DATA DISCOVERY – HOW TO BUILD INTERACTIVE DOSSIERS FOR DATA DISCOVERY
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INTRODUCTION

You are the Vice President of Sales for a leading enterprise software firm. Last year, your company made a significant investment in Salesforce.com. Unfortunately, you have found the reporting capabilities insufficient and are actively looking for a better way to drive weekly pipeline meetings with your sales team. You are interested in tracking deals as they move through the pipeline and exploring revenue forecasts. You would also like to be able to track the performance of individual salespeople against their assigned goals. This workshop will walk you through the steps of building an interactive dossier that delivers these business requirements.

Due to the complexities associated with hosting an interactive workshop, we are not going to attempt a live connection to Salesforce.com. Instead, we are going to simulate a connection to three tables in a Salesforce.com environment using Excel: The Account, Opportunity, and User tables.

GETTING STARTED

To complete this workshop, you will need access to the following supporting files which will be provided by the workshop facilitator:

- Account.xlsx
- Opportunity.xlsx
- User.xlsx
- Credentials_dossier.docx
- env-79172.mstrc

The excel files are datasets, the Credentials_dossier.docx contains credentials to the web server environment your dossier will be published to and the .mstrc will be used to upload the dossier to a server and interact with it from MicroStrategy Library.

First, we will launch MicroStrategy Desktop by double-clicking the MicroStrategy Desktop icon:

1. Click on the New Dossier button on the left-hand side of the interface, or select New Dossier from the File menu to bring up the dossier interface.

You will now enter the brand-new dossier authoring interface. Before we get started building a dossier, let’s briefly familiarize ourselves with the interface.
1. **Toolbar**: Provides controls to redo or undo an action, refresh the dossier, add dossier elements (including datasets, pages, chapters, visualizations, on-canvas filters, text, images, and links), change the format, and share your dossier. This is also where you can take advantage of brand-new responsive design functionality and preview your dossier in mobile and presentation mode.

2. **Panel Control**: The icons on the far left-hand side of the interface are used to show or hide different panels.

3. **Contents Panel**: With dossiers, you can organize your information into a chapter and page structure, allowing you to tell a story about your data. The Contents Panel is where you can add chapters and pages to your dossier. Click on the editor icon in the Panel Control section to show or hide this panel.

4. **Dataset Panel**: The Dataset Panel shows the names and the elements of the datasets you have imported for your dossier. You can add additional datasets, delete datasets, and link two different datasets here. You can also add new metrics, attributes, links, etc. by right-clicking on the data elements in the panel. To show or hide this panel, click on the dataset icon in the Panel Control section.

5. **Editor, Filter, and Formatting** Panels
   a. **Editor Panel**: This is where you can drag and drop attributes and metrics to add data to your dossier. Click on the editor icon in the Panel Control section to show or hide this panel.
   b. **Filter Panel**: This is where you can add filters to your dossier at the chapter level, and filter data based on the values of any attribute or metric to change your view in order to better understand your data. Simple checkboxes, sliders, calendars, and radio buttons make filters easy to use, and the impact of your selections is instantly visible. MicroStrategy also supports using visualizations as a filter. Click on the filter icon in the Panel Control section to show or hide this panel.
c. **Format Panel:** With dossiers, you can apply formatting options to enhance a user’s ability to view and read the information in your visualizations. Formatting options vary depending on the type of visualization you are working with. Click on the format icon in the Panel Control section to show or hide this panel.

6. **Visualization Gallery:** Use the Visualization Gallery to quickly select the visualization you want to use to display your data, or import a custom visualization with just a few clicks. Click on the visualization icon in the Panel Control section to show or hide this panel.

**EXERCISE 1: DATA IMPORT AND WRANGLING**

In this exercise, you will create a dossier and use data wrangling to prepare your data.

**Overview**

In this exercise, you will import three datasets, `Account.xlsx`, `Opportunity.xlsx`, and `User.xlsx`, into MicroStrategy Desktop. You will then create a dossier based on this data.

After you have imported the three datasets, you will use the data wrangling functionality to prepare the data in the `Opportunity.xlsx` dataset to conform to the following:

Because you are using this data to drive your pipeline review meeting, you are only interested in data from the current year, 2017, and you want to filter out the rest of the data. There are some discrepancies in the way the data for Region is currently represented. Your firm recently went through a reorganization, and now the regions should be represented as East and West. However, some of the rows have region as Northeast and some as Southeast. So, you want to make sure that these regions are correctly categorized as East. Due to the way Salesforce.com names its primary keys, some columns in the datasets are named differently across the different tables. You will need to correct this by renaming `AccountExec ID` to `AcctExec ID` in order to properly relate the data.

Save your dossier as **Introduction to Dossier** in your My Documents folder on your computer.

You are free to complete Exercise 1 on your own, or you can use the detailed steps that follow. If completing on your own, continue to Exercise 2 after saving your dossier.

**Detailed Instructions: Import the Datasets**

1. From the menu bar, click on the Add Data icon in the tool bar, and select New Data to open the Connect to Your Data interface.
2. For this example, you will import data from an Excel file, so select the **File from Disk** option.

![Data Sources](image)

**TIP:** With MicroStrategy you can instantly connect to nearly any data source, from traditional Excel spreadsheets, to cloud-based applications, big data sources, and even social media sources like Facebook and Twitter. MicroStrategy offers over 80+ data import options for even easier analysis.

