ONE | THE AI/BI PLATFORM

MicroStrategy Certified Departmental Analyst

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4. Report Design Phase

ADMONISHMENT

By accessing the Departmental Analyst certification project environment, you automatically agree to the terms and conditions listed in this section.

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1

PROJECT OVERVIEW

Certification guidelines

This certification is designed to test your ability to create dashboards and reports.

The following are the basic guidelines for completing the Departmental Analyst certification project:

- You must complete the project within the assigned time frame on the assigned day. This certification is timed, so you are not allowed to work extra hours. At the end of the assigned time, access to your MicroStrategy Cloud environment will be terminated.
- You must correctly complete enough tasks to attain an overall passing grade (80%) on your first attempt and any subsequent attempts.
- The certification leverages automated processes to ensure timely, unbiased grading that renders pass/fail results. These processes require that you follow instructions precisely. For example, when your project is graded, any of the following conditions result in 0 points for the overall task:
    - Any incorrect or missing task (or component of a task)
    - The object is not saved in the correct subfolder in the Certification folder

    - The object is not saved with the correct name

- To receive full points in a section, ensure all number formatting matches the specifications.
- Matching the result check provided for a report or dashboard does not mean that you will receive full credit for that report or dashboard. Points can be deducted for required features that are not present or not created correctly.
- In the Report Design phase, each report is evaluated on two parameters: correct report results and using the correct report requirements.
    - If the report results are incorrect, no points are given for the entire report.
    - If the report results are correct, but the correct report requirements are not met, you are awarded a portion of the total points for the report.
    - If the report results are correct and the correct report requirements are met, you are awarded the total points for that report. All of the reporting requirements must be met to obtain the total points associated with that task.
- You may use your course manuals, MicroStrategy online help, MicroStrategy product manuals, and the MicroStrategy Knowledge Base for assistance in completing the project. **However, you may not ask anyone for assistance**.

Departmental Analyst certification project phases

The Departmental Analyst certification project consists of the following phases:

- *Dashboard Design Phase, page 18*
- *Report Design Phase, page 34*

These chapters contain descriptions of the tasks and result checks.

All phases of the project are completed in the MicroStrategy Tutorial project. The dashboard and report phases are independent of each other.

Saving your objects

Save dashboards, reports, and other objects in the MicroStrategy Tutorial project, in the correct subfolder in the Certification folder. Save objects with the names indicated in the requirements. Do not translate folder or object names into other languages. For example, the first dashboard that you create must be named Dashboard 1: Region and Call Center Analysis, in the Dashboards subfolder within the Certification folder.

Objects are reviewed in the correct subfolder in the Certification folder only. No points are awarded if you save your objects in a different folder or subfolder, or with a name different from that indicated in the requirements.

Although the step to save your dashboard or report is usually one of the last steps listed in the instructions, you should save it periodically as you work through the requirements, to ensure that all your changes have been saved.

Screen resolution

It is recommended to use the highest possible screen resolution on your machine to be able to view both the Departmental Analyst project booklet and the MicroStrategy software at the same time.

Departmental Analyst certification project environment

You complete all phases of the Departmental Analyst certification in the **MicroStrategy Tutorial** project in your Cloud environment. You do not need to create or use any other projects. You can use MicroStrategy Web or MicroStrategy Library for all phases of the certification.

Monitoring certification time

You must complete the certification project within the assigned time. You are responsible for tracking your time. There are no automatic messages or pop-up timers that warn you when your project time is about to expire. At the end of the assigned time, you are automatically disconnected from the virtual environment.

Project evaluation

The following table displays the high-level skills on which your project is evaluated:

Departmental Analyst Project Evaluation

Project Task
PHASE 1: DASHBOARD DESIGN PHASE (60%)
• Import and clean data from an external source • Import data from MicroStrategy reports and Existing Objects • Create layers, visualizations, and filters • Format visualizations • Drill into data • Create derived metrics
PHASE 2: REPORT DESIGN PHASE (40%)
• Add prompts and filters to a report • Answer prompts and adjust filters • Format and manipulate report results

Certification projects are graded within one week. You will receive your results via email.

Troubleshooting

If you experience issues such as connecting to your MicroStrategy Cloud environment or other technical issues, email **education@microstrategy.com**. Provide a detailed description of the issue and we will respond as soon as possible on weekdays between 9am and 5pm ET.

2

SETTING UP YOUR ENVIRONMENT

Configuring your MicroStrategy Cloud environment

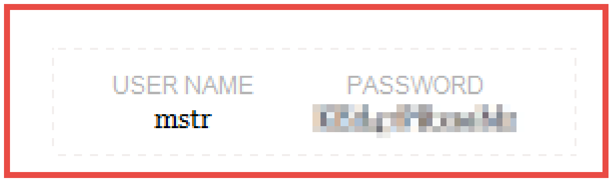
These are the steps to access and configure your Cloud environment to complete the tasks required for the Departmental Analyst certification. The information you need to access your environment is included in the Welcome to MicroStrategy on Cloud email. You must complete these steps before attempting the Departmental Analyst certification tasks.

Access your cloud environment

1 In the Welcome to MicroStrategy on Cloud email, click **Access MicroStrategy Platform**.

2 In the Login MicroStrategy web page, in the **User name** and **Password** boxes, type (or copy and paste) the login credentials provided in the Welcome to MicroStrategy on Cloud email, then click **Login**. The image below is an

example of how the credentials look in your email; the credentials that you need to log in are different.



3 The MicroStrategy landing page displays in a browser window. If prompted in the security window, reenter your cloud credentials and click **Sign in**.

