Dynamic Dashboards - Lab Exercises

Overview

Welcome to the Splunk Education lab environment. These lab exercises will guide you through the process of creating dashboards using Dashboard Studio. You will add inputs, dynamic drilldowns, and add dynamic coloring to visualizations.

Scenario: **Buttercup Games operates a chain of video gaming cafes. Customers can purchase typical cafe items and purchase video games to play online at the cafe. The sales team at Buttercup Games wants dashboards that provide insight into both product and game sales.**

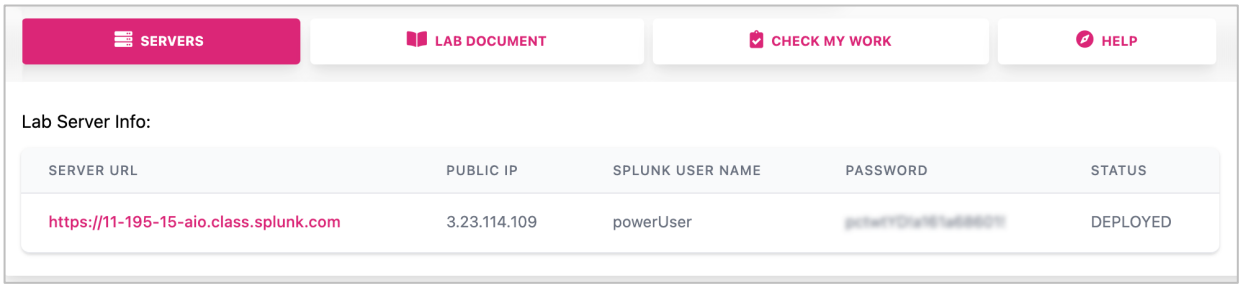
IMPORTANT: Save dashboards you create to the Dynamic Dashboards app with permissions set to Private. If you copy text from this document, please note that character formatting and artifacts created by the PDF generation process can cause errors in the XML. Consider using a text editor as an interim step.

Typographical Conventions

- **Blue** text indicates text to **add**
- **Red** text indicates text to **remove**
- **Grey** text provides context for edits

Lab Connection Info

Access labs using the server URL, user name, and password shown in your lab environment.



Source Types

The source types used in these exercises are referred to by the type of data they represent.

Type	Index	Source type	Interesting Fields
Cafe Food	`cafefood`	`access_combined_cf`	`action, bytes, categoryId, clientip, itemId, JSESSIONID, price_large, price_med, product_name, productId, referer, referer_domain, roast, status, user, useragent`
Cafe Games	`cafegames`	`access_combined_cg`	`action, bytes, categoryId, clientip, JSESSIONID, player1name, player1score, player2name, player2score, price, product_name, productId, referer, referer_domain, sale_price, status, user, useragent`

Lab Exercise 1 – Using Tokens

Description

In this exercise you will create a dashboard and add a panel with predefined tokens.

IMPORTANT: Save dashboards you create to the Dynamic Dashboards app with permissions set to Private. For steps that require adding text, consider typing it manually into the editor.

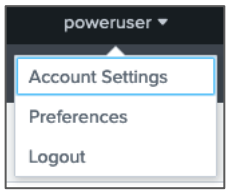
Copying text from this PDF can add extra characters that cause errors in the dashboard source code.

Wireframe:

Steps

Task 1: Change the account name and time zone.

Set up your lab environment to fit your time zone and the app you will be working in.



- [ ] 1. Navigate to **User Menu** > **Account Settings**.
- [ ] 2. In the **Full name** box, enter your name: `<Firstname Lastname>`
  For example: Mitch Fleischman
- [ ] 3. Click **Save** and reload your browser.
- [ ] 4. Navigate to **User Menu > Preferences.**
- [ ] 5. Enter the following settings:
  - Time zone: `<your local time zone>`
  - Default application: Dynamic Dashboards
- [ ] 6. Click **Apply**.
- [ ] 7. Navigate to the Dynamic Dashboards course app.

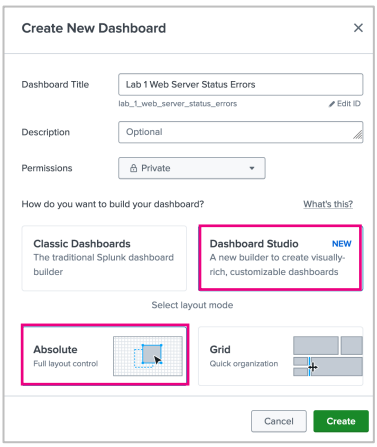
NOTE: Since your default application is now Dynamic Dashboards, clicking the Splunk logo in the upper left is the same as navigating to Apps > Dynamic Dashboards.

Task 2: Create a dashboard.

- [ ] 8. Click the **Dashboards** tab.
- [ ] 9. Click **Create New Dashboard**.
- [ ] 10. In the Dashboard Title box enter:

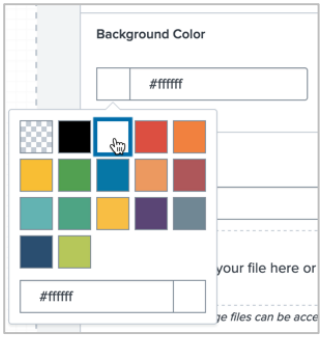
```
Lab 1 Web Server Status Errors
```

- [ ] 11. Click **Dashboard Studio**.
- [ ] 12. Select **Absolute** layout mode.
- [ ] 13. Click **Create**.



Task 3: Configure the canvas.

- [ ] 14. On the Configuration side panel, under Display mode, set Canvas width to `1200` and Canvas height to `400`.
- [ ] 15. Under Background color, click the **grey color square** and select **White (#ffffff)**.



Task 4: Add Markdown Text.

- [ ] 16. Click the **Add Markdown Text** button.

- [ ] 17. On the Configuration side panel, in the Markdown content box enter:

```
### Welcome $env:user_realname$
You are logged in as: $env:user$

The current app is: $env:app$

You are using Splunk: $env:product$, $env:version$
```

- [ ] 18. Locate the Position & Size section, make sure the X Position is `0` and Y Position is `0`.
- [ ] 19. Set the markdown box width to `330` and height to `110`.
- [ ] 20. Click **Save**.

Task 4: Add a column chart.