3. After selecting your data source, click **Choose Files** to browse your local machine and import a spreadsheet.

![Choose Files](image)

4. Browse to the **Account.xlsx**, **Opportunity.xlsx**, and **User.xlsx** files, use CTRL+Click (Command on Mac) to multi-select them, and then click **Open**.

These files should be in the supporting files folder provided to you before this session.
TIP: MicroStrategy allows users to import multiple sheets at the same time. This allows for easy uploading of entire Excel worksheets, without requiring you to delete sheets that aren’t used for your dossier. Each sheet will automatically be treated as a different table within the dataset, allowing you to create joins between tables.

5. Ensure that you have the `Account.xlsx`, `Opportunity.xlsx`, and `User.xlsx` workbooks selected, and click on the Prepare Data button.

After the data loads, you will be taken to the Preview window, which contains information about the attributes and metrics included in the different datasets.

6. In order to display the actual columns in the dataset, click on the Opportunity table in the Preview screen.

7. Click on the Expand Preview arrow adjacent to “Opportunity.xlsx” to expand the Preview window.

Now you can see the full attribute and metric columns.
NOTE: The Preview window shows data for the first 50 rows in the selected dataset. It is designed to give you a general idea of the type of data contained within a specific dataset.

TIP: MicroStrategy automatically maps the imported rows and columns as attributes and metrics. Attributes provide a business model with context for reporting and analysis. Metrics represent business measures and key performance indicators (KPIs). If changes to any content or data types of the attributes or metrics are needed, they can be performed manually in the Preview window. Note that each attribute and metric is clearly marked. Attributes are represented by a blue icon, while metrics are represented by an orange icon.

Wrangle Your Data

Often, imported datasets contain errors, missing records, or incorrect formatting that can make analysis difficult. Rather than searching through each record in Excel and making individual modifications, we can make changes directly within MicroStrategy by using the Data Wrangling tool.

8. Ensure that you have the Opportunity table selected in the Preview screen, and then select Wrangle… to open the Wrangle Your Data interface.

9. Because you are using this data to drive your pipeline review meeting, you are only interested in data from the current year (2017). You can filter the dataset within the Data Wrangling interface using the Timeline Selector. Click on the Close Date column, and in the top dropdown menu called Select Function, select the Timeline Selector.
You will notice that a Timeline Selector window appears below the data. This timeline shows the frequency of opportunities (number of rows) that fall within a specified date range. The range starts from 2015 and ends in 2017, as denoted by the numbers underneath the graph.

**NOTE:** The Timeline Selector mimics the date format from the date data. In this dataset, the date attribute is in a YYYY/MM/DD format, so 20150109 represents January 9th, 2015.

10. Pull the left and right sliders inward to include only dates in the 2017 range — your **Timeline Selector** should look like the one below.

You will notice the graph above dynamically changes based on the range of dates you select. For this example, your dates should read **20170108** and **20170727**.

11. After you select the correct range, click on the arrow next to “Reset” in the **Timeline Selector** — choose **[Delete Row not included in selectors]** to filter the data to include only 2017.
NOTE: After you delete the records not included in 2017, your dataset shrinks a significant amount. Ensure that you now have 71 rows of data.

If you look through your data in the data wrangling interface, you can see that there are differences within the Region column. Some rows have Northeast, some have Southeast, while others just show East. This is caused by the fact that your firm recently went through a reorganization, but not all the data has been updated in Salesforce.com. We will use the Text Selector to cluster these records into the correct regions.

12. Click on the down arrow associated with the Region column, and select the Text Selector option.

14. Erase the selected text, replace it with the word “East”, and click Apply to All—repeat this step to change the Southeast values to East as well.
The number of rows for East should now show 23 records.

If you make several changes to a dataset in the data wrangling interface and would like to save the steps for use at a later time, you can export the History Script. To export a History Script, click the Export down-arrow icon in the top right of the Wrangle Your Data window.

You can either copy your history script onto your clipboard, or save it as a .txt file in a specified location on your computer. This is an optional step for this workshop.

15. Click Apply in the bottom right of the Wrangle Your Data interface to return to the Preview window.

**TIP:** Because the data wrangling tool stores every action in a script, you can revert any of your changes. To do this, look at the History Script window in the top-right of the Data Wrangling interface. You can select individual changes to revert using the undo/redo buttons, revert the entire dataset, or simply change the last action you performed.

Prepare your Data

Although you imported all three spreadsheets from Salesforce.com, they won’t necessarily have the relationships needed to do a complete analysis. Due to the way Salesforce.com names its primary keys, you will find that some columns in the datasets are named differently across the different tables. Our next task will be to correct this by setting up the proper relationships within the data.

16. With the Opportunity table selected, double-click on the AccountExec ID column header in the Preview screen, and rename it AcctExec ID.
17. Press enter on your keyboard, and you will be prompted with a notification.
18. Since there is another attribute in the User table called AcctExec ID, MicroStrategy automatically recognizes that the attribute may be the same across both tables—click on Map? to map the AcctExec ID attribute to the other table.

![Map? button](image)

**TIP:** After MicroStrategy maps attributes a small link icon (*** ) appears next to them. It indicates that they are essentially the same attributes across different tables.

19. Click **Finish** to exit the **Preview** window.

![Preview window](image)

20. Click the **Save** button on the toolbar.

![Save button](image)

21. **Save** your dossier as **Introduction to Dossier** in your My Document folder. This file is now a shareable MicroStrategy file (.mstr extension).

