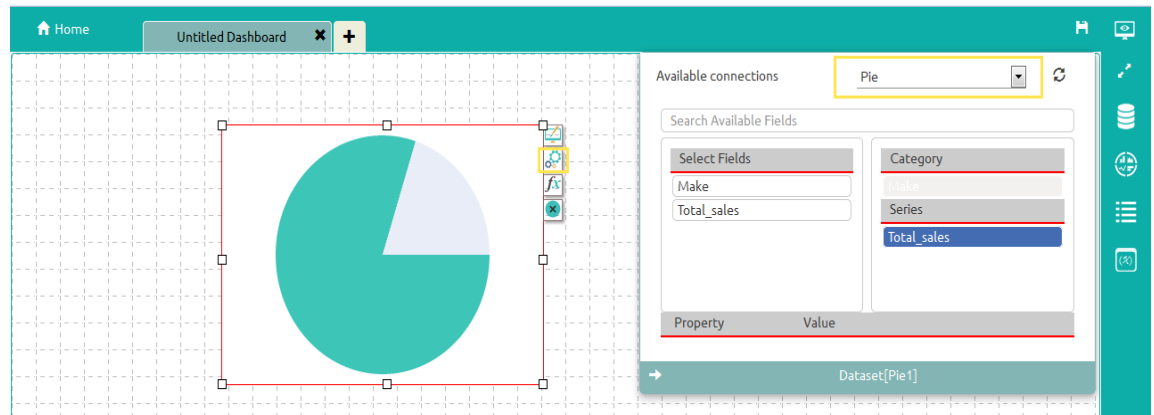
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v) Connecting the Pie chart to an existing data connection

- Click on the settings icon that appears next to the chart, as shown below (in the yellow box).
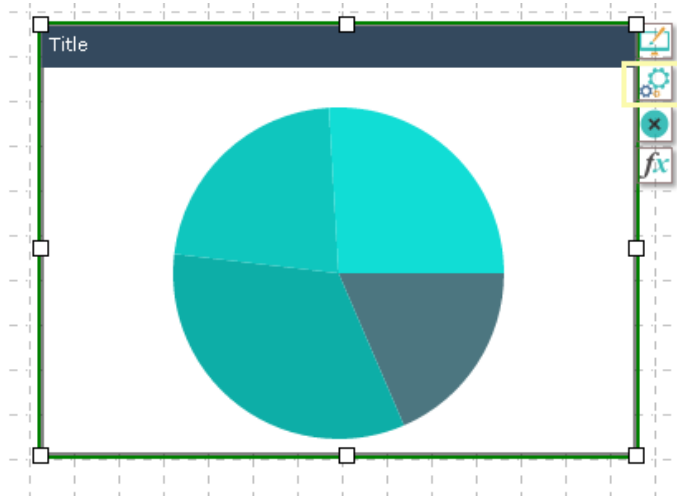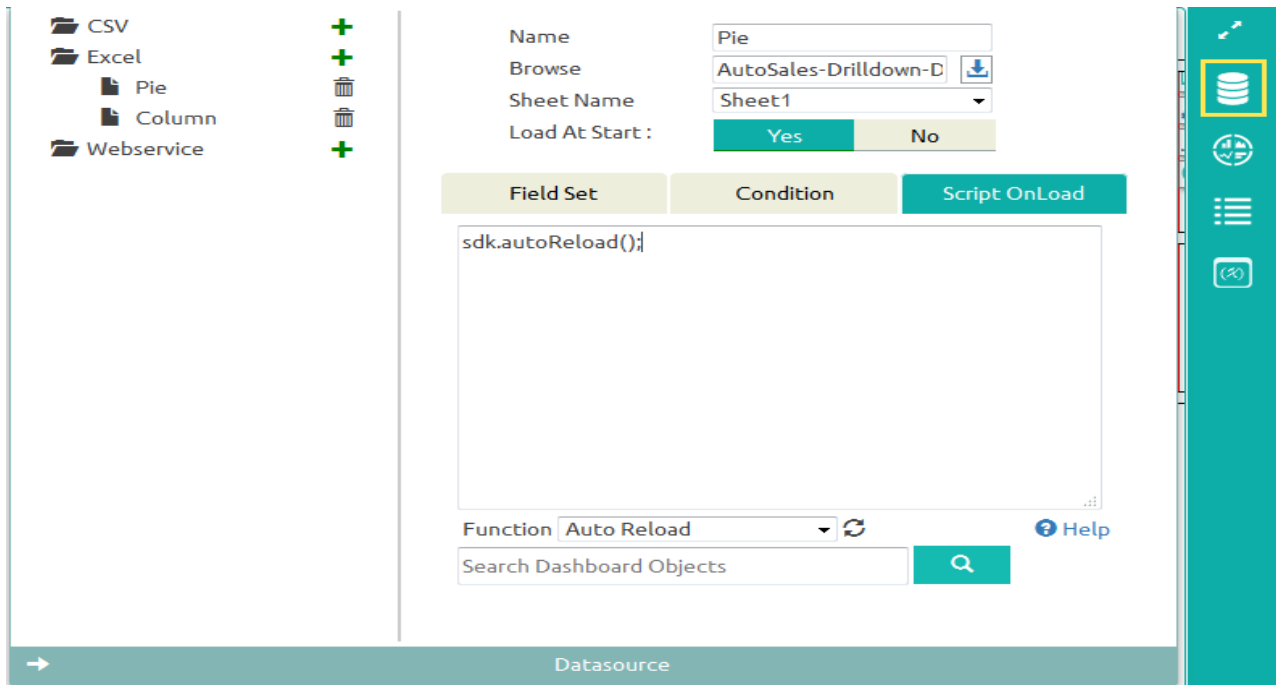

- Select a connection from the **'Available Connections'** dropdown (Ex: **Pie**)
- Drag and drop the fields to their respective series and categories.

b) Enabling Drilldown

Click the **'Data source'** icon provided to the right of the canvas. Select the 'Column' data source (located under the **'Excel'** data source).


Steps to follow:

- Select the **'Script On Load'** button, and select the **'Auto Reload'** function.