- [ ] 21. Click the **Add Chart** button and select **Column**.
- [ ] 22. In the Select Data side panel click **Create Search.**
- [ ] 23. In the Data source name box enter: `Server Status Errors`
- [ ] 24. Select **Access search results or metadata**.
- [ ] 25. In SPL query box enter:

```
index=cafegames sourcetype=access_combined_cg
status>300 | chart count by host status useother=f
```

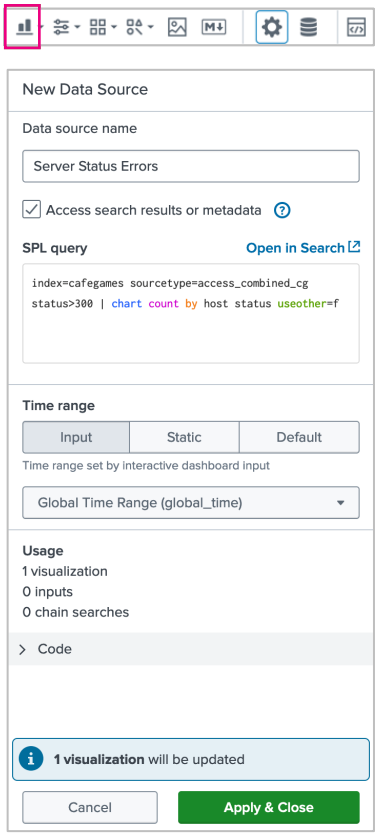
- [ ] 26. In the Time range section click **Input**.
- [ ] 27. Click **Apply & Close**.
- [ ] 28. Click **Save**.
- [ ] 29. On the Configuration side panel, in the Title box enter:

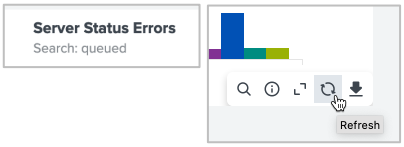
```
Server Status Errors
```

- [ ] 30. In the Description box enter:

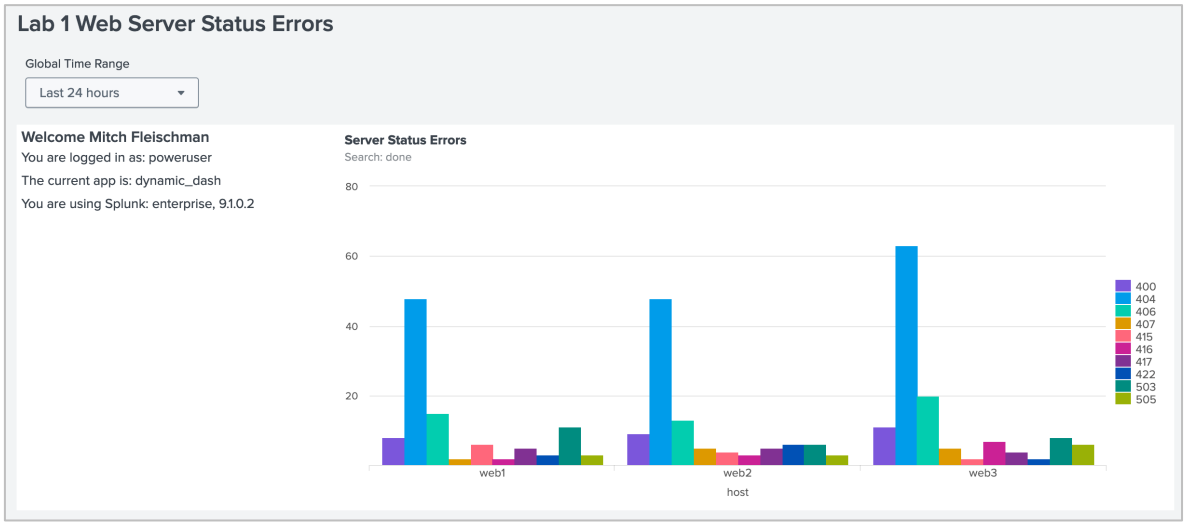
```
Search: $Server Status Errors:job.status$
```

- [ ] 31. Locate the Position & size section and set the X position to `330` and Y position to `0`.
- [ ] 32. Set the chart width to `870` and height to `400`.
- [ ] 33. Save the dashboard.
- [ ] 34. Click **View**.
- [ ] 35. Click the **Refresh button**.
- [ ] 36. Notice the search status changes from *queued* to *done*.





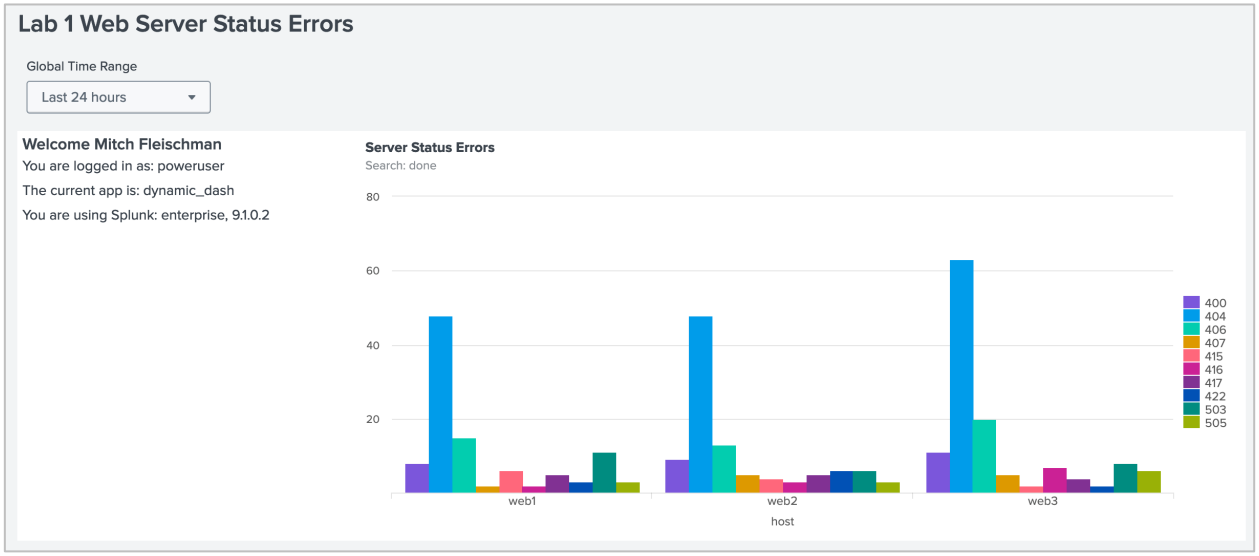
Example:



You completed Lab Exercise 1!