Open MicroStrategy Web or Library

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1 You can use MicroStrategy Web or Library to complete the certification.

- To access MicroStrategy Web:
  - On the MicroStrategy Cloud landing page, scroll down and hover your cursor over **MicroStrategy Web**, then click the **Launch** icon. The MicroStrategy Tutorial Home page opens.
    - If you are unable to click Launch, navigate to https://env-**xxxx.**customer.cloud.microstrategy.com/MicroStrategy/servlet/mstrWeb. Replace **xxxx** with your environment number.
  - Click **MicroStrategy Web**. The Shared Reports folder of the MicroStrategy Tutorial project opens.
- To access MicroStrategy Library:
  - On the MicroStrategy Cloud landing page, scroll down and hover your cursor over **MicroStrategy Library**, then click the **Launch** icon.
  - Log in with the credential provided in the Welcome to MicroStrategy on Cloud email. Your Library home page opens.

For both Web and Library, Google Chrome is the recommended web browser.

Creating the Certification folder and subfolders

You need to save all the objects that you create, including any dashboards, reports, and supporting objects in the MicroStrategy Tutorial project, within

a custom folder named Certification. Save objects with the names indicated in the requirements, in the subfolder indicated in the requirements.

Objects are reviewed in the indicated subfolder within the Certification folder only. No points are awarded if you save your objects in a different folder or subfolder. Likewise, no points are awarded for an object that is not named correctly.

You can use MicroStrategy Web or Library to complete the certification. The procedures below explain how to create the Certification folder and subfolders in Web or Library. If you create a folder or subfolder in Web, it is also available to you in Library, and vice-versa. **Be sure to use the MicroStrategy Tutorial project.**

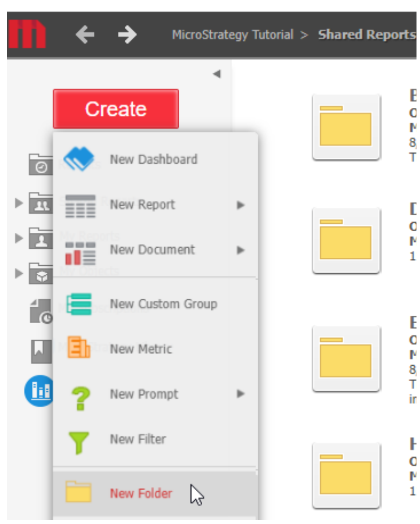
In Web, you create folders in the MicroStrategy Tutorial project before starting a new dashboard or report. In Library, you first create a new dashboard or report and then create a folder when saving it. When you create the dashboard or report in Library, ensure you use the MicroStrategy Tutorial project.

Use Web to create the Certification folder and subfolders

To create the Certification folder and subfolders in Web, follow the steps below.

Create the Certification folder

1 In the Shared Reports folder of the MicroStrategy Tutorial project, click **Create**, and then select **New Folder**.



2 In the Create Folder window, in the **Name** box, type **Certification**.

3 Click **OK**.

4 Click the **Certification** folder to access it.

Create a Dashboards subfolder in the Certification folder

5 In the Certification folder, click **Create**, and then select **New Folder**.

6 In the Create Folder window, in the **Name** box, type **Dashboards**.

7 Click **OK**. Use this folder to save all the reports that you create in the Dashboard Design phase.

Create a Reports subfolder in the Certification folder

8 In the **Certification** folder, click **Create**, and then select **New Folder**.

9 In the Create Folder window, in the **Name** box, type **Reports**.

10 Click **OK**. Use this folder to save all the reports that you create in the Reports Design phase.

Use Library to create the Certification folder and subfolders

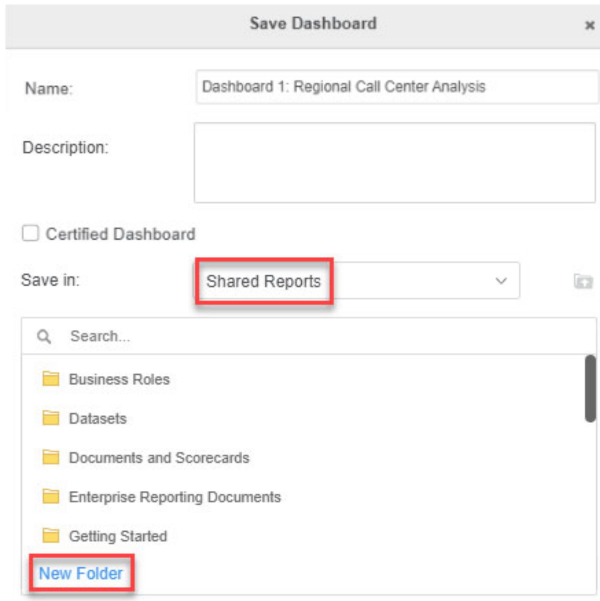
In Library, you create new folders and subfolders when you save a report or dashboard. If you use Library, refer to these steps when you first save a dashboard or report, to create the Certification folder and subfolders.

Create the Certification folder

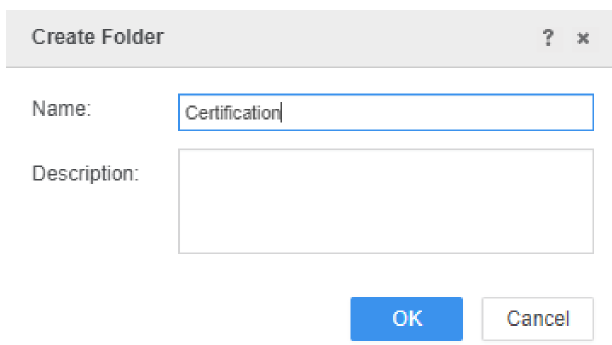
1 In Edit mode of the report or dashboard you want to save, click the **File** menu and select **Save As**.