**TIP:** When you save your dossier as a MicroStrategy (.mstr) file, the entire dossier, including visualizations, filters, images, and datasets, is exported. You can share this file with other MicroStrategy users, who can import it into their own MicroStrategy environment to review, modify, or create new visualizations based on the data you share with them. Feel free to save your dossier at any point using the **Save** button.
MicroStrategy has two different views for displaying the attributes and metrics within a dataset. The Flat View displays all the attributes and metrics at one time. The Table View breaks the display down by each imported table. The view you choose is up to user preference. For this lesson, we will choose to display the datasets in Table View.

22. Select the ellipses icon adjacent to the word **Datasets** in the Datasets Panel, and choose **Table View**.

---

**EXERCISE 2: STRUCTURE YOUR STORY**

Create a **Table of Contents**.

**Overview**

Now that you have imported your data, you are ready to put together a compelling story for your meeting.

Dossiers allow you to build a modern and interactive analytical book of your business. Each dossier consists of individual pages arranged in easy-to-navigate chapters. On each page, you can tell compelling stories about your data with powerful visualizations such as graphs and maps. To provide a guided experience for end users, dossiers include a **Table of Contents** that help you logically organize content into chapters and pages.

Create a **Table of Contents** with the following structure:

1) The first chapter should be called **Sales Pipeline Overview**. It should have a single page labelled **Overview**.

2) The second chapter should be called **Detailed Analysis**. It should have two pages, the first page called **Pipeline Details**, and the second page called **Pipeline by Sales Executives**.
When finished the **Table of Contents** will look like the following:

![Table of Contents]

You can complete Exercise 2 on your own, or use the detailed steps that follow. If completing on your own, continue to Exercise 3 after saving your dossier.

**Detailed Instructions: Create a Table of Contents**

23. Right-click on **Chapter 1** in the **Table of Contents**, and rename it to **Sales Pipeline Overview**.
24. Similarly, right-click on **Page 1**, and rename it **Overview** – you want the first page of your dossier to show key performance indicators.

25. Click on the add chapter icon on the toolbar to insert a new chapter into your dossier – notice that adding a new chapter also adds a page in that chapter.

26. Right-click on the newly added chapter, and rename it **Detailed Analysis**.

27. Click on the add new page icon in the toolbar to add a new page under the **Detailed Analysis** chapter.
28. Right-click on Page 1, and rename it Pipeline Details.
29. Similarly, right-click on Page 2, and rename it Pipeline by Sales Executives.

Your Table of Contents should now look like the one below:

EXERCISE 3: VISUALIZE YOUR DATA

Add KPI And Bar Graph Visualizations to Your Dossiers.

Overview

In the Sales Pipeline Overview chapter on the Overview page, we want to display the total Deal Value that was won and lost in 2017.

Add in two KPI visualizations based on the Deal Value metric. Add a filter for each visualization that uses the Sales Lifecycle attribute to filter each visualization appropriately. Format each KPI visualization to distinguish them from one another.

Add a third visualization, a bar graph, below the two KPIs. Use the Sales Life Cycle attribute in the horizontal axis, Deal Value in the vertical axis and Revenue Type in the color by drop zone.

Update the title of this visualization to Deal Value by Sales Life Cycle.

The visualizations should be positioned as follows:

<table>
<thead>
<tr>
<th>Visualization 1</th>
<th>Visualization 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visualization 3</td>
<td></td>
</tr>
</tbody>
</table>

Your completed Overview page may look like the following:
You can complete Exercise 3 on your own, or use the detailed steps that follow. If completing on your own, continue to Exercise 4 after saving your dossier.

**Detailed Instructions: visualize your data**

30. From the Table of Content, click the Overview page. At this point, it only contains the default grid visualization.
31. Insert a KPI visualization from the Visualization Gallery on the right.

32. Drag the Deal Value metric into the drop zone.

MicroStrategy automatically aggregates the metric and displays the sum of all the deals in the pipeline. However, for your analysis, you want to narrow this down to display the total value of all deals won in 2017.

MicroStrategy allows you to quickly narrow down the data included in a visualization to only the data that you would like to display.

33. Click on the ellipses icon on the title bar for the visualization, and choose Edit Filter—this will open the Advanced Filter Editor.

34. Click on Add New Qualification, and on the next screen, choose Sales Life Cycle from the Based On drop down.
35. Ensure that the In List radio button is selected, and click on the checkbox next to 6. Won.

Essentially, what you are doing is narrowing the data displayed in this KPI visualization down to deal values where Sales Life Cycle attribute equals Won, or in other words, you are only displaying the total of Deal Value for all the deals that were won.
36. After clicking **OK**, and then **Save**, your KPI visualization should look like the one below:

![Image of KPI visualization showing $11,275,500](image)

37. You also want to show a similar KPI for all the deals that were lost — to do that, insert a new visualization by clicking on the **Insert Visualization** icon in the toolbar.

![Image of Insert Visualization icon](image)

38. Repeat steps 34 to 36 to add a new KPI visualization, however this time in the **New Qualification** window, you should choose the deals that were **Lost**.

At the end, your page should look like the one below. The visualization on the left displays the total value of deals won, and that to the right displays the total value of the deals that were lost.

![Image of KPI visualizations showing $11,275,500 and $2,145,000](image)

Before adding further information to your **Overview** page, you want to format the two KPI visualizations so they are visually differentiated from one another - so other users can identify which visualization shows which information.

39. Select the visualization on the left (**Total Deals Won**), and click on the **Format Panel** icon to open it.
40. Uncheck the **Show titlebar** checkbox, and select **lime** in the **Container fill color** option.

Now would be a good time to **save** your work.