Highlights

- Created a dashboard from the Dashboards page
- Used an absolute layout.
- Set the canvas dimensions and background color.
- Added markdown text.
- Use predefined environment tokens to identify the current user, current app, and Splunk version.
- Added a column chart.
- Used predefined search tokens to capture the job status for a search.
- Set visualization position using X and Y coordinates.
- Set visualization height and width in pixels.



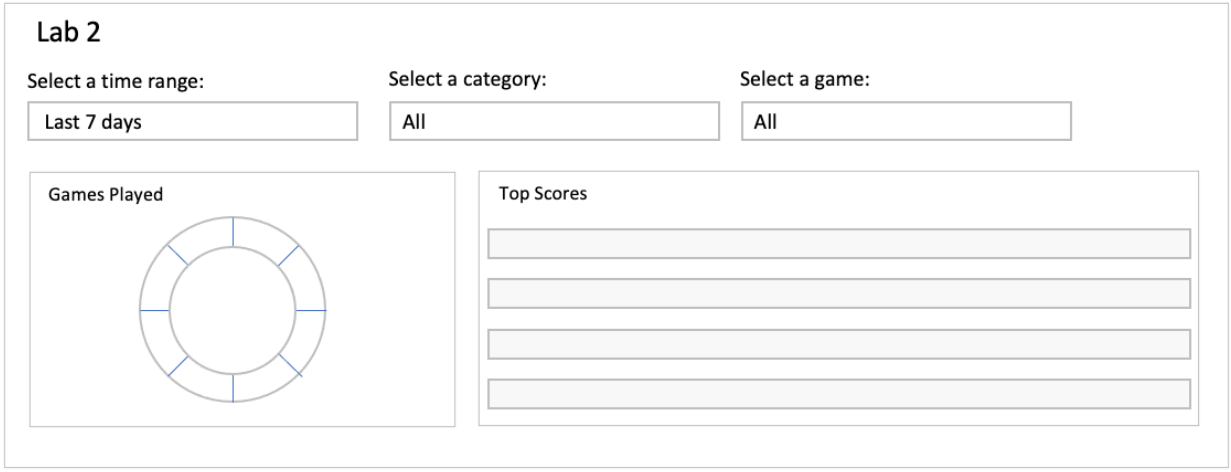
Lab Exercise 2 – Add Cascading Inputs

Description

In this exercise, you will create a dashboard, add inputs, and then make the inputs cascade.

IMPORTANT: Save the dashboards you create to the Dynamic Dashboards app with permissions set to Private. For steps that require adding text, consider typing it manually into the editor. Copying text from this PDF can add extra characters that cause errors in the dashboard source code.

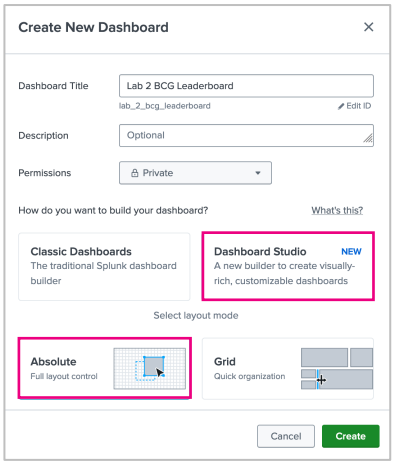
Wireframe:



Steps

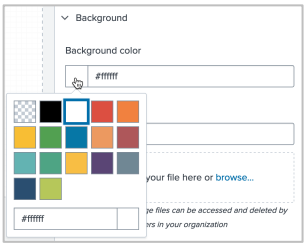
Task 1: Create a dashboard.

- [ ] 1. Click the **Dashboards** tab.
- [ ] 2. Click **Create New Dashboard**.
- [ ] 3. In the Dashboard Title box enter: `Lab 2 BCG Leaderboard`
- [ ] 4. Click **Dashboard Studio**.
- [ ] 5. Select **Absolute** layout mode.
- [ ] 6. Click **Create**.



Task 2: Configure the canvas.

- [ ] 7. In the Configuration side panel, locate the Canvas section.
- [ ] 8. Set the Canvas width to `1600` and height to `500`.
- [ ] 9. Locate the Background section.
- [ ] 10. Set the Background color, to **White (#ffffff)**.



Task 3: Set the default time range.

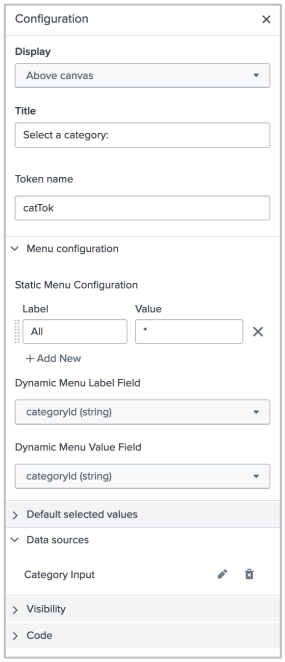
- [ ] 11. Click on the **Global Time Range input**.
- [ ] 12. On the Configuration side panel, in the Title box, enter: `Select a time range:`
- [ ] 13. In the Default Value drop-down menu, select **Last 7 days**.
- [ ] 14. Click **Save**.

Task 4: Add a dropdown input.

- [ ] 15. Click the **Add Inputs** button and select **Dropdown**.

- [ ] 16. In the Configuration side panel, in the Title box enter:

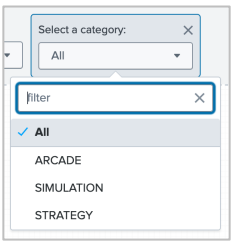
```
Select a category:
```



- [ ] 17. In the Token name box enter: `catTok`
- [ ] 18. Under Menu configuration, delete Item 1 and Item 2 by clicking the **X** beside each
- [ ] 19. Under Data sources, click **Set up Primary Data Source**
- [ ] 20. In the Select Data side panel click **Create Search.**
- [ ] 21. In the Data source name box enter: `Category Input`
- [ ] 22. In the SPL query box enter:

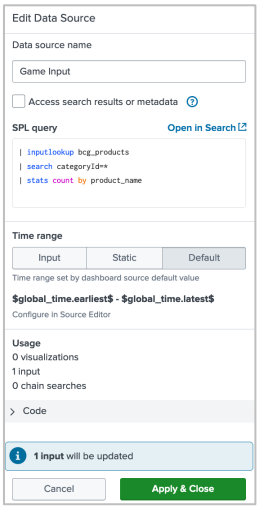
```
| inputlookup bcg_products
| search product_name=*
| stats count by categoryId
```

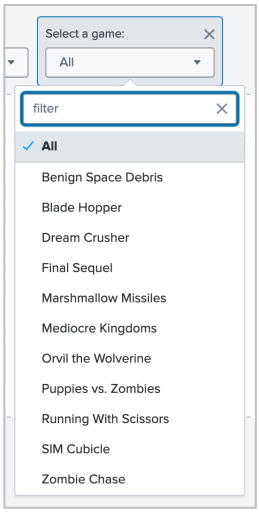
- [ ] 23. Under Time range click **Default**.
- [ ] 24. Click **Apply & Close**.
- [ ] 25. In the Dynamic Menu Label Field menu, select **categoryId (string).**
- [ ] 26. In the Dynamic Menu Value Field menu**,** select **categoryId (string).**
- [ ] 27. Test the input.
  Three categories, ARCADE, SIMULATION, and STRATEGY should be displayed.