2 In the Save window, in the **Save in** drop-down list, select **Shared Reports**.

3 Click **New Folder**.



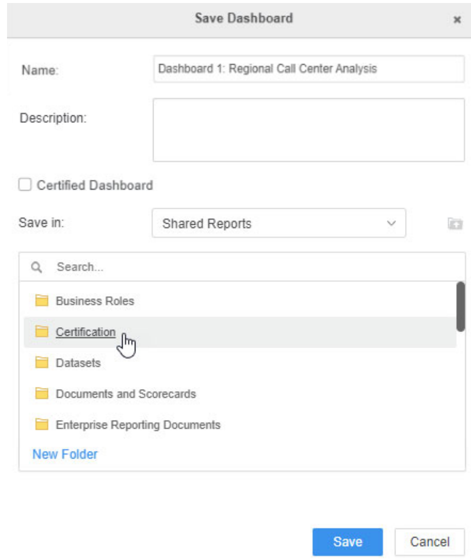
4 In the Create Folder window, in the **Name** box, type **Certification**, and then click **OK**.



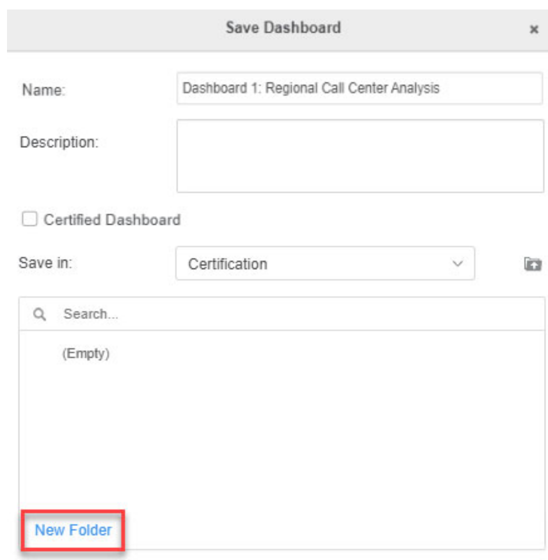
Create the Dashboards subfolder

5 In the Save window, ensure that **Shared Reports** is selected in the **Save in** drop-down list.

6 Click the **Certification** folder.

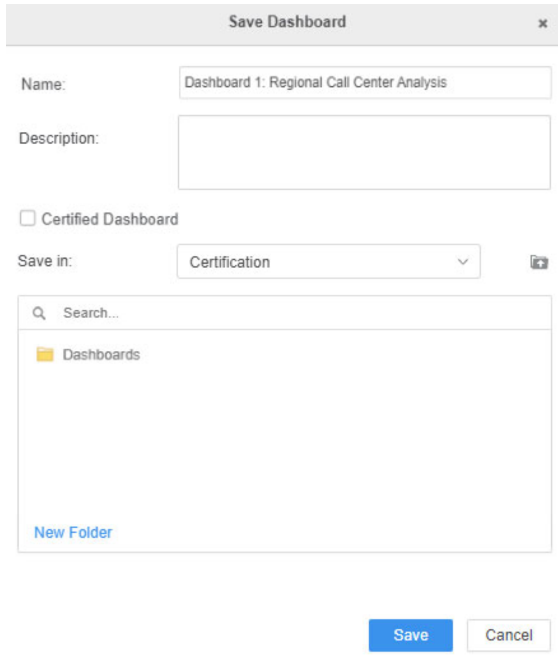


7 In the Certification folder, click **New Folder**.



8 In the Create Folder window, in the **Name** box, type **Dashboards**, and then click **OK**.

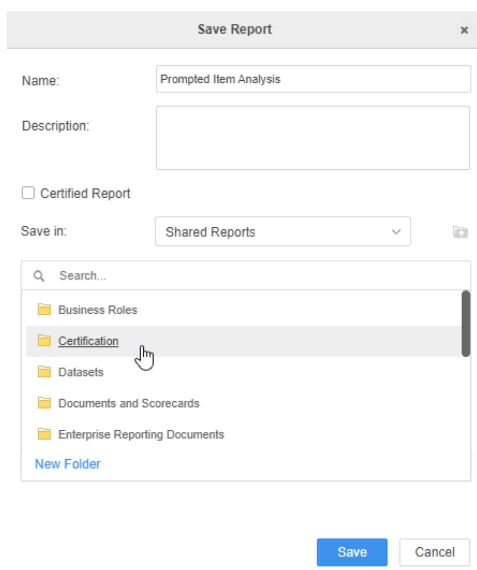
The Dashboards folder displays within the Certification folder. Click the folder to save dashboards in it.