41. Now choose **KPI settings** from the top dropdown list and change **Display Text** to **Total Won** and the **KPI Name** color to **black**

42. Repeat steps 40-42 for the visualization on the right, but this time make sure the **Container fill color** is set to **Light Orange**, **Display Text** is set to **Total Lost**, and the **KPI Name** color is set to **Black**.
After you have made your changes, the visualizations should look like the following:

As the VP of Sales for an enterprise software company, you oversee three primary offerings: software, maintenance, and training services. In addition to the key performance indicators on deals won and lost, you also want to add a visualization that will help you see the blend of deals by product type and by the sales lifecycle. To do this, we will add another visualization to the Overview page.

43. Insert a new visualization.

44. Click on the bar graph from the Visualization Gallery, the new visualization will be added to the right of the Total Lost KPI visualization by default.

45. Double-click on the title bar of the new visualization, and update the title to Deal Value by Sales Life Cycle.

46. Add the Sales Life Cycle attribute to the horizontal axis, Deal Value to the vertical axis and Revenue Type to the color by drop zone.
47. Drag the new visualization by its title bar, and place it under the two KPI visualizations (a thin blue line will indicate where the visualization will be placed). Your Overview page should now look similar to the one below:

EXERCISE 4: USING A VISUALIZATION TO FILTER OTHER VISUALIZATIONS

Use a Visualization to Filter Both a Grid and Another Visualization

Overview

Within the Detailed Analysis Chapter, on the Pipeline Details page add three visualizations and position them as follows:

<table>
<thead>
<tr>
<th>Visualization 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Visualization 2</td>
<td>Visualization 3</td>
</tr>
</tbody>
</table>

Visualization 1:
Add a stacked bar graph visualization across the top of the screen. Use the Deal Value metric in the Vertical drop zone, Close Date (Month) in the Horizontal drop zone, and Sales Lifecycle in the Color by and Break By drop zones.

Visualization 2:
Add a grid visualization to the bottom-left corner. Add the Client Name and Close Date attributes to the rows and the Deal Value metric to the columns.
Visualization 3:
Add a horizontal bar graph visualization in the bottom-right corner. Use the Revenue Type attribute for the rows and the Deal Value metric for the columns.
Use Visualization 1 as a filter for the other two visualizations. It should target both Visualization 2 and 3.
Finally, rename each visualization to the following:
- Visualization 1 = Sales Pipeline by Stage and Close Month
- Visualization 2 = Pipeline Detail
- Visualization 3 = Pipeline Product Mix

Your final dossier should look like this:

After completing the pipeline details page, move on to the Detailed Analysis Chapter. On the Pipeline by Sales Executive page add two visualizations that are positioned as follows:

Visualization 1

Visualization 2

Visualization 1:
Add a horizontal bar graph visualization across the top of the screen. Drag AccountExec LastName to the Vertical drop zone, Deal Value to the Horizontal drop zone, and Revenue type to the Color by drop zone.

Visualization 2:
Add a grid visualization beneath Visualization 1. Drag ClientName, Description, and Revenue Type to the Rows drop zone, and Deal Value to the Metric drop zone.
Finally, rename each visualization to the following:

**Visualization 1** = Deal Value by Account Executives and Revenue Type

**Visualization 2** = Pipeline Details by Client

Your final dossier should look like this:

![Visualization Example]

You can complete Exercise 4 on your own, or use the detailed steps that follow. If completing on your own, continue to Exercise 5 after saving your dossier.

**Detailed Instructions: Filtering using visualizations**

Since we don’t have higher level attributes such as **Month** in the dataset, we can create them on the fly from the **Close Date** attribute by using the **Create Time Attributes** feature.

48. Right-click on the **Close Date** attribute under the **Opportunity.xlsx** dataset, and select **Create Time Attributes**, then click **Month** and select **OK**.

![Create Time Attributes]

**TIP:** MicroStrategy enables the creation of time attributes on the fly without manually transforming attributes. Notice how the original attribute name still appears on the newly created time attributes to show they have been automatically derived.
49. Click on the **Pipeline Details** page in the **Table of Contents**, and drag the **Sales Life Cycle** attribute from the **Opportunity.xlsx** dataset and the **Close Date (Month)** attribute to the rows drop zone. Your grid should look similar to the one below:

![Pipeline Details Grid](image)

50. Drag the **Deal Value** metric from the **Opportunity.xlsx** dataset to the **Metrics** section.

![Deal Value Metrics](image)

To display your pipeline data in a more visual manner, you are going to convert this regular grid into a stacked bar chart.

51. In the upper-right corner of the visualization, click on the ellipsis that appears when you hover your mouse over the area and select **Change Visualization** and then **Bar Chart**.

![Change Visualization](image)

52. In the **Editor** tab, drag the **Sales Life Cycle** from the vertical section attribute to the **Color By** section (you will notice that elements dropped in the **Color By** section are also added to the break by section).

53. Next, drag the **Close Date (Month)** from the **Break by** section to the Horizontal section.
Your visualization should now look like this:

Now would be a good time to **save** your work.

You now have a graphical representation of your pipeline data, showing opportunities by stage and closed month. This visualization looks nice, but it's not actionable. You need to add more detail to your dossier to help drive your pipeline meeting.

54. Insert a new visualization by clicking on the **Insert Visualization** icon in the toolbar.
55. Move your new blank visualization below your first visualization.