- [ ] 28. Click **Save** and reload your browser.

Task 5: Add a second dropdown input.





- [ ] 29. Click the **Add Inputs button** and select **Dropdown**.
- [ ] 30. In the Title box enter: `Select a game:`
- [ ] 31. In the Token name box enter: `gameTok`
- [ ] 32. Under Menu configuration, delete Item 1 and Item 2 by clicking the **X** beside each.
- [ ] 33. Under Data Configurations, click **Set up Primary Data Source.**
- [ ] 34. In the Select Data side panel click **Create Search.**
- [ ] 35. In the Data source name box enter: `Game Input`
- [ ] 36. In the SPL query box enter:

```
| inputlookup bcg_products
| search categoryId=*
| stats count by product_name
```

- [ ] 37. In the Time range section click **Default**.
- [ ] 38. Click **Apply & Close**.
- [ ] 39. In the Dynamic Menu Label field menu, select **product_name (string).**
- [ ] 40. In the Dynamic Menu Value field menu, select **product_name (string).**
- [ ] 41. Click **Save**.
- [ ] 42. Test the input.

  Eleven games should display. If not, retrace your steps and look for missed steps and typos.

Task 6: Make the inputs cascade.

- [ ] 43. Click the **Data Overview** button.
- [ ] 44. Click the **pencil** button beside Category Input.
- [ ] 45. Revise the search to use the gameTok token:

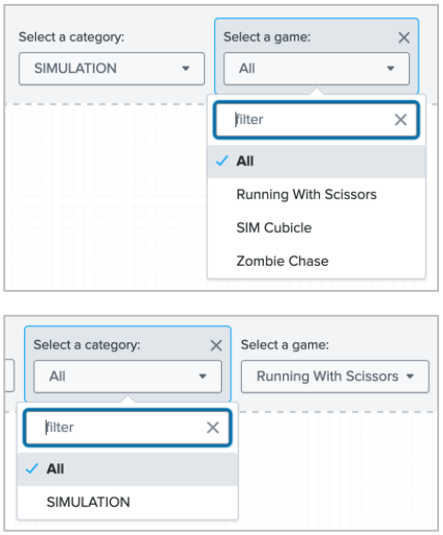
```
| inputlookup bcg_products
| search product_name=$gameTok|s$
| stats count by categoryId
```

NOTE: Make sure there is no space on either side of the pipe (|) for the token filter.

- [ ] 46. Click **Apply & Close**.
- [ ] 47. Click the **pencil** button beside Game Input.

☐ 48. Revise the search to use the catTok token:

```
| inputlookup bcg_products
| search categoryId=$catTok$
| stats count by product_name
```



☐ 49. Click **Apply & Close**.

☐ 50. Click **Save** and reload your browser.

☐ 51. Test the inputs.

- Select a category. The games list should automatically update to show only the games in the category selected.
- Select a game. The category list should automatically update to show only the category of the game selected.

Task 7: Add a pie chart.

☐ 52. Click the **Add Chart** button.

☐ 53. Select **Pie**.

☐ 54. On the Select Data side panel, click **Create Search**.

☐ 55. In the Data source name box, enter: `Games Played`

☐ 56. In the SPL query box enter:

```
index=cafegames sourcetype=access_combined_cg status=200 categoryId=$catTok$
product_name=$gameTok|s$ | stats count by product_name
```

☐ 57. In the Time Range section, select **Default.**

☐ 58. Click **Apply & Close**.

☐ 59. On the Configuration side panel, locate the Title box and enter: `Games Played`

☐ 60. Locate the Position & Size section and make sure the X position is `0` and Y position is `0`.

☐ 61. Locate the Position & Size section and set the pie chart Width to `560` and Height to `330`.

☐ 62. Locate the Data display section and set Display type to **Donut**.

☐ 63. Save the dashboard.

Task 8: Add a table.

☐ 64. Click the **Add Chart** button.

☐ 65. Select **Table**.

☐ 66. On the Select Data side panel, click **Create Search**.

☐ 67. In the Data source name box, enter: `Top Scores`

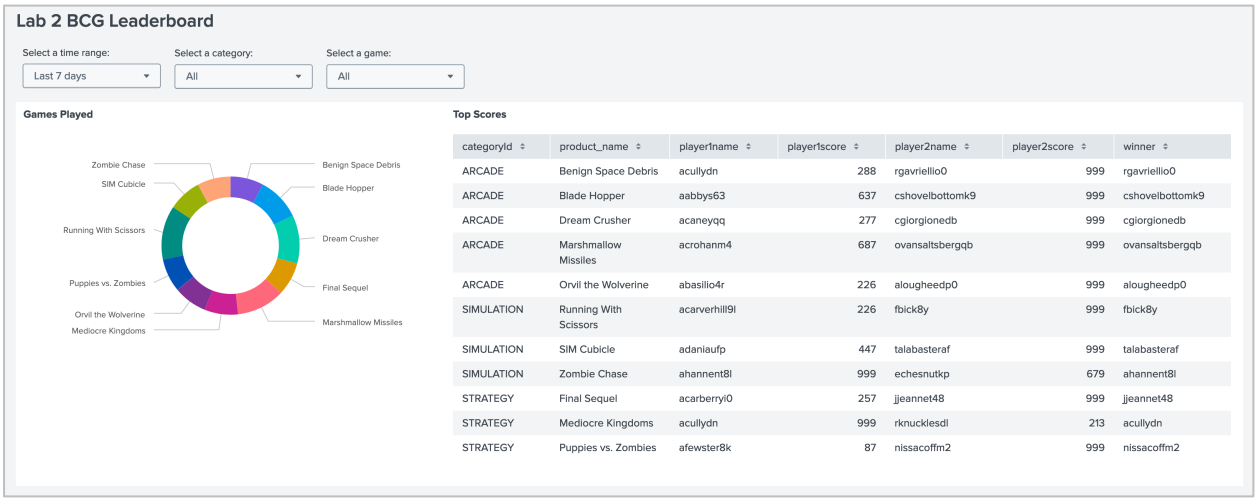
- [ ] 68. In the SPL query box enter:

```
index=cafegames sourcetype=access_combined_cg product_name=$gameTok|s$ categoryId IN ($catTok$)
status=200
| eval max_score=max(player1score, player2score)
| eval player = case(player1score > player2score, player1name, player2score > player1score,
player2name, true(), "tie")
| eval winner = case(player1score > player2score, player1name, player2score > player1score,
player2name, true(), "tie")
| stats max(max_score) as high_score by categoryId product_name, player1name, player1score,
player2name, player2score winner
| sort -high_score
| streamstats count by product_name
| where count <= 1
| table categoryId product_name, player1name, player1score, player2name, player2score winner
```