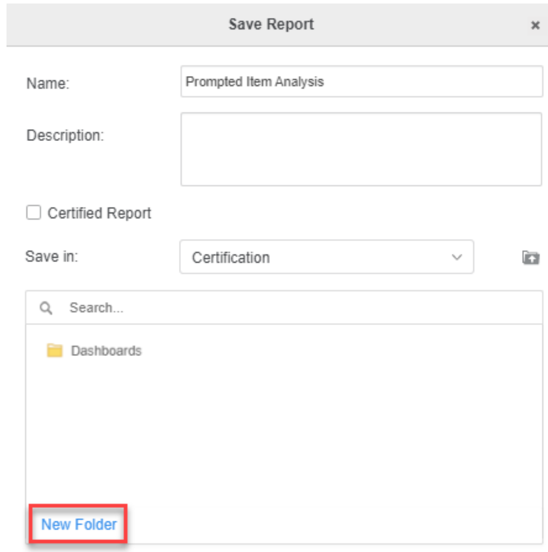
Create the Reports subfolder

9 In the Save window, ensure that **Shared Reports** is selected in the **Save in** drop-down list.

10 Click the **Certification** folder.

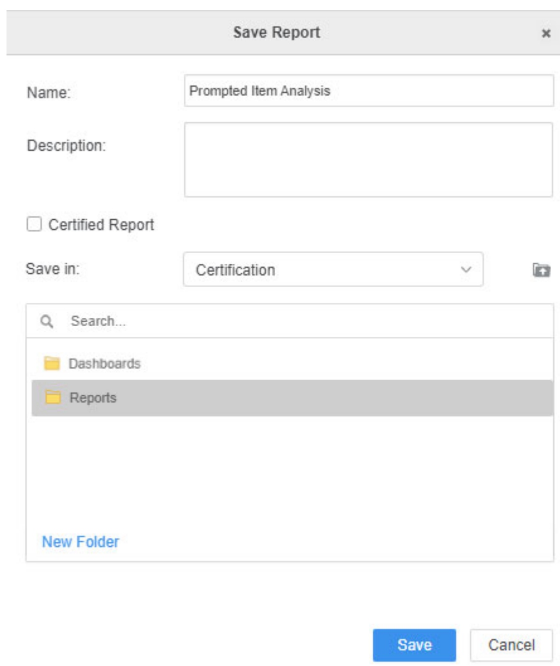


11 In the Certification folder, click **New Folder**.



12 In the Create Folder window, in the **Name** box, type **Reports**, and then click **OK**.

The Reports folder displays within the Certification folder. Click the folder to save reports in it.



3

DASHBOARD DESIGN PHASE

Phase description

This phase of the certification project requires you to create dashboards in the **MicroStrategy Tutorial** project, using MicroStrategy Web or Library.

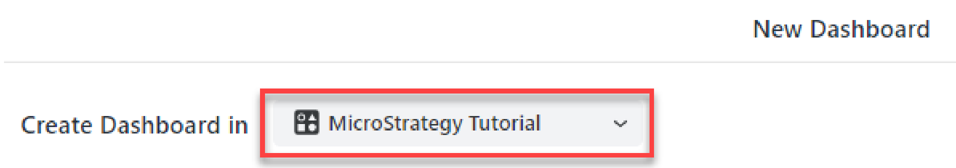
Save the dashboards in the **Dashboards** subfolder in the **Certification** folder, with the names indicated in the requirements.

Dashboard 1 creation

Create a dashboard based on the following requirements.

Import data into a new dashboard

1 Create a new blank dashboard. Ensure you create the dashboard in the **MicroStrategy Tutorial** project, as shown below in Library.



2 Import data from the **Geography Dataset** Excel spreadsheet. This spreadsheet is provided in the exercise files.

- Create a multi-form attribute named **Manager**, based on the Manager ID and Manager Last Name. Each attribute form should be available to display.
- Create a multi-form attribute named **Month**, based on the Month ID and Month Name. Only the Month Name form should be available to display, not the Month ID.
- Convert **Revenue** from an attribute to a metric.
- Define geography (also known as adding a geo role) for the **Call Center** attribute. Select the **City** geographic type.
- One region displays as **NW** in the data preview, although it should display as **Northwest**. Fix it using data wrangling.
    - Hint: Use Text Selector on the relevant column and edit NW to display as Northwest.

3 Save the dashboard as **Dashboard 1: Region and Call Center Analysis** in the **Dashboards** subfolder in the **Certification** folder.

- If you are using MicroStrategy Web, you already created the Certification folder and Dashboards subfolder in *Use Web to create the Certification folder and subfolders, page 12*.
- If you are using MicroStrategy Library, refer to the steps in *Use Library to create the Certification folder and subfolders, page 13* to create the

Certification folder and Dashboards subfolder in Library, if you haven't done so already.

- Save the dashboard periodically as you work through the requirements to ensure that all your changes have been saved. If you do not save the dashboard with the correct name in the correct folder, you will receive zero points for the dashboard.

4 Rename the chapter to **Analysis by Year**.

Create a heat map

1 Change the default grid visualization to a heat map visualization.

2 Build out the heat map visualization based on the following requirements:

- Group the tiles by **Call Center** within **Region**.
  - Hint: Be sure that Region is listed above Call Center in the relevant Editor panel drop zone.
- Color the tiles by the **Profit**.
- Size the tiles by the **Units Sold**.
- Change the threshold range to **Tropical Jungle**.
- Adjust the threshold range to use these color band endpoints:
  - Band 1 (red): **17%**
  - Band 2: **33%**
  - Band 3: **50%**
  - Band 4: **67%**
  - Band 5: **83%** (add a new band, in the green range)
  - Band 6 (darkest green): **100%**

Create a bubble chart

1 On the same page as the heat map, create a bubble chart visualization based on the following requirements:

- Display **Profit Margin** on the vertical axis and **Profit** on the horizontal axis.

- Display a bubble for each **Call Center**.
- Color the bubbles by **Region**.
- Size the bubbles by the **Units Sold**.
- Add **Revenue** to the tooltip.
- Change the marker shape from a circle to a square.
  - Hint: Change the Graph Shape in the Format panel.
- Rename the visualization **Bubble Chart: Call Center Profit**.

Add filtering

1 Create a filter using the Filter panel:

- Filter on **Year**, with a display style of check boxes.
- Use the filter to display data for the year **2021** only.