Your canvas should now look like the following:

56. Drag the **Client Name** attribute from the **Account.xlsx** dataset into the rows section of the editor panel.
57. Repeat this process to add the **Close Date** attribute from the **Opportunity.xlsx** dataset to the Rows section of the editor panel, and add the **Deal Value** metric from the **Opportunity.xlsx** dataset to the **Metrics** section of the editor panel.

Your editor panel and grid should now look like this:

![Image of editor panel and grid]

We now have a grid that shows all the detail we need to drive our pipeline meeting, but we need to relate the two visualizations together so we can use the first pipeline graph to filter the second visualization. MicroStrategy allows you to use a visualization as a filter for one or more visualizations within a dossier. Let’s configure the stacked bar chart to act as a filter for the detailed grid.

58. Click on the ellipsis icon on the corner of the **bar graph**, and choose **Select Targets**.

![Image of bar graph with ellipsis icon]

You will be prompted to select which visualization you want to have as a target. If you had more than one visualization on the page, you could select multiple visualizations here.

59. Since there is only one other visualization on the page, select **Visualization 2** by clicking anywhere on the visualization (as soon as you click on it, you will notice that a Target icon appears on the visualization) and then click **Apply**.
Visualization 1 is now set up to filter Visualization 2.

60. Now, click on the bar for the month of April — notice that MicroStrategy automatically filters the records in the detailed grid, showing only items for the selected month.

You also want to bring in details about revenue type so you can see what the product mix is for each month. To do this, you’ll add another visualization.

61. Click the **Insert Visualization** icon from the toolbar.
62. Drag your visualization to the right of your detailed grid visualization and below your bar chart visualization by grabbing the header bar and moving it to the desired location.
63. Add the **Revenue Type** attribute to the Rows section of the editor panel, and then add the **Deal Value** metric to the **Metrics** section of the editor panel.

Your visualization should look similar to the one below:

![Visualization Example](image)

Next, we want to convert this new visualization to a vertical bar chart.

64. With the new visualization still selected, click on the ellipsis icon at the far right of the visualization title bar, then select **Change Visualization**, and choose **Bar Chart**.

![Change Visualization Dialog](image)

65. Since we want a vertical bar chart, we need to swap the axes on this chart, so select the **Swap** icon in the editor panel.

![Swap Icon](image)

66. In order to make the visualization easier to analyze, let’s sort **Deal Value** in descending order—right-click on the **Deal Value** metric in the editor panel, and select **Sort Descending**.
Your dossier should now look similar to the one below:

Since we are interested in analyzing our revenue mix for upcoming deals, we want to have the stacked bar chart visualization drive this visualization.

67. Click on the ellipses in **Visualization 1**, and click on **Select Targets**.

68. Target **Visualization 3** (the bar chart we just created) by clicking anywhere on that visualization and then clicking **Apply**.
NOTE: Visualization 1 (Stacked bar chart) now filters both Visualization 2 (detailed grid) and Visualization 3 (revenue mix bar chart).

Now, let’s rename the three visualizations on this page.

69. Double-click on the Visualization 1 title bar, and rename it Sales Pipeline by Stage and Close Month.

70. Repeat the process for the remaining visualizations, giving them appropriate names:

Visualization 2 = Pipeline Detail

Visualization 3 = Pipeline Product Mix

You have now finalized the content for your Pipeline Details page. However, you also want to include data broken down by sales executive.

71. Select the Pipeline by Sales Executives page in the Table of Contents and the click on the Bar Chart icon in the Visualization Gallery.

72. Drag AccountExec LastName to the Vertical drop zone, Deal Value to the Horizontal drop zone, and Revenue Type to the Color by drop zone.

73. Rename the visualization Deal Value by Account Executives and Revenue Type, and then right-click on the Deal Value (in the drop zone), and click Sort Descending.
Your visualization should now look like the one below:

74. Insert a new visualization, and place it under the bar chart.
75. Drag ClientName, Description, and Revenue Type to the Rows drop zone, and Deal Value to the Metric drop zone.
76. Rename the visualization Pipeline Details by Client.

Your page should now look like this:

Your visualization should now look like the one below:

74. Insert a new visualization, and place it under the bar chart.
75. Drag ClientName, Description, and Revenue Type to the Rows drop zone, and Deal Value to the Metric drop zone.
76. Rename the visualization Pipeline Details by Client.

Your page should now look like this:

Now would be a good time to save your work.

EXERCISE 5: USING A VISUALIZATION ON ONE PAGE TO FILTER A VISUALIZATION ON ANOTHER PAGE

Using a Grid Visualization as a filter for a visualization on another page

Overview
Now you have all the information you need for your meeting. However, you would like to be able to link the two pages in the dossier together so, if during the course of the meeting someone has a question about a deal, you can easily identify the correct Sales Executive to reach out to. With dossiers, authors can easily use a visualization in one page to filter a visualization on a different page.
Create a link between the **Pipeline Detail** grid visualization on the **Pipeline Details** page in the **Detailed Analysis** chapter and the **Deal Value by Account Executives and Revenue Type** bar chart on the **Pipeline by Sales Executive** page. Try to figure out who the Account Executive is for the Robatnics, Inc. deal that’s currently in the Solution Validation sales lifecycle stage.

You can complete Exercise 5 on your own, or use the detailed steps that follow. If completing on your own, continue to Exercise 6 after saving your dossier.

**Detailed Instructions: targeting visualizations**

77. Click on the **Pipeline Details** page, select **Sales Pipeline by Stage and Close Month**, and choose the top color for the month of May that represents the deals that are currently in the Solution Validation stage —you will see that this action will filter the data in the two visualizations below.