- [ ] 69. In the Time Range section, select **Default.**
- [ ] 70. Click **Apply & Close**.
- [ ] 71. On the Configuration side panel, in the Title box enter: `Top Scores`
- [ ] 72. Locate the Position & size section and set the X Position to `560` and Y Position to `0`.
- [ ] 73. Set the table Width to `1040` and Height to `500`.
- [ ] 74. Locate Global formatting and set Rows displayed to `11`.
- [ ] 75. Save the dashboard.
- [ ] 76. Click **View** and reload your browser.
- [ ] 77. Test the inputs. The chart and table should update with input changes. Both visualizations should update with time range, category, and game input changes.

  If the visualizations don't update, retrace your steps and search for typos.

Example:



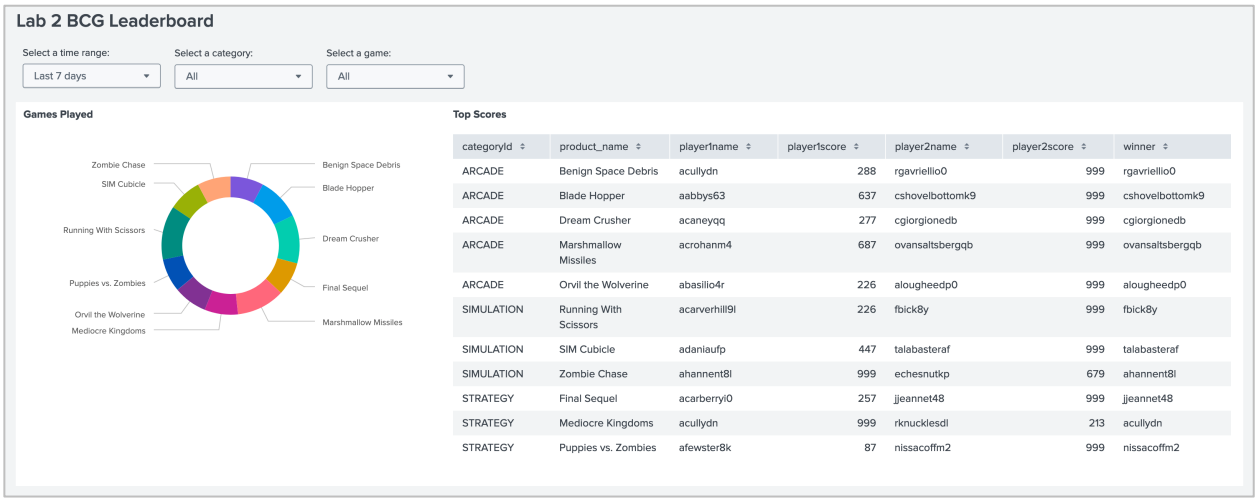
categoryId	product_name	player1name	player1score	player2name	player2score	winner
ARCADE	Benign Space Debris	acullydn	288	rgavriellio0	999	rgavriellio0
ARCADE	Blade Hopper	aabbys63	637	cshovelbottomk9	999	cshovelbottomk9
ARCADE	Dream Crusher	acaneyqq	277	cgiorgionedb	999	cgiorgionedb
ARCADE	Marshmallow Missiles	acrohanm4	687	ovansaltsbergqb	999	ovansaltsbergqb
ARCADE	Orvil the Wolverine	abasilio4r	226	alougheedp0	999	alougheedp0
SIMULATION	Running With Scissors	acarverhill9l	226	fbick8y	999	fbick8y
SIMULATION	SIM Cubicle	adaniaufp	447	talabasteraf	999	talabasteraf
SIMULATION	Zombie Chase	ahannent8l	999	echesnutkp	679	ahannent8l
STRATEGY	Final Sequel	acarberryi0	257	jjeannet48	999	jjeannet48
STRATEGY	Mediocre Kingdoms	acullydn	999	rknucklesdl	213	acullydn
STRATEGY	Puppies vs. Zombies	afewster8k	87	nissacoffm2	999	nissacoffm2

Congratulations

You completed Lab Exercise 2!

Highlights

- Configured a time range input
- Added and configured dropdown inputs
- Created cascading inputs
- Added and formatted a donut chart
- Added and formatted a table



categoryId	product_name	player1name	player1score	player2name	player2score	winner
ARCADE	Benign Space Debris	acullydn	288	rgavriellio0	999	rgavriellio0
ARCADE	Blade Hopper	aabbys63	637	cshovelbottomk9	999	cshovelbottomk9
ARCADE	Dream Crusher	acaneyqq	277	cgiorgionedb	999	cgiorgionedb
ARCADE	Marshmallow Missiles	acrohanm4	687	ovansaltsbergqb	999	ovansaltsbergqb
ARCADE	Orvil the Wolverine	abasilio4r	226	alougheedp0	999	alougheedp0
SIMULATION	Running With Scissors	acarverhill9l	226	fbick8y	999	fbick8y
SIMULATION	SIM Cubicle	adaniaufp	447	talabasteraf	999	talabasteraf
SIMULATION	Zombie Chase	ahannent8l	999	echesnutkp	679	ahannent8l
STRATEGY	Final Sequel	acarberryi0	257	jjeannet48	999	jjeannet48
STRATEGY	Mediocre Kingdoms	acullydn	999	rknucklesdl	213	acullydn
STRATEGY	Puppies vs. Zombies	afewster8k	87	nissacoffm2	999	nissacoffm2