Create a new page or chapter

1 Create a page or chapter that automatically uses the same Filter panel as the previous visualizations. Only one option (page or chapter) is correct.

2 Rename the page with the heat map and bubble chart **Region Data**.

3 Rename the new page or chapter **Time Data**.

Develop the Time Data page or chapter

1 On the **Time Data** page or chapter, change the default grid visualization to a vertical stacked bar chart visualization.

2 Build out the vertical stacked bar chart visualization based on the following requirements:

- Display **Profit** on the vertical axis and **Quarter** on the horizontal axis.
- Break the bars by **Month**, but to avoid distracting the user with too many colors, do not color the bars by month. All segments in each bar should be colored the same.

- Name the bar chart **Bar Chart: Quarterly Profit**.

3 On the **Time Data** page or chapter, create a grid visualization based on the following requirements:

- Display **Quarter** and **Manager** in the rows, in that order.
- Display **Revenue** and **Profit** in the columns, in that order.
- Move the grid below the bar chart.
- Rename the grid **Grid: Quarter and Manager Analysis**.

Create a new page or chapter

1 Create another page or chapter that automatically uses the same Filter panel as the previous visualizations.

2 Rename this new page or chapter **Maps**.

Develop the Maps page or chapter

1 Define an additional geographic attribute for state using the **Call Center** attribute. Name it **State**.

- Hint: Right-click **Call Cente**r in the Datasets panel and select **Define Geography**. Leave the Geographic Type as **City**, and create an additional attribute for **State**.

2 **Save** the dashboard.

3 On the **Maps** page or chapter, change the default grid visualization to a Geospatial Service map visualization.

4 Build out the Geospatial Service map visualization based on the following requirements:

- Change the map style to **Street**.
  - Hint: Adjust the Map Layout.
- Hide the title bar.
- On the first layer of the map, create a bubble map:

    - Display a bubble for each **Call Center**.
    - Color the bubbles by **Revenue** and size them by **Profit**.
    - Cluster the bubbles.
    - Rename this map layer **Call Center Bubble**.
- Create a second layer on the map, displaying an area map:
    - Color **States** by **Revenue**, using the **Business Red** color scheme.
    - To resolve exact locations, add **Country** as a secondary Geo Attribute in the Editor panel.
    - Rename this map layer **State Area**.

Create a new page or chapter

1 Create another page or chapter that automatically uses the same Filter panel as the previous visualizations.

2 Rename this new page or chapter **Drilling**.

Develop the Drilling page or chapter

1 Copy the heat map from the **Region Data** page or chapter to the **Drilling** page or chapter.

2 On the Drilling page or chapter:

- Delete the default grid visualization.
- In the heat map, drill to **Quarter** from **New York**, **New Orleans**, and **Milwaukee**.
- Rename the heat map to **Heat Map: Quarterly Profit**.

Add more filtering

1 On the **Region Data** page or chapter, filter the bubble chart using the heat map.

- Use the heat map to display only the three southern regions in the bubble chart (South, Southwest, Southeast).
- Rename the heat map visualization to **Heat Map: Click to filter the bubble chart**

2 On the **Time Data** page or chapter, filter the bar chart by **Call Center**.

- Use the **List Box** display style.
- Allow multiple selections.
- Display the filter title bar, and rename the filter to **Filter bar chart**.
- Move the filter to the left of the bar chart.
- Filter the bar chart to display **Atlanta** and **Miami**.
    - Hint: To select more than one call center, press **CTRL**.

3 On the **Time Data** page or chapter, filter the grid by **Manager**.

- Use the **Check Boxes** display style.
- In the filter, display the **Manager Last Name** form, but not the Manager ID.
- Display the filter title bar, and rename the filter to **Filter grid**.
- Move the filter to the left of the grid, below the bar chart filter.
- Filter the grid to display **Cooper**.

4 On the **Maps** page or chapter, filter both map layers on **Profit**.

- Use the display style of **Slider** (the default).
- Display Profit values **less than or equal to $250,000**. If you can't drag the slider to exactly $250,000, click the end point of the slider and type 250000 in the box.
- Change the filter title bar font size to **8**.

Save and certify the dashboard

1 On the **Maps** page or chapter, zoom out so that at least one cluster displays.

2 Save your final dashboard. Remember to save it as **Dashboard 1: Region and Call Center Analysis** in the **Dashboards** subfolder in the **Certification** folder.

3 Certify the dashboard.

- Hint: If you are using Library, you can do this when you save the dashboard, or by viewing the dashboard in Edit mode and using the File menu.

Result check: Dashboard 1

You can use the following result checks to verify whether your **Dashboard1: Region and Call Center Analysis** dashboard yields the correct results:

- The Filter panel displays years, with 2021 selected. It applies to all the pages or chapters in the dashboard.
- On the **Region Data** page or chapter:
  - New York has the largest tile on the heat map, with 68,592 Units Sold. It is displayed in the darkest green, with $439,055 in Profit.
  - South, Southeast, and Southwest are selected in the heat map.
  - New Orleans has the largest square on the bubble chart, with 32,519 Units Sold.
  - Only Call Centers from the southern regions are displayed in the bubble chart.
- On the **Time Data** page or chapter:
  - Atlanta and Miami are selected in the bar chart filter.
  - The bar chart displays data for 2021 quarters only.
    - The quarter with the lowest profit is Q3. Within Q3, the month with the lowest profit is July, with $5,636.
  - Cooper is selected in the grid filter.
  - The grid displays data for 2021 quarters and manager 18 Cooper only.
- On the **Maps** page or chapter:
  - The Profit filter is set to less than or equal to $250,000.
  - The Call Center Bubble map layer displays 11 Call Centers (do not forget to count Call Centers that are clustered in a single bubble as separate).
  - If you zoom in so that bubbles are not clustered, San Diego has the highest Revenue, with $98,024, so it is displayed in the darkest blue. The biggest

bubble is New Orleans, with $201,149 in Profit. (Be sure to zoom out and save the dashboard with at least one cluster displayed.)