Your page should now look like the one below:

Notice that you only have product revenue in the pipeline. Since your firm doesn’t sell product (software) without associated maintenance, you realize that you are missing an opportunity and understating your pipeline. Based on the **Pipeline Detail** grid, you know that the deal was with Rabotnics, Inc. Now you want to see who the account executive for this client is so you can clear up the discrepancy in your next meeting. To do so, you need to link the grid in **Pipeline Details** to the **bar graph** on the next page.

78. Click on the ellipses on the **Pipeline Detail** grid visualization, and choose **Select Targets**.
79. Click on the **Pipeline by Sales Executives** page in the **Table of Contents**.

80. Click on the **bar graph** on the top, the Target icon will appear on this graph, then click **Apply** — you have now linked the grid on the **Pipeline Details** page to this graph.

81. To filter, simply right-click on the client name Robatnics Inc. in the grid, and select **Go to Targets**.
This action will filter the bar chart on the next page, your view of the page should look like the one below. So, now you know that you need to speak with Barbara regarding this deal.

**EXERCISE 6: USING A VISUALIZATION IN THE FILTER PANEL**

Using a Map as a Visual Filter

**Overview**

In your last meeting, you were asked about how your pipeline information differs by city. In this exercise, we will add a map visualization to the filter panel for the Detailed Analysis chapter. Use the City attribute in the Geo Attribute drop zone. Rename the visualization filter Cities.

Your map visualization in the filter panel should look like the following:

You can complete Exercise 6 on your own, or use the detailed steps that follow. If completing on your own, continue to Exercise 7 after saving your dossier.
Detailed Instructions: Using a Map as a Visual Filter

82. Open the Filter Panel by clicking on the filter icon.

83. Click on the ellipses in the Filter Panel, and click on **Add Visualization Filter**.

84. Click on the map icon from the list of visualizations on the right, and drag the **City** attribute to the **Geo Attribute** drop zone.

Your filter should look like the one below:
85. Double-click **Visualization Filter 1**, and rename it **Cities**.

86. Click on **Save** to save the filter — this filter now applies to the content of the chapter **Detailed Analysis**.

87. To use this filter, simply click on the filter panel, and select the cities you want to analyze.

**TIP**: You can use any of the built-in visualizations as a filter. This feature is very helpful in scenarios where you would have previously added a visualization to your page for the sole purpose of using it as a selection tool. By adding the visualization to the filter panel instead, you can free up valuable screen real estate while still delivering the desired functionality.

**EXERCISE 7: FORMATTING YOUR DOSSIER**

Adding a Cover Page and Using the Color Palette

**Overview**

Congratulations! You’ve created a dossier, which is based off data sourced from your Salesforce.com system and can be used to drive your weekly pipeline meeting.

Before you share this dossier, you want to apply some formatting to make it fit in with your firm’s brand. Let’s take a few minutes and clean up the formatting of our dossier.

First, add a cover page to your dossier. You can choose any image you wish.

Second, update the dossier formatting by changing the color palette to use the **Sunset** style.

Your end product should look like the following:
You can complete Exercise 7 on your own, or use the detailed steps that follow. If completing on your own, continue to Exercise 10 after saving your dossier.

**Detailed Instructions: Formatting the dossier**

Let's add a cover image to your dossier, we would like to add our firm’s logo as the cover image.

**88.** Click on the cover image icon in the contents panel.

**89.** On the Change Cover window, choose an image, and click **Save**.

Next, we’ll change the colors in your dossier to match your firm’s color palette.
90. In the menu bar, click on **Format**, and pick the color palette named: **Sunset**.

Your dossier should now look like the screenshot below:

TIP: MicroStrategy provides a variety of color palettes (that are inspired by nature) to make it easier than ever to build beautiful dossiers with coordinated colors. Color palettes apply to the entire dossier and provide both consistency and coordination of colors.

**EXERCISE 8: OPTIMIZE YOUR DOSSIER FOR MOBILE**

**Using Responsive Design and Grouping**

**Overview**

When designing your dossier in MicroStrategy Desktop, you can preview each page in a mobile view to ensure that content is displayed on different devices or screen sizes correctly. This feature is useful because it allows you to see if any changes need to be made before viewing the dossier on a specific device type.
Dossier authors can arrange visualizations with complete flexibility within the dossier interface. As screen width changes on different devices, the visualizations that are horizontally positioned next to each other will automatically rearrange themselves into a single column. Additionally, users can group components (charts, grids, text, images, and selectors) together so that they do not separate when the content recalibrates for other screen resolutions.

For this exercise, we know that some meeting attendees will have their iPads instead of laptops. You want to make sure that your dossier can be viewed correctly on a smaller screen. Use grouping on the two KPI visualizations on the Overview page to ensure they always render together, and then use the Responsive Preview capability to verify that your two KPI visualizations display correctly.

Your final result should look like the following when using Responsive Preview:

![Responsive Preview Example](image-url)

You can complete Exercise 8 on your own, or use the detailed steps that follow. If completing on your own, continue to Exercise 9 after saving your dossier.

**Detailed Instructions: Using Responsive Design and Grouping**

First, let’s preview how this dossier will render on mobile.

91. Select the Sales Pipeline Overview chapter, and then click on the Responsive Preview icon on the toolbar.

Your page should look like the one below. As you can see in the Responsive Preview, the visualizations display stacked over each other. However, you want the page to look exactly the way you designed it.

92. Click on the Responsive Preview icon again to return to the original view.
93. Click on the **Responsive View Editor** icon to group the two KPI visualizations together.