Lab Exercise 3 – Create a Dynamic Drilldown

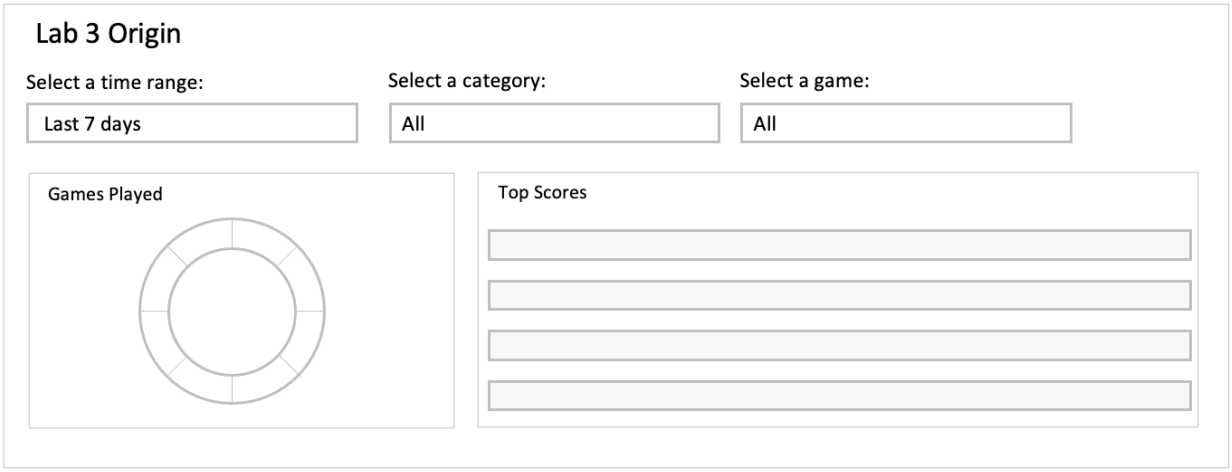
Description

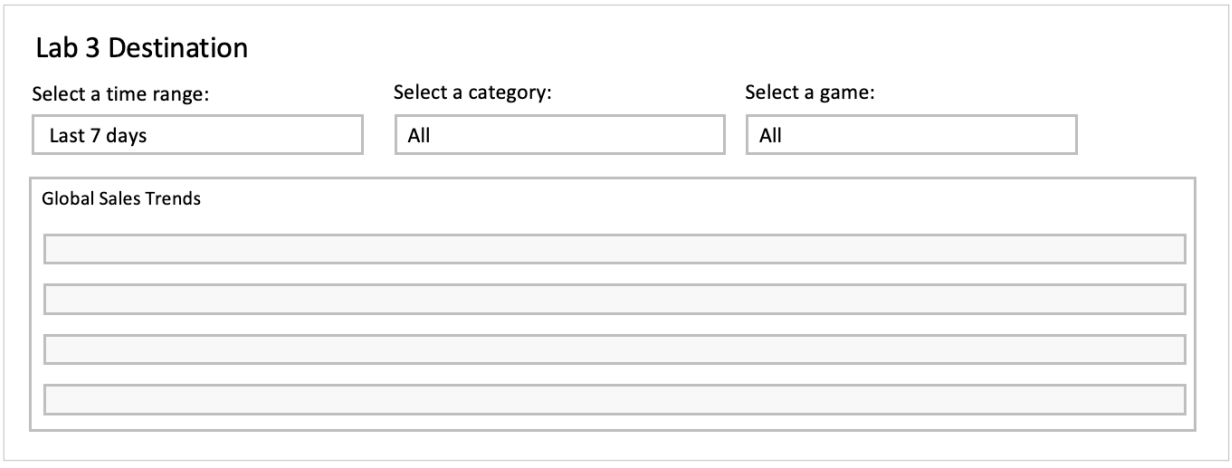
In this exercise you will create a drilldown destination form. Then, you will add a dynamic drilldown from the Games Played pie chart to the new form.

IMPORTANT: Save dashboards you create to the Dynamic Dashboards app with permissions set to Private. For steps that require adding text, consider typing it manually into the editor.

Copying text from this PDF can add extra characters that cause errors in the dashboard source code.

Wireframes:



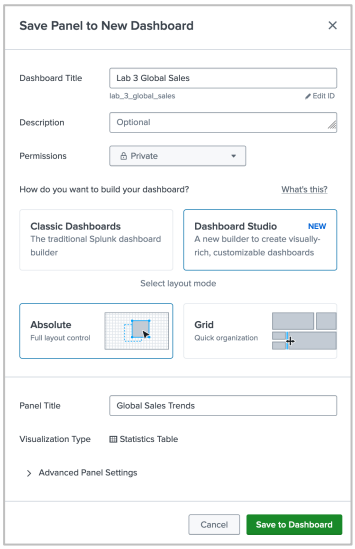


Task 1: Create a destination dashboard.

- [ ] 1. Navigate to the Dynamic Dashboards course app.
- [ ] 2. Search over the **last 7 days** for:

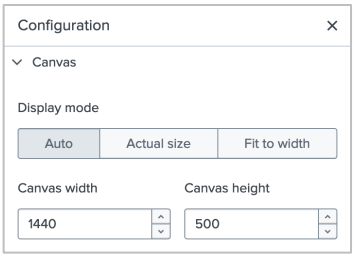
```
index=cafegames sourcetype=access_combined_cg
| iplocation clientip
| search Country=* product_name=*
| stats sparkline(count) as Trend by Country Region
| rename product_name AS Game
```

- [ ] 3. Select **Save As** > **New Dashboard**.
- [ ] 4. In the Dashboard Title box enter: `Lab 3 Global Sales`
- [ ] 5. Click **Dashboard Studio**.
- [ ] 6. Select **Absolute** layout mode.
- [ ] 7. In the Panel Title box enter: `Global Sales Trends`
- [ ] 8. Click **Save to Dashboard**.
- [ ] 9. Click **View Dashboard**.



Task 2: Configure the canvas.

- [ ] 10. Click **Edit**.
- [ ] 11. In the Configuration side panel, set the Canvas width to `1440` and Canvas height to `500`.



Task 3: Configure the data source.