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- Select the **'Condition'** button, and in the 'Search Available Conditions' box, type the field name on which the filtering will be performed (in this example, we will use the **'Make'** field for drilling down).
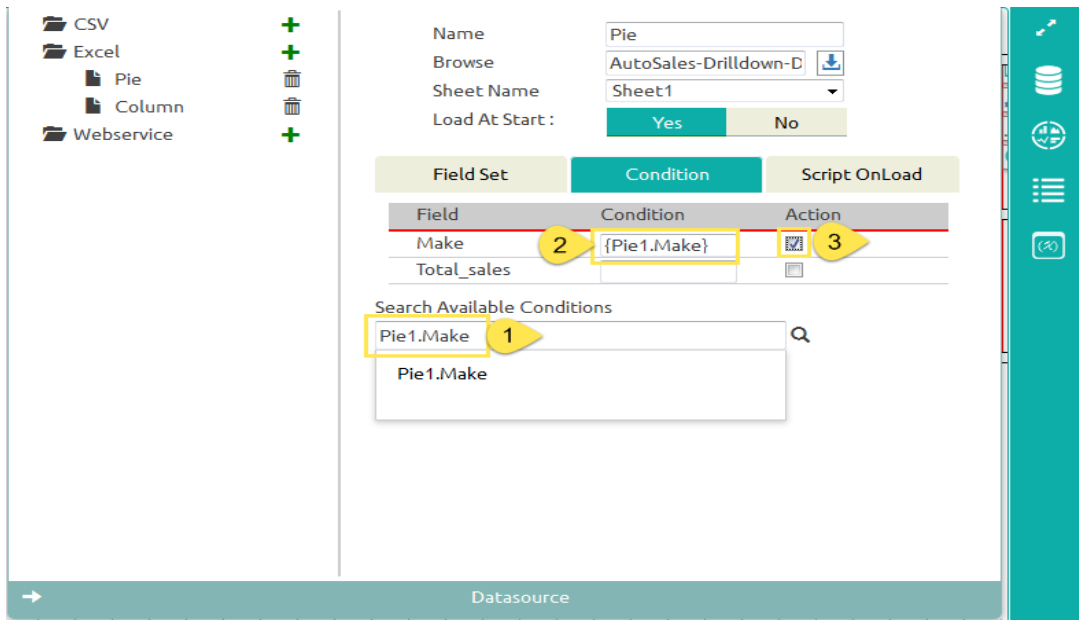
- Copy the condition and paste it under the **'Condition'** tab and enable the **'Action'** checkbox (as shown in the above).

- Click on the 'Preview' button to perform a drilldown operation.
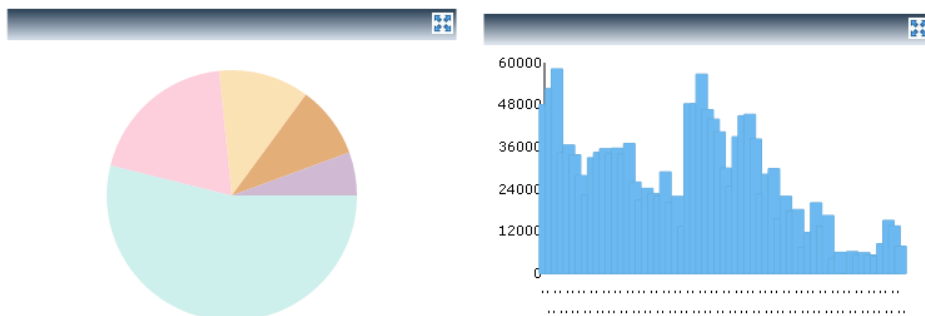
6. Features and Sharing Options

BizViz has scripting functionality, which can be used to customize dashboards. Even complex dashboards can easily be created with scripting. Users need to have basic scripting knowledge to utilize this functionality.

6.1. Scripting Window

In this tutorial, we will provide a basic understanding of writing scripts and their functionality.

Scenario: We wish to have a check box which, when enabled, will show a column chart, and when disabled, will show an area chart. This concept is called 'Dynamic Visibility'.

i)   Select **'Dashboard'** to create a new dashboard
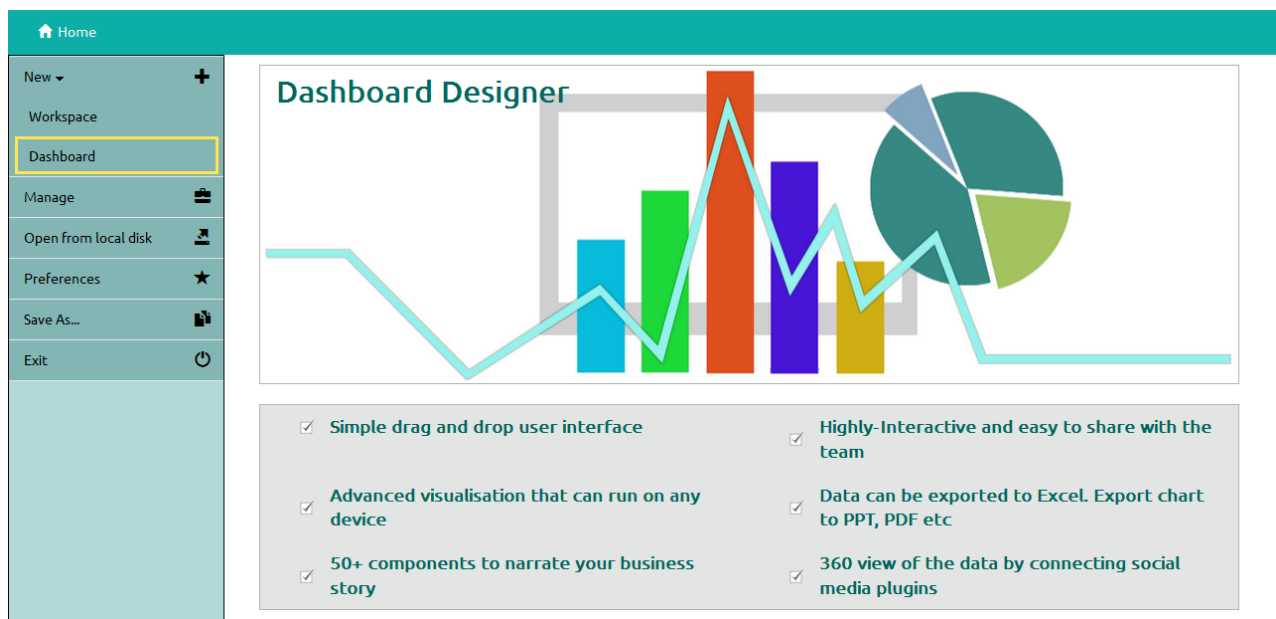
ii)   After selecting **'Dashboard'**, a web page will open.