94. Click on the two visualizations, hit **Group**, and then click **Save**.

95. Click the **Responsive Preview** icon again.

Your dossier should now look like the one below:
EXERCISE 9: PUBLISH YOUR DOSSIER TO A SERVER ENVIRONMENT

Overview
You want to share this dossier prior to your next meeting. You want your colleagues reviewing the content to be confident that the content is accurate and has your seal of approval. You need to certify your dossier to accomplish this. To access the benefits of certifying a dossier or collaborating with others on your dossier, you first need to publish your dossier to an enterprise server environment. The following steps will guide you through the process.

Detailed Steps

96. From the File menu, select Save As.

97. Name your dossier IntroductionToDossier_YourInitials, then click on the Browse Environments button to locate the Workshop environment.

98. When prompted with the following message, click Connect Environment.

99. In the Connect to Environment wizard, click Select A File.
100. Navigate to where you saved the **env-79172.mstrcc** file provided prior to this exercise as part of the Supporting Files. Select the file and click **Open**.

101. You will be presented with the details of the environment, as well as available authentication modes. Accept the default Standard Authentication mode to allow you to use a user name and password.

102. Click **Continue**.

103. In the subsequent login page, enter the username and password provided in the **Credentials_dossier.docx**:
In a production environment, you will be presented with all the projects or applications available in your MicroStrategy environment to which you can associate your dossier.

104. In this case, we will select **MicroStrategy Tutorial**. Note that you can select multiple applications or projects at the same time.

105. Click **OK** to continue.

In the subsequent dialog box, a folder-like navigation will allow you access and organize all your dossiers and folders within the application or project you have selected, in this case MicroStrategy Tutorial.

106. Double-click **MicroStrategy Tutorial**, and all the folders contained there will be shown.

108. Double-click to open the folder and then click Save to upload your dossier to this folder. Being a shared folder, there may be other dossiers already saved.

Now that you have successfully published your dossier to the server, to view it and interact with it in MicroStrategy, log in to MicroStrategy Web, and navigate to the World2018 Dossiers folder in Shared Reports.

109. Navigate to the URL provided to you in the Credentials_dossier.docx file within the supporting files folder, and log in with the credentials provided.

110. Navigate to Shared Reports>World2018 Dossiers and locate your newly uploaded dossier.

111. Open your dossier by clicking it.
This takes you to the web version of dossier authoring, very much like your MicroStrategy Desktop version only with added functionalities that will be covered in the next set of exercises. The following functionalities are available only on MicroStrategy Web and Workstation.

**EXERCISE 10: CERTIFY AND SHARE YOUR DOSSIER**

**Overview**
Certified dossiers help to maintain a single version of truth, while providing multiple users with the flexibility to author content.

Certify your dossier and add it to the Library.

You can complete Exercise 10 on your own, or use the detailed steps that follow. If completing on your own, continue to Exercise 11 after saving your dossier.

**Detailed Instructions: Certifying and sharing the dossier**

112. **Save** and close your dossier to exit the authoring window.

113. Right-click on your dossier, and select **Properties**.
114. Check the box for **Certified**, and click **OK**—your dossier is now certified!

115. Re-open the dossier.
116. Click **Share** on the menu bar, and click **Get a link to MicroStrategy Library**.

117. Click **Launch** to go to **MicroStrategy Library**, where you can test the consumer experience.
118. Log in using your credentials, and click **Add to Library** to add this dossier to your **Library**.

119. Click on the **Library** icon to go to your **Library** page.

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**EXERCISE 11: INTRODUCTION TO THE MICROSTRATEGY LIBRARY**

**Overview**

The **MicroStrategy Library** provides a simple way for users to access content in a single place – even allowing you to consume content across different MicroStrategy projects. Visually organized by tiles, each of your dossiers and Report Services documents can be launched from the **Library** and easily distinguished by their unique cover page assigned during the authoring process.

Sort your dossiers in descending order by **Date Added**. Then, from the information panel export the **Introduction to Dossier**.

Your final sorted results should look like the following:
From the MicroStrategy Library, you can sort your content by Dossier Name, Date Added, Date Updated, Date Viewed, Oldest on Top, or Newest on Top.

120. In the Sort **By** drop down, select **Date Added**.

You can also view more information about the contents of your **Library** from the information panel.

121. Click on the **information icon** from a tile in the Library.

**NOTE:** From the information panel, a dossier can be exported to PDF or downloaded as a .MSTR file directly for offline use.
122. Export the **IntroductionToDossier** dossier to PDF without opening the dossier.

**EXERCISE 12: CONSUMING DOSSIERS FROM THE MICROSTRATEGY LIBRARY**

**Overview**

Now that you have explored the Library a little bit, it’s time to consume your dossier in the Library. In addition to allowing you to further analyze your data, consuming content from the Library allows you to optimally navigate your dossier and collaborate in real-time with your peers.

In this section, we will cover the following:

1. Table of Contents
2. Filter Panel
3. Collaboration
4. Page-to-page targeting
5. Sharing

Launch the **IntroductionToDossier** dossier that you created previously.

*TIP: Note the ribbon on the left corner of the tile indicates that this is a certified dossier.*
Detailed Instructions: Dossiers in MicroStrategy Library

Table of Contents

When consuming dossiers in the MicroStrategy Library, the navigation is no longer configured in our traditional Sheet and Panel format, but rather is organized into a Table of Contents.

The Table of Contents provides a simplistic, intuitive navigation method for you to consume your dossiers like a book of business.