- The State Area map layer displays 10 states. Utah and Washington are displayed in the lightest red, with $29,904 and $32,427 in Revenue respectively.

- On the **Drilling** page or chapter:
  - The heat map displays data for 2021 quarters and the New York, Milwaukee, and New Orleans call centers. The call centers are displayed within their Region.
  - The biggest tile is New York 2021 Q4, with 20,014 Units Sold. It is the darkest green shade, with $116,407 in Profit.

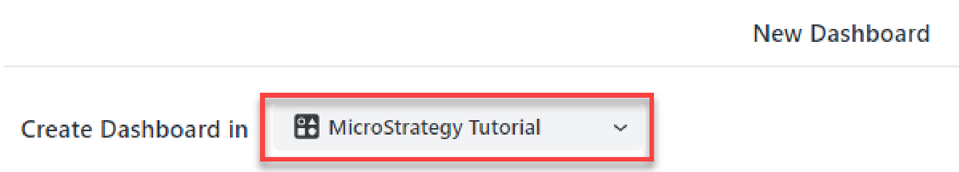
Matching the result checks does not mean that you will receive full credit for your dashboard. Points can be deducted for requirements that are not met or not implemented correctly.

Dashboard 2 creation

Create a dashboard based on the following requirements.

Import data into a new dashboard

1 Create a new blank dashboard. Ensure you create the dashboard in the **MicroStrategy Tutorial** project, as shown below in Library.



2 Import data from the following MicroStrategy reports, located in the **Shared Reports\Subject Areas\Sales and Profitability Analysis** folder:

- **Regional Sales Management Report**
- **Revenue and Profit Performance by Brand**

3 Save the dashboard as **Dashboard 2: Category Revenue and Profit Analysis** in the **Dashboards** subfolder in the **Certification** folder.

- If you are using MicroStrategy Web, you already created the Certification folder and Dashboards subfolder in *Use Web to create the Certification folder and subfolders, page 12*.
- If you are using MicroStrategy Library, refer to the steps in *Use Library to create the Certification folder and subfolders, page 13* to create the Certification folder and Dashboards subfolder in Library, if you haven't done so already.

4. Save the dashboard periodically as you work through the requirements, to ensure that all your changes have been saved. If you do not save the dashboard with the correct name in the correct folder, you will receive zero points for the dashboard.

Create a grid

1. Create a grid visualization based on the following requirements:
   - Use the **Revenue and Profit Performance by Brand** dataset.
   - Display **Revenue** and **Revenue Growth** values (in that order) by **Year** and then **Category**.
   - Highlight the **Revenue Growth** values using the **Emerald** threshold color scheme.
     - Create four equal color bands.
       - Hint: Delete the darkest green band and adjust the endpoints.
     - Restart the threshold calculations for each year.
   - Rename the visualization **Revenue Performance by Category**.

Create a ring chart

1. Create a ring chart visualization based on the following requirements:
   - Use the **Revenue and Profit Performance by Brand** dataset.
   - Slice and color the rings by **Category**.
   - Size the slices by **Profit** and **Profit Margin**. (This creates two ring charts.)
   - Stack the ring charts vertically. The Profit ring chart should display above the Profit Margin ring chart.

- Rename the visualization **Profit Performance by Category**.

Create a bar chart

1 Create a vertical bar chart visualization based on the following requirements:

- Use the **Regional Sales Management Report** dataset.
- Display **Year**, followed by **Category**, on the horizontal axis.
- Display **Units Sold** on the vertical axis.
- Color the bars by **Year**.
- Rename the visualization **Units Sold by Year**.

2 Move the bar chart beneath the grid, and place both visualizations on the left of the dashboard. The two ring charts should take up the entire right side, to maximize readability.

3 Display the titles for all the visualizations on this page in a size **10** font.

- Ensure that the grid is sized so that both years, the categories, and both metric columns can be viewed simultaneously, without scrolling.

Use the grid as a filter

1 Use the grid to filter the ring chart and bar chart.

- Select **Books**, **Movies**, and **Music** on the grid.

2 Name this page **Revenue and Profit Overview**.

Create a new page or chapter

1 Create a new page or chapter that automatically uses a different Filter panel than the previous visualizations. Only one option (page or chapter) is correct. Name this page or chapter **Network Display**. If you choose to create a new chapter, name both the chapter and its Page 1 as Network Display.

Create a network visualization

1 On the **Network Display** page or chapter, change the default grid visualization to a network visualization.

2 Build out the network visualization based on the following requirements:

- Use the **Regional Sales Management Report** dataset.
- Analyze the relationship between **Region** and **Category**.
- Color the lines by **Profit** and size them by **Revenue**.
- Size the items by **Revenue**.
- Use edge direction, node shapes, and node colors to ensure that it is easy to see that the lines originate at Region.
  - Use green triangles for the **From** nodes.
  - Use red hexagons for the **To** nodes.
- Rename the visualization **Region and Category Connected by Profit and Revenue**.

Save the dashboard

1 Save your final dashboard as **Dashboard 2: Category Revenue and Profit Analysis** in the **Dashboards** subfolder in the **Certification** folder.