iii)   Click on the Charts icon and drag and drop the 'Check Box', 'Column Chart', and 'Area Chart' components into the canvas.
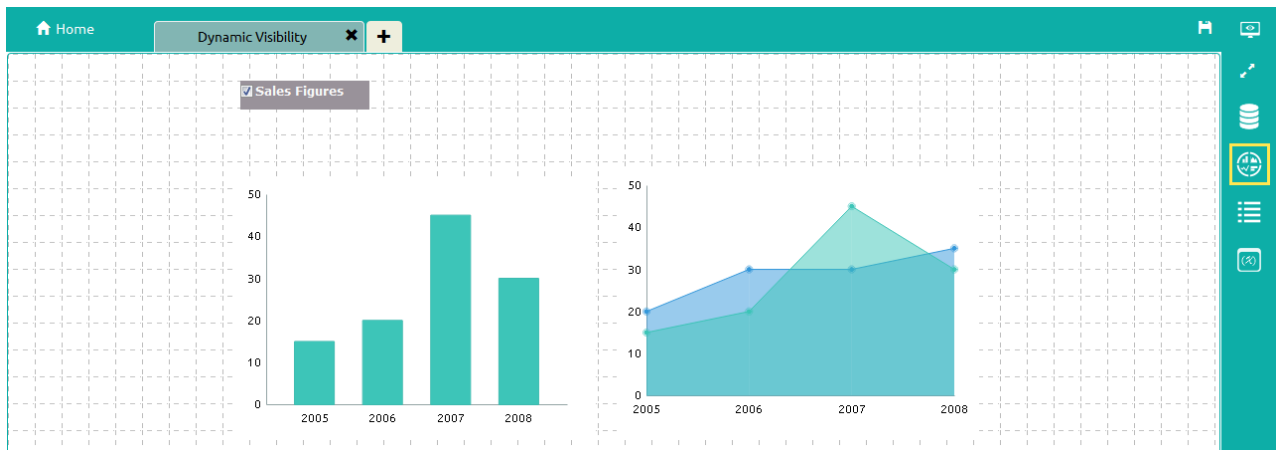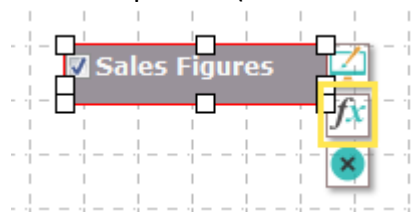
iv)   Click on the '**Appearance**' icon next to the label component (shown below in the yellow box) and set **Checked Value to '0'** and **Unchecked Value to '1'** (as shown below).


v)   Create data connections for the Column chart and Area chart.

(**Ref Creating Data Source Connection for Charts**)

vi)   Click on the **'Script-on-change'** icon which is provided next to the label component (as shown below).
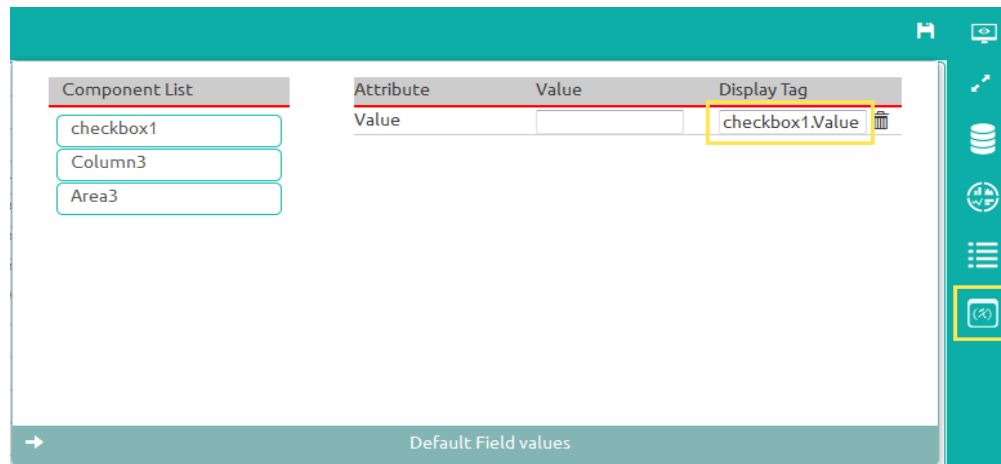

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vii)   After clicking on the '⨏' icon, a **'Change Script'** window will be displayed where the user needs to write a script by using the functions provided in the dropdown menu.
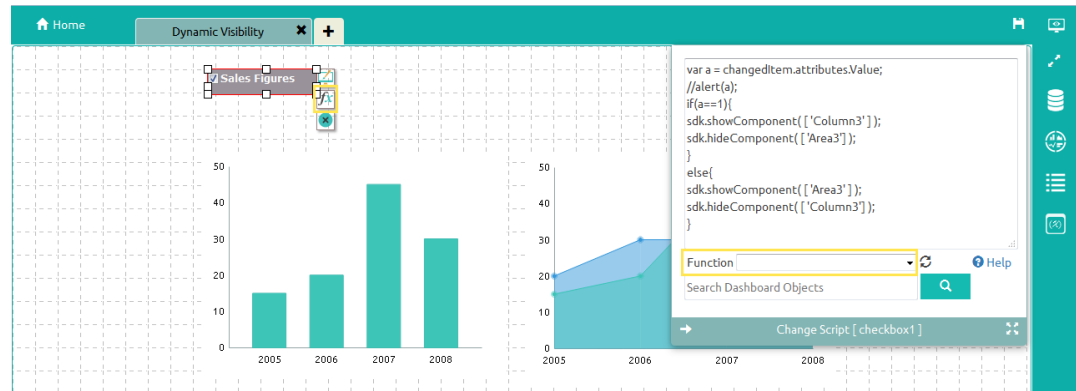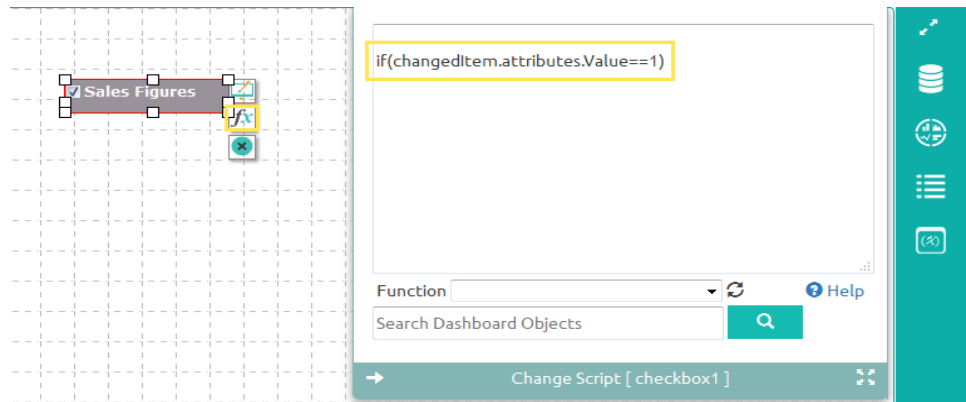