- [ ] 12. Click on the **table**.
- [ ] 13. In the Configuration side panel, locate the Data sources section.
- [ ] 14. Click the **pencil icon** beside Global Sales Trends - Table search
- [ ] 15. In the SPL query box, revise the search for Country and product_name to use the appropriate tokens for each with a filter for quotes:

```
index=cafegames sourcetype=access_combined_cg
| iplocation clientip
| search Country=$countryTok|s$ product_name=$gameTok|s$
| stats sparkline(count) as Trend by Country Region
| rename product_name AS Game
```

- [ ] 16. In the Time Range section click **Default**.
- [ ] 17. Click **Apply & Close**.
- [ ] 18. Click **Save.**

NOTE: This visualization's search includes tokens and will not display results until all three inputs are defined. This is expected.

Task 4: Format the visualization.

- [ ] 19. In the Configuration side panel, locate the Position & size section.
- [ ] 20. Set the X Position to `0` and the Y Position to `0`.
- [ ] 21. Set the Width to `1440` and the Height to `500`.

Task 5: Set the default time range.

- [ ] 22. Click on the **Global Time Range input**.
- [ ] 23. On the Configuration side panel, in the Title box, enter: `Select a time range:`
- [ ] 24. In the Default Value drop-down menu, select **Last 7 days**.
- [ ] 25. Click **Save**.

Task 6: Add a dropdown input.

- [ ] 26. Click the **Add Inputs** button and select **Dropdown**.

- [ ] 27. In the Title box enter: `Select a country:`
- [ ] 28. In the **Token Name** box enter: `countryTok`
- [ ] 29. In the Menu Configuration section, delete Item 1 and Item 2 by clicking the **X** beside each.
- [ ] 30. In the Data sources section, click **Set up Primary Data Source**
- [ ] 31. In the Select Data side panel click **Create Search.**
- [ ] 32. In the Data Source Name box enter: `Country Input`
- [ ] 33. In the SPL query box enter:

```
| inputlookup bcg_countries
| stats count by Country
```

- [ ] 34. In the Time range section click **Input**.
- [ ] 35. Click **Apply & Close**.
- [ ] 36. In the Dynamic Menu Label Field menu, select **Country (string).**
- [ ] 37. In the Dynamic Menu Value Field menu, select **Country (string).**
- [ ] 38. Click **Save**.

Task 7: Add a second dropdown input.

- [ ] 39. Click the **Add Inputs button** and select **Dropdown**.

- [ ] 40. In the Title box enter: `Select a game:`
- [ ] 41. In the Token name box enter: `gameTok`
- [ ] 42. In the Menu configuration section, delete Item 1 and Item 2 by clicking the **X** beside each.
- [ ] 43. In the Data Configurations section, click **Set up Primary Data Source**
- [ ] 44. In the Select Data side panel click **Create Search.**
- [ ] 45. In the Data source name box enter: `Game Input`

☐ 46. In the SPL query box enter:

```
| inputlookup bcg_products
| stats count by product_name
```

☐ 47. In the Time Range section click **Input**.

☐ 49. Click **Apply & Close**.

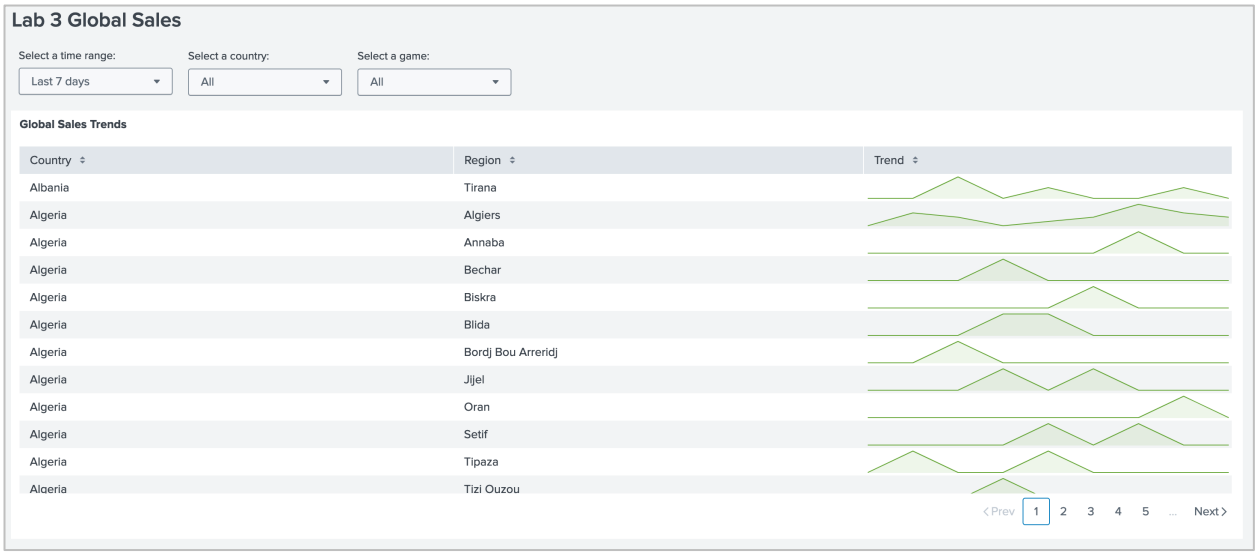
☐ 50. In the Dynamic Menu Label field menu, select **product_name (string).**

☐ 51. In the Dynamic Menu Value field menu, select **product_name (string).**

☐ 52. Click **Save**.

☐ 53. Click **View** and reload your browser.

Example:



Task 8: Clone a dashboard.

☐ 54. Click the **Dashboards** tab.

☐ 55. Locate the Lab 2 BCG Leaderboard dashboard.

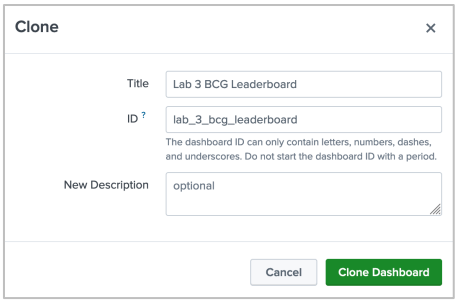
☐ 56. In the Actions menu, select **Clone**.
The Clone window appears.