123. Open the Table of Contents to view the content of your dossier.

124. Navigate to Pipeline Details page from your Table of Contents.

TIP: In addition to the table of contents panel, a dossier can be navigated page by page using the arrow keys. On mobile, page-by-page navigation is supported with native swiping gestures.
Filter Panel

Now that you have opened your **Pipeline Details** page, you want to narrow down your data to look at a specific region.

125. Open the filter panel.

126. Click on the thumbtack 🗼 to pin the filter panel to the canvas of your dossier.

127. Now that the filter panel is pinned in your dossier, click on “Cities” to launch your visual filter.
128. Select the Freeform selection tool 🎨, and choose the cities on the west coast, and click **Apply**.

129. Unpin the filter panel from your dossier by clicking again on the thumbtack icon. 📡

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**TIP:** If you need to see what has been selected in the filter panel, you can view the filter manipulations in the new filter summary. To expose your selections, click view all beneath your user name in the dossier viewer.

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**Collaboration**

When consuming content through the MicroStrategy Library, you can now collaborate with other users in real time via the collaboration panel. With MicroStrategy 10.10 you can tag users at the page level, and filter manipulations at the chapter level, to directly pass context to other users.

Now that you have selected your region, you’ve noticed that the maintenance revenue looks low. Before worrying your CFO, you need to check with the person who created this dossier to make sure that the data is correct (for the sake of this exercise, assume that the **MSTR** user created this dossier).

130. Open the comment panel by clicking on this icon 📝 to begin a conversation with the dossier author.

131. Type a comment in the comment box, and then type @MSTR to tag the dossier author in your comment.
To ensure that the MSTR user is viewing your dossier with the same context, include your filter state in the comment by clicking the icon and posting your comment.

### TIP: Once the filter has been tagged in the collaboration panel, any user viewing this dossier can click on the filter icon in the comment and apply the same filter to the dossier.

**Sorting**

Now that you are looking at the **Sales Pipeline by Stage and Close Month** visualization, you want to change how your bar chart is sorted so that you see the deal values in descending order.

133. Right-click the deal value axis to access sort options.
134. Select **Sort Descending** to reorder your bar chart (you may need to clear the filters to see additional bars).

**TIP:** In the MicroStrategy Library mobile app, you can sort by holding and swiping your finger on the y-axis and dragging the chart to the right to sort. The first swipe sorts descending, the second ascending, and a third swipe restores the default position. Additionally, long-tapping any part of your visualization exposes additional options to view your data.

**Targeting**

In order to build a better analytic story, dossiers can be created with visualizations targeting one another across separate pages.

Looking at the pipeline details, the Adirondack Matters account looks small in comparison to the other west coast accounts.

135. To learn more about this account, right-click on Adirondack Matters in the grid, and select **Go to Targets**.
Once this option is selected, your dossier will navigate to another page that is filtered by your selection.

Sharing

Coincidentally, the accounts you are looking at are managed by one of your best salesperson, Barbara Aoter, who you are meeting with in 20 minutes. In most cases, you would just tag a question in the collaboration panel, but since you’re about to meet her in person, you want to have a bigger conversation about her poor performance.

Rather than writing a note in the collaboration panel, you want to ensure that Barbara has the dossier in her Library so you can discuss it in your meeting.

136. Click on the share icon 🔗, and select Invite Users from the available options.
137. Type @Aoter to find her, check her name box, and click Invite.

At this point, the invited user will get a notification email that he/she has been invited to view the dossier. We will not be covering that workflow in this workshop. If you want to experience that workflow for yourself, you can invite yourself to the dossier.

Consumers can also easily download a dossier as a MSTR file for offline use.

138. From the menu, select Download MSTR file.
EXERCISE 13: BONUS MOBILE SECTION (IOS OR ANDROID TABLET REQUIRED)

Overview

10 minutes before your meeting with Barbara, your assistant delivered you a brand-new tablet! Although you don’t have time to set up all of your apps, you realize you can quickly download and configure the MicroStrategy Library mobile app to bring to your meeting with Barbara.

In this exercise, you will:
1. Download and configure the MicroStrategy Library mobile application
2. Download dossiers for offline use in the mobile application

Detailed Instructions: Mobile

139. Download the MicroStrategy Library mobile application from the Apple App Store or Google Play Store.

140. To configure your mobile app, send a dossier from your Library to yourself via email.
141. From your mobile device, click on the link in your email, log in to your environment via the mobile web browser, and click **Open in App.**

142. Log in to your environment on the app.

Now that you have configured your app. You can simply open it from your mobile device to view your Library.

Since you’re in a rush, you can’t explore all of the features of the mobile app; however, you have just enough time to download the dossier onto your device in case you lose internet connectivity.

143. Open **IntroductionToDossier_YI** from your library.
144. From the dossier interface, tap the icon , and select **Export to PDF**.

145. Choose whether you would like to export the entire dossier or just the current chapter.

146. Since you’re in a rush, navigate back to the share panel by selecting the icon, and select **Download MSTR File**.
147. Navigate back to your Library home page by clicking back and tapping on **Library** to view your offline folders.

148. Select **MSTR Files** to view your offline dossiers.

![MSTR Files](image)

This will bring up a view of the dossiers that you have configured for offline access.

![Dossier View](image)

Follow the previous two steps and select **PDF files** to view offline PDF exports.

Congratulations! You have completed the MicroStrategy Dossier workshop! For further information on MicroStrategy, including resources and certifications within the MicroStrategy Community, please visit: https://community.microstrategy.com/.