- First, pass the 'Combo Box' value to the script 'if' function.
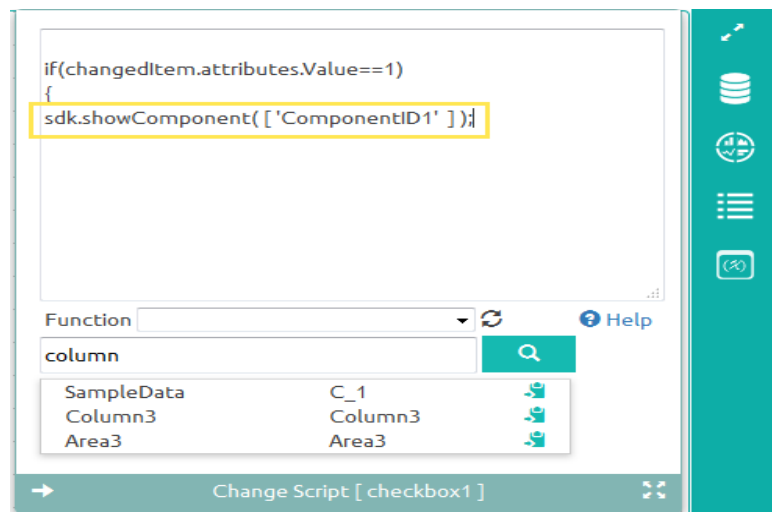
    To accomplish this, click on the 'Component Attributes' icon on the right edge of the screen, and copy the 'Display Tag' value as shown below.

- We will now pass the 'Display Tag' value to the 'if' function of the 'Check Box' Change Script window (as shown below).

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- We will now select the 'Show and Hide' function from the 'Function' dropdown menu
- If the 'Value == 1' (in other words, if the check box is enabled) the Column chart should be displayed. For this to occur, we need to place the 'Show Component' function under the 'if' function, as shown below.


- We now need to pass the 'Column chart' value to the 'show Component' function which we have placed under the 'if' statement, as shown in above.

  To accomplish this, the user has to search for the Column chart in the Search box provided and select the 'PasteID' icon for the Column chart (as shown below).
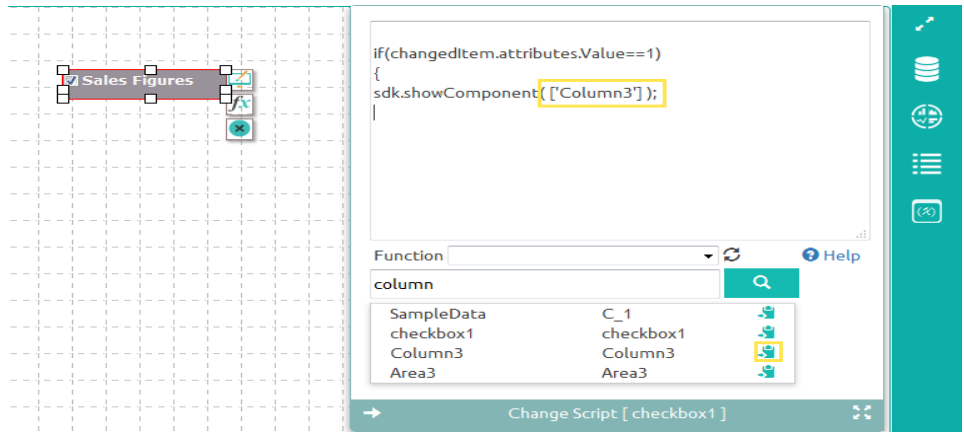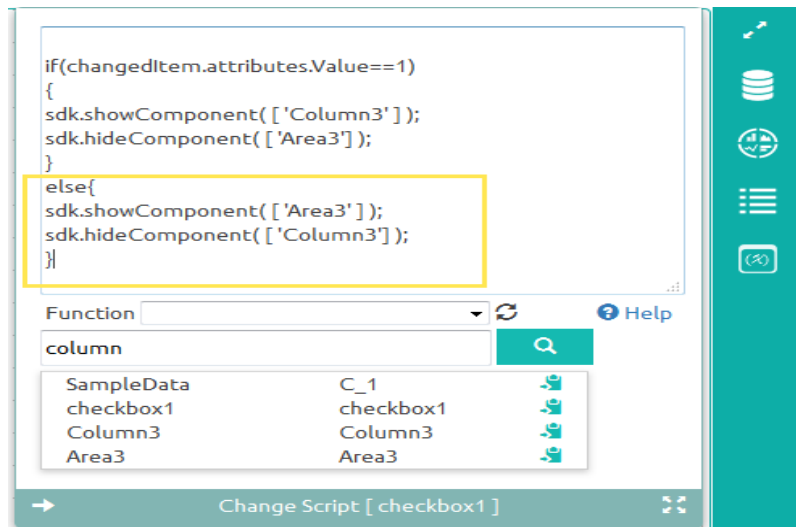
- Now when the Column chart is passed to the 'Show Component' function, we need to make sure that area chart is hidden. To do this, we will pass the area chart value to the 'Hide Component' function, as shown below (similar to what we did for the Column chart).
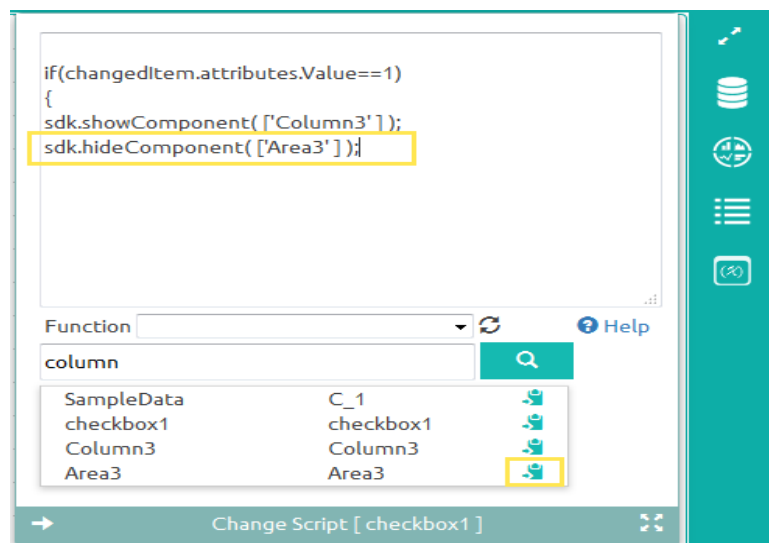
- If the 'Value == 0' (in other words, if the check box is disabled), we need do the reverse of the function we used earlier; So that when the user unchecks the Check Box, the 'Area chart' will be displayed and 'Column chart' will be hidden.