Result check: Dashboard 2

You can use the following result checks to verify whether your dashboard yields the correct results:

- **Revenue Performance by Category** visualization: The lightest green is used for Revenue Growth for Movies in 2021 and Music in 2022.
- **Profit Performance by Category** visualization: There are two ring charts, one for Profit and one for Profit Margin. Books contribute the most to Profit and Profit Margin. Music contributes the least to Profit and Profit Margin.
- **Units Sold by Year** visualization: Three categories and three years display. For each category, 2022 has the highest units sold.

- **Region and Category Connected by Profit and Revenue** visualization: The thickest arrow points to Electronics, which is the largest shape.

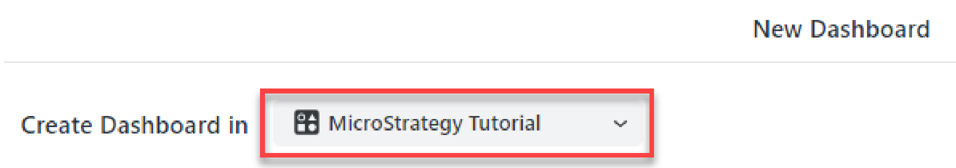
Matching the result checks does not mean that you will receive full credit for your dashboard. Points can be deducted for requirements that are not met or not implemented correctly.

Dashboard 3 creation

Create a dashboard based on the following requirements:.

Import data into a new dashboard

1 Create a new blank dashboard. Ensure you create the dashboard in the **MicroStrategy Tutorial** project, as shown below in Library.



2 Import the following existing objects into the dashboard:

- Attributes: **Call Center**, **Region**, **Category**, **Subcategory**
- Metrics: **Profit**, **Revenue**, **Units Sold**
- Hint: In the Datasets panel, click **Existing Objects** and search for each of these objects. Use the drop-down list to switch between searching for Attributes and Metrics.

3 Create a derived metric that divides **Revenue** by **Units Sold**.

- Name the derived metric **Revenue Per Units Sold**.
- Format the derived metric as $ currency with two decimal places.

Create a grid

1 Create a grid visualization based on the following requirements:

- Display **Region**, **Call Center**, **Category**, and **Subcategory** in the rows (in that order).
- Display **Profit**, **Revenue**, and **Revenue Per Units Sold** in the columns (in that order).
- Display totals at the bottom of the rows.

2 Format the grid in the following ways:

- Rename the visualization to **East Coast Sales**.
- Set the entire grid font to **Arial**, size **10**.
- Set the title font to **Arial Black**, size **14**, and **left-aligned**.
- Add the thickest solid border to the visualization container, and color the border **Navy #193B67**.

3 Add a page-level object filter to filter the grid by region:

- Display the filter as a **Link Bar** and allow multiple selections.
- Display **Mid-Atlantic**, **Northeast**, and **Southeast**.
- Change the font in the filter to **Arial**, size **10**.

Save the dashboard

1 Save your final dashboard as **Dashboard 3: Sales Grid** in the **Dashboards** subfolder in the **Certification** folder.

- If you are using MicroStrategy Web, you already created the Certification folder and Dashboards subfolder in *Use Web to create the Certification folder and subfolders, page 12*.
- If you are using MicroStrategy Library, refer to the steps in *Use Library to create the Certification folder and subfolders, page 13* to create the Certification folder and Dashboards subfolder in Library, if you haven't done so already.

Result check: Dashboard 3

You can use the following result checks to verify whether your dashboard yields the correct results:

- Only three regions are displayed on the grid.
- The Total Profit for Books in Washington, DC is $50,723.
- The Revenue Per Units sold for Audio Equipment in Charleston is $232.18
- The Total Revenue, across all categories and call centers, is $15,246,981.

Matching the result checks does not mean that you will receive full credit for your dashboard. Points can be deducted for requirements that are not met or not implemented correctly.

4

Report Design Phase

Phase description

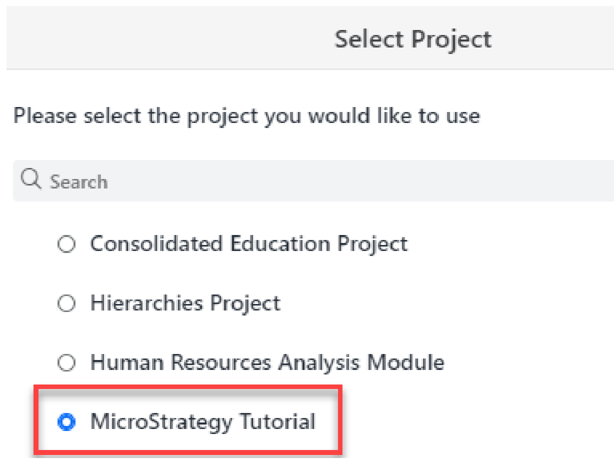
This phase of the certification project requires you to create reports in the **MicroStrategy Tutorial** project, using MicroStrategy Web or Library.

Save the reports in the **Reports** subfolder in the **Certification** folder, with the names indicated in the requirements.

Report 1 creation

Create a report

1 Create a new report based on the following requirements. Ensure you create the report in the **MicroStrategy Tutorial** project, as shown below in Library.



The prompts you need are located in **Public Objects\Prompts**.

- Display the **Call Center** attribute and the **Item** attribute in the rows, in that order.
- Page the report by **Category**.
- Use the **Choose from a list of metrics** prompt to determine which metrics display in the columns of the report layout.
    - Display **Revenue** and **Cost** on the report, in that order.
    - Hint: When answering prompts, to change the order in which selected items display on the report, use the **Move Up** icon and the **Move Down** icon.
- Use the **Choose from a list of Regions** prompt to filter the data returned from the data source.
    - Return **Mid-Atlantic**, **Northeast**, and **Southeast** from the data source.