☐ 57. In the Title box enter the following:

```
Lab 3 BCG Leaderboard
```

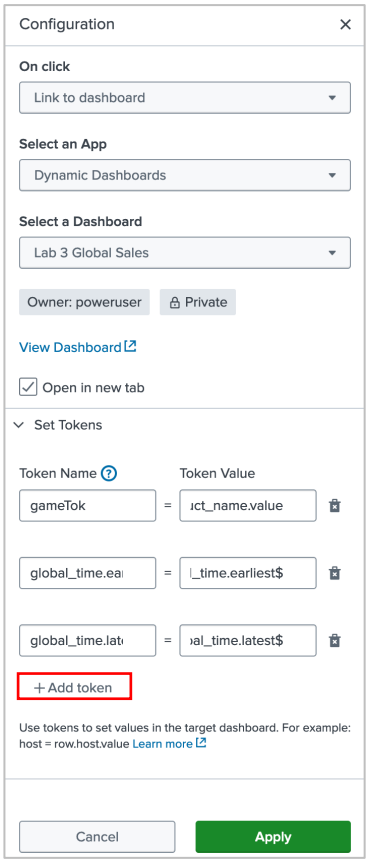
☐ 58. Click **Clone Dashboard**.
The Dashboard has been cloned window appears.

☐ 59. Click **Edit**.



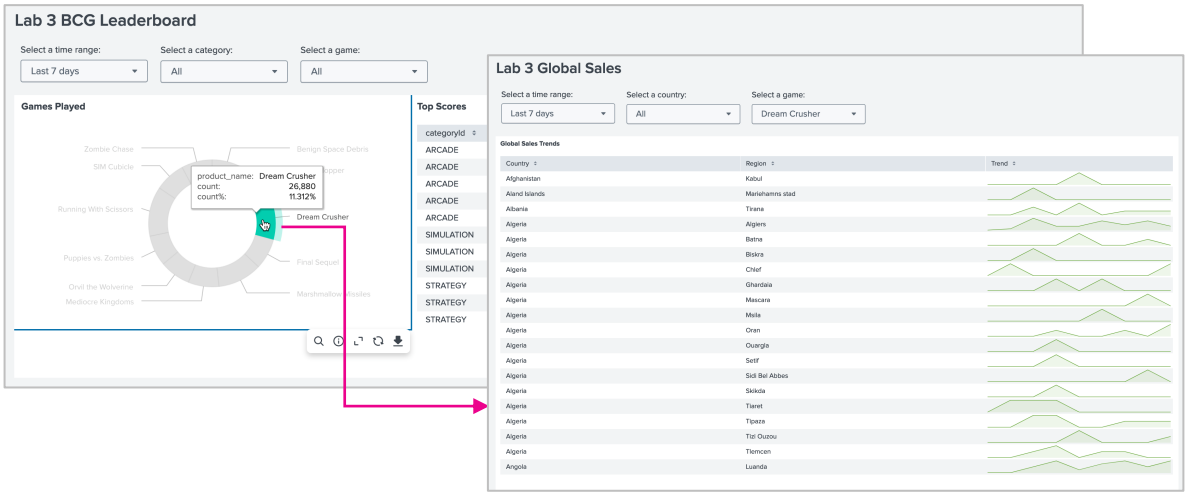
Task 9: Add a drilldown.

- [ ] 60. Select the pie chart.
- [ ] 61. In the Configuration side panel, locate the Interactions section and click **Add Interaction**.
- [ ] 62. In the On click menu, select **Link to dashboard**.
- [ ] 63. In the Select an App menu, select **Dynamic Dashboards**.
- [ ] 64. In the Select a Dashboard menu, select **Lab 3 Global Sales**.
- [ ] 65. Select the box Open in new tab.
- [ ] 66. Click **Set Tokens**.
- [ ] 67. Click in the Token Name box and select: gameTok
- [ ] 68. In the Token Value box enter: `row.product_name.value`
- [ ] 69. Click **+Add Token**.
- [ ] 70. Click in the Token Name box and select: global_time.earliest
- [ ] 71. In the Token Value box enter: `$global_time.earliest$`
- [ ] 72. Click **+Add Token**.
- [ ] 73. Click in the Token Name box and select: global_time.latest
- [ ] 74. In the Token Value box enter: `$global_time.latest$`
- [ ] 75. Click **Apply**.
- [ ] 76. Click **Save**.
- [ ] 77. Click **View** and reload your browser.
- [ ] 78. Test the drilldown.



- On the BCG Leaderboard, click one of the pie slices. The view should switch to Global Vendor Sales with the game input populated with the name of the game (pie slice) you clicked on. If not, retrace your steps and look for missed steps and typos.

Example:

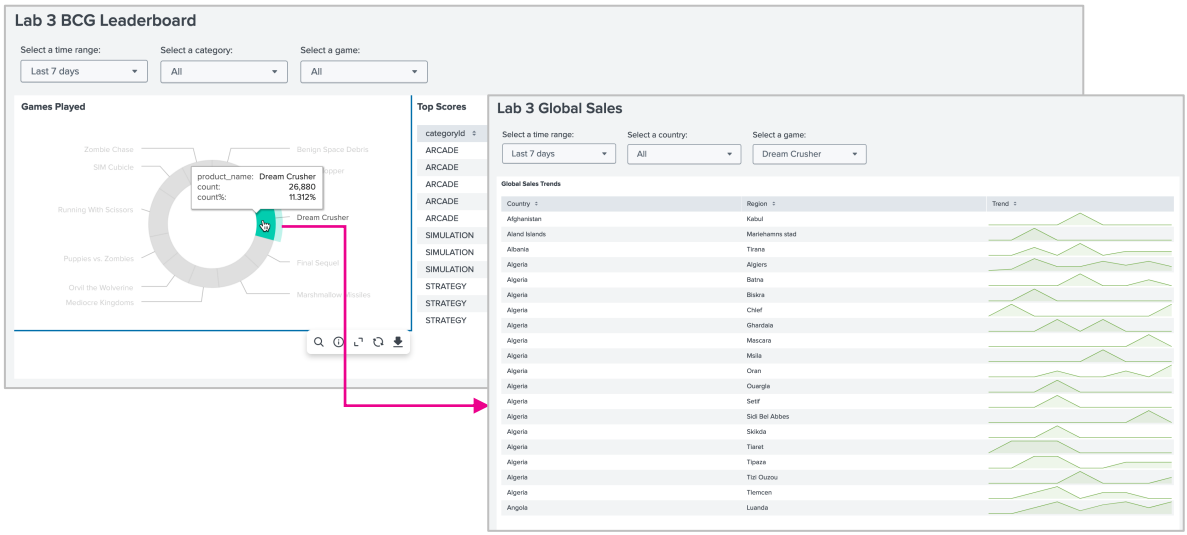


Congratulations

You completed Lab Exercise 3!

Highlights

- Created a dashboard from a search
- Revised an existing data source
- Cloned a dashboard
- Added a drilldown to a chart that passes three tokens to a different dashboard