  To accomplish this, we need to write the following script:

```
if(changedItem.attributes.Value==1)
{
sdk.showComponent( [ 'Column3' ] );
sdk.hideComponent( [ 'Area3' ] );
}
else{
sdk.showComponent( [ 'Area3' ] );
sdk.hideComponent( [ 'Column3' ] );
}
```
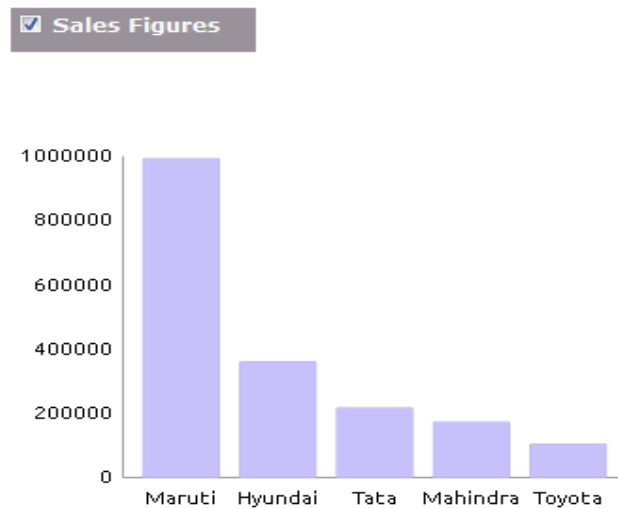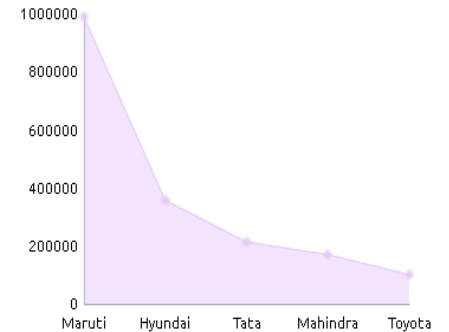
Function   ⟳   ❓ Help

column   🔍

SampleData   C_1
checkbox1   checkbox1
Column3   Column3
Area3   Area3

→   Change Script [checkbox1]   ⤢

- After entering the above script successfully, click on the 'Preview' icon to view the results.
- In the below screen capture, since the 'Check Box' is checked, the 'Column Chart' is displayed.

- Unchecking the 'Check Box' will cause the 'Area Chart' to be displayed.

7. Manage and Sharing Options

Manage and share your work with others. In this tutorial we will explain how to edit, save, and share/publish dashboards.

- **Manage Dashboards**

  Generally, created dashboards are saved under a 'workspace'. In this tutorial we will explain you how to edit, open, and save dashboards.

- **Share Dashboards**

  Users can share their dashboards with others.

Click on the **'Manage'** button, as shown in the figure below. All Workspaces created by the user will be displayed. Clicking on a workspace will display all the dashboards are within that workspace.
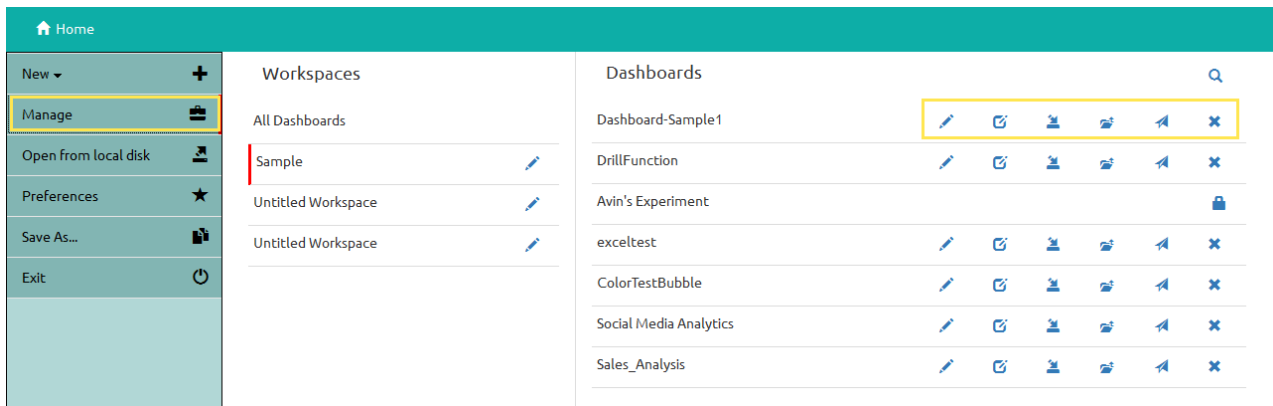
In the above image, you can see that each dashboard has several icons associated with it.

This table will explain the functionality of each icon:

| Icon	Name	Functionality
✏	Edit	Rename a dashboard
☑	Open	Opens a dashboard
⬆	Save to local disk	Save a dashboard to your local system
📂	Move	Move a dashboard to a different workspace
➤	Publish	Publish the dashboard to the portal.
✖	Delete	Delete the dashboard.

7.1. Editing Dashboard

Dashboards can be renamed using edit option. In this tutorial will describe how to edit (rename) a dashboard.

1) From the dashboard designer home screen, click on the **'Manage'** button. All 'Workspaces' will be displayed. Clicking on any workspace will display all the dashboards it contains.