Edit the report

1 Edit the report to meet the following requirements:

- Format the **Revenue** and **Cost** metric values to display as $ currency with two decimal places.
- Show totals at the bottom of rows, including the **Total** and **Average**.
  - If you are using Library, keep the default Applied Level.

Save the report

---

1 Save the report as **Prompted Item Analysis**, in the **Reports** subfolder in the **Certification** folder.

- If you are using MicroStrategy Web, you already created the Certification folder and Reports subfolder in *Use Web to create the Certification folder and subfolders, page 12*.
- If you are using MicroStrategy Library, refer to the steps in *Use Library to create the Certification folder and subfolders, page 13* to create the Certification folder and Reports subfolder in Library, if you haven't done so already.
- Keep the report prompted (both the filter and template).
- Set the current prompt answers to be the default prompt answers.

Result check: Report 1

You can use the following result checks to verify whether your report yields the correct result set:

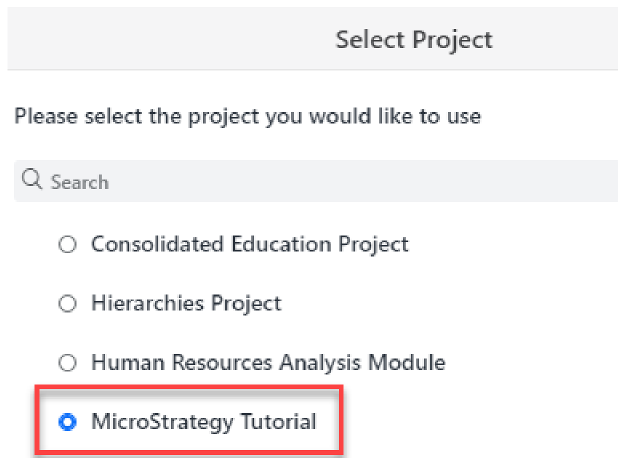
- The Page-By drop-down list contains four categories, Total, and Average.
- The result set for the Books category contains 554 rows.
- For Books in Atlanta:
  - The Cost for Art As Experience is $501.18
  - The Average Revenue is $894.62
  - The Total Cost is $63,230.34

Matching the result checks does not mean that you will receive full credit for your report. Points can be deducted for requirements that are not met or not implemented correctly.

Report 2 creation

Create a report

1. Create a report based on the following requirements. Ensure you create the report in the **MicroStrategy Tutorial** project, as shown below in Library.



- Use the **Shipped within 5 days** filter to determine the data returned from the data source.
    - In Web, this filter is located in **Public Objects\Shared Filters\Miscellaneous Filters**.
    - In Library, this filter is located in **Public Objects\Filters\Miscellaneous Filters**.
- Display the **Category**, **Supplier**, and **Item** attributes in the rows, in that order from left to right.
- Display the **Revenue** metric in the columns.

Run and manipulate the report

1. Run the report, and then manipulate it based on the following requirements:

- Display the **ID** form of **Item**, to the left of the **DESC** form.
- Display totals at the bottom of the rows (only **Total**, no other subtotal types such as Average).
    - If you are using Library, keep the default Applied Level.

Save the report

1 Save the report as **Filtered Revenue Analysis**, in the **Reports** subfolder in the **Certification** folder.

- If you are using MicroStrategy Web, you already created the Certification folder and Reports subfolder in *Use Web to create the Certification folder and subfolders, page 12*.
- If you are using MicroStrategy Library, refer to the steps in *Use Library to create the Certification folder and subfolders, page 13* to create the Certification folder and Reports subfolder in Library, if you haven't done so already.

Result check: Report 2

You can use the following result checks to verify whether your report yields the correct result set:

- The result set contains 401 rows and 1 column.
- For the supplier Bantam Books, the Item ID for The Prince is 31.
- For the supplier John Wiley & Sons, the Total Revenue is $243,016.

Matching the result checks does not mean that you will receive full credit for your report. Points can be deducted for requirements that are not met or not implemented correctly.

Report 3 creation

Modify a report

1 Begin with the **Filtered Revenue Analysis** report that you created previously, *Report 2 creation, page 37*. To create a copy of it, save it as **Music Filtered Revenue Analysis** in the **Reports** subfolder in the **Certification** folder.

2 In the **Music Filtered Revenue Analysis** report, modify the data that is retrieved from the data source:

- In addition to being shipped within 5 days, data must also meet the condition **Region = South**.

3 Add filter conditions that modify which data displays on the report (rather than the data that is retrieved from the data source):

- Display only the **Music** category and **Revenue greater than 5000**.

4 In addition to the Category level, display data at the **Subcategory** level.

- Hint: Use drilling and keep the parent attribute (origin). Do not save the report until after you view the results.

Save your changes to the report

1 Save your final report as **Music Filtered Revenue Analysis** in the **Reports** subfolder in the **Certification** folder.

Result check: Report 3

You can use the following result checks to verify whether your report yields the correct result set:

- The result set contains 100 rows and 1 column.
- The Total Revenue for the supplier BMG within the Alternative subcategory is $37,336.
- The Total Revenue for the Alternative subcategory is $85,761.
- The grand Total Revenue is $444,761.

Matching the result checks does not mean that you will receive full credit for your report. Points can be deducted for requirements that are not met or not implemented correctly.

Certification submission

Once you have completed all phases of the certification, no further action is needed. You can close your environment.

Certification projects are graded within one week. You will receive your results via email.

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