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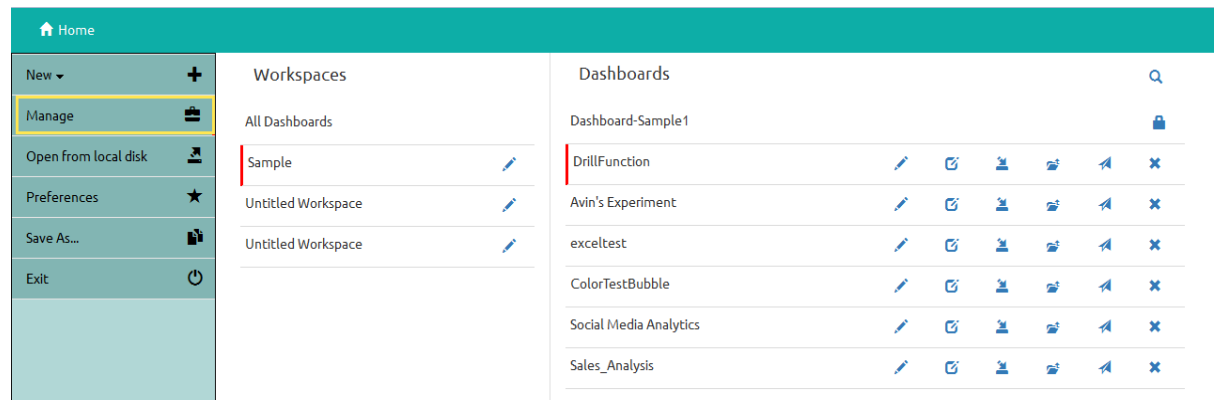
2) On clicking the edit icon ✏, a pop-up window will appear where user will be allowed to rename the dashboard.
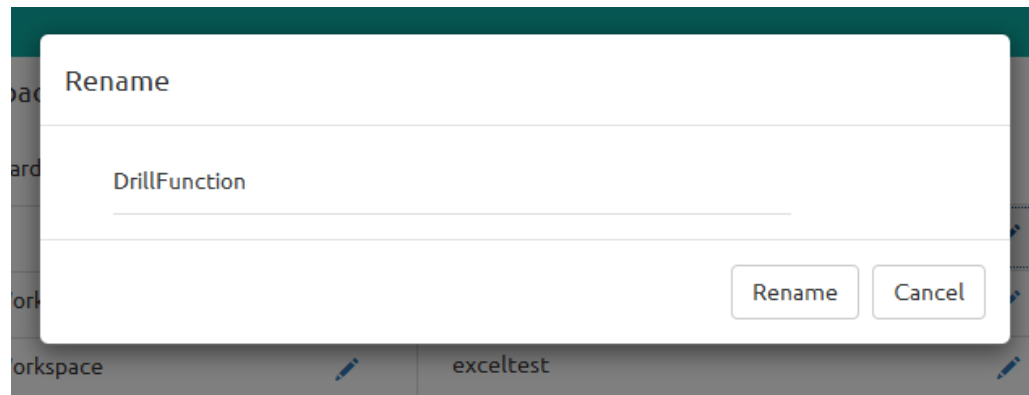
3) After entering the desired name, click the **'Rename'** button to change the existing name of the dashboard.

7.2. Opening a Dashboard

Dashboards can be opened using the 'Open' icon. In this tutorial, we will explain how to open dashboards that are located on the local disk.

1) From the dashboard designer home screen, click on the **'Manage'** button. All 'Workspaces' will be displayed. Clicking on any workspace will display all the dashboards it contains.
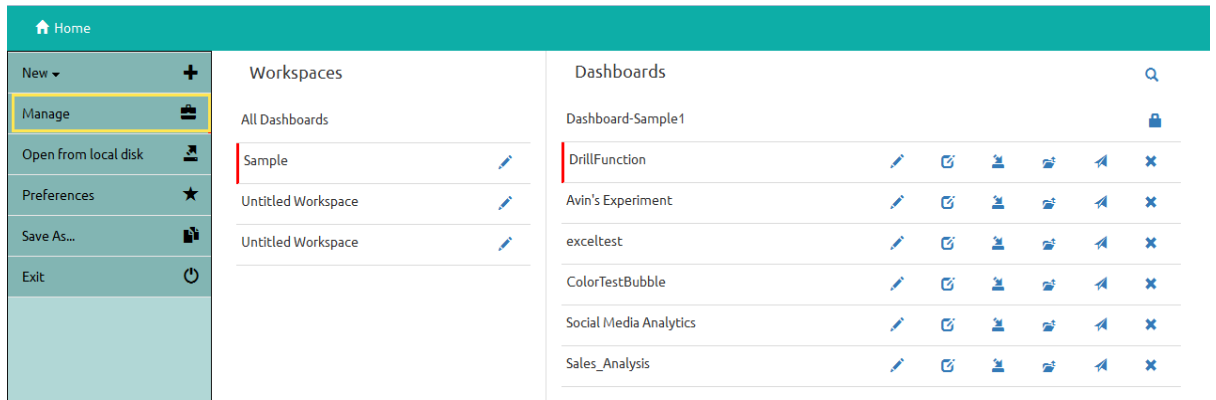
2) On clicking the Open icon ⬚ , that dashboard will open (as shown below).
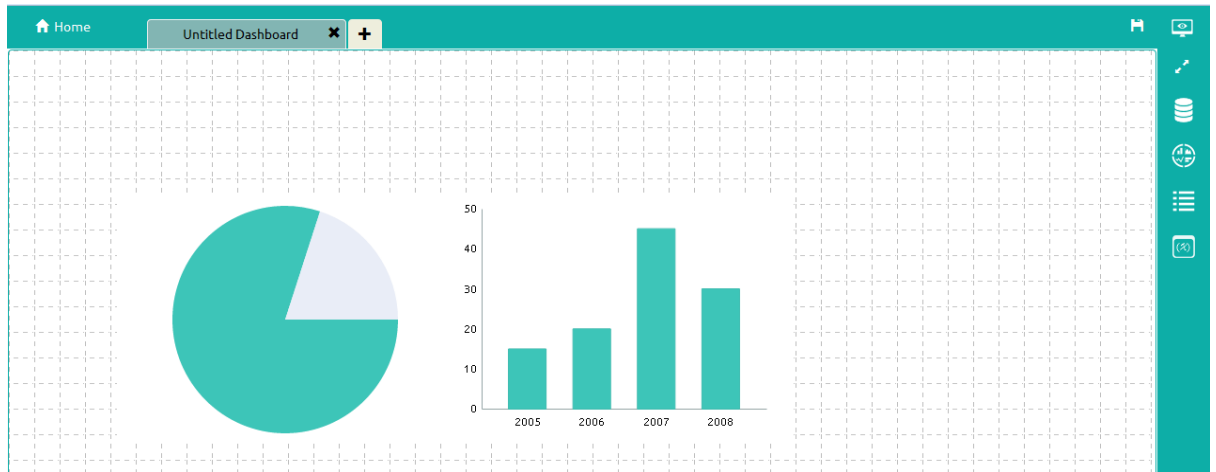
7.3. Saving to Local Disk

Dashboard which have been created by the user can be saved to a local disk by using the **'Save to Local Disk'** option.

1) From the dashboard designer home screen, click on the **'Manage'** button. All 'Workspaces' will be displayed. Clicking on any workspace will display all the dashboards it contains.
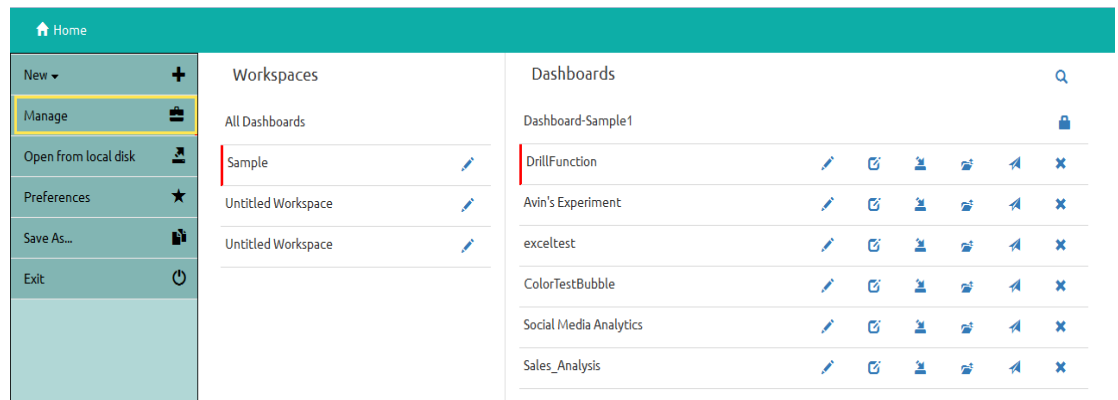
2) On clicking the 'Save to Local Disk' icon ![icon] , a pop-up window will appear (as shown below). Click on the 'Save' option to save the dashboard to your local system.
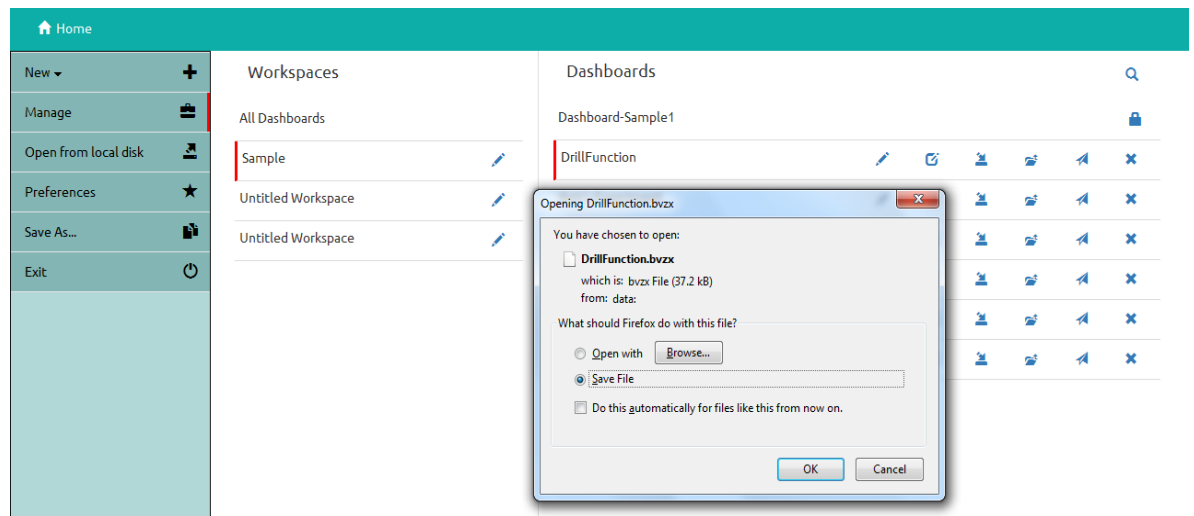

7.4. Moving a Dashboard

Dashboards can be moved from one workspace to another using this option. In this tutorial, we will cover how to move a dashboard.

1) From the dashboard designer home screen, click on the **'Manage'** button. All 'Workspaces' will be displayed. Clicking on any workspace will display all the dashboards it contains.
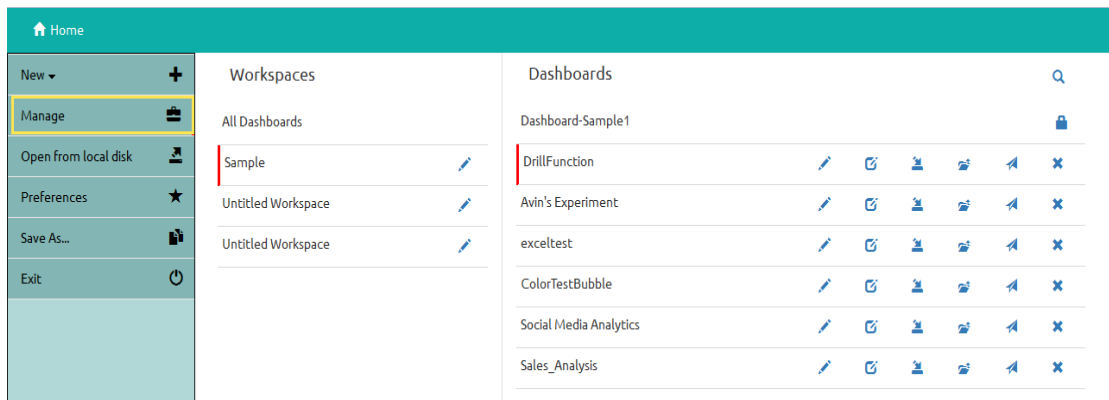
3) On clicking the 'Move' icon , a pop-up window will appear (as shown below). From the dropdown menu, select the Workspace to which you would like to move the dashboard and then click on **'Move'.**
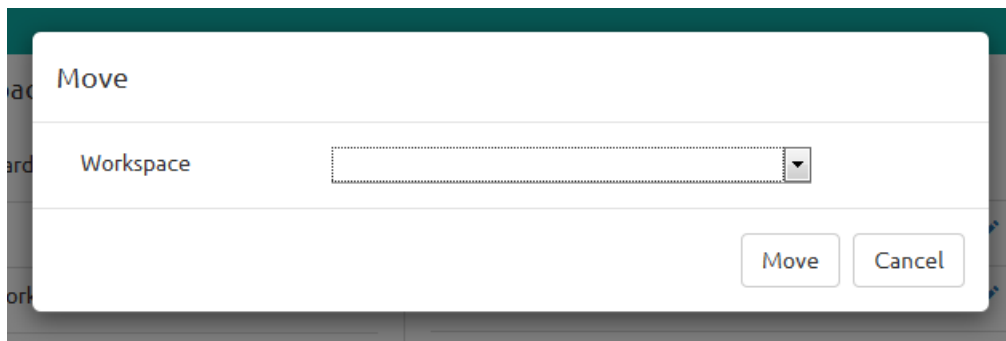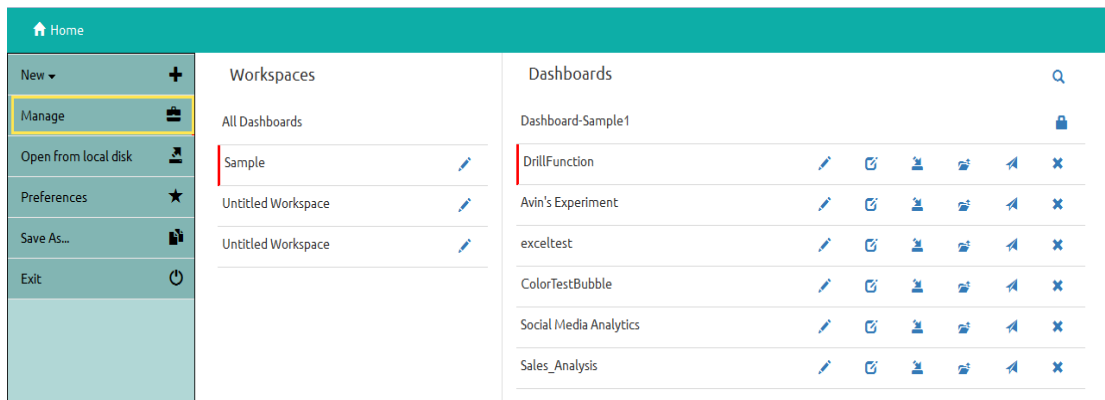

7.5. Publishing Dashboard

Dashboards need to be published in order for end-users to access them.

In this tutorial we will explain how to publish dashboards.

i) On the Dashboard Designer home screen, click on the **'Manage'** button. All existing 'Workspaces' will be displayed. Click on any workspace to view the dashboards it contains.
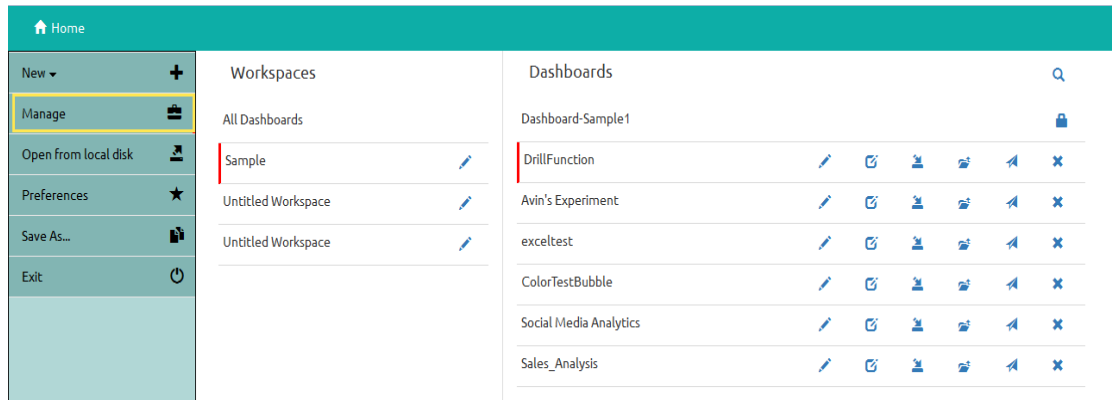
ii) On clicking the **'Publish'** icon _____ , a pop-up window will appear (as shown below). From the Location dropdown menu, select the location to which you would like to publish the dashboard, and click on **'Publish'**.
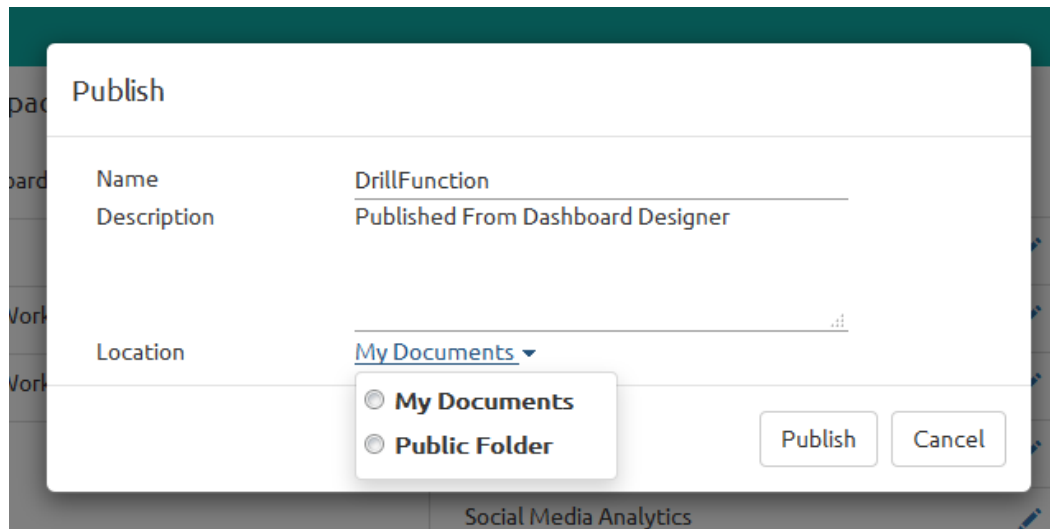
7.6. Deleting a Dashboard

In this section, we will cover how to delete a dashboard.

i) From the dashboard designer home screen, click on the **'Manage'** button. All 'Workspaces' will be displayed. Clicking on any workspace will display all the dashboards it contains.

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ii)   On clicking the **'Delete'** icon   , a pop-up window will appear (as shown below). Click the **'Remove'** button to **delete** the dashboard.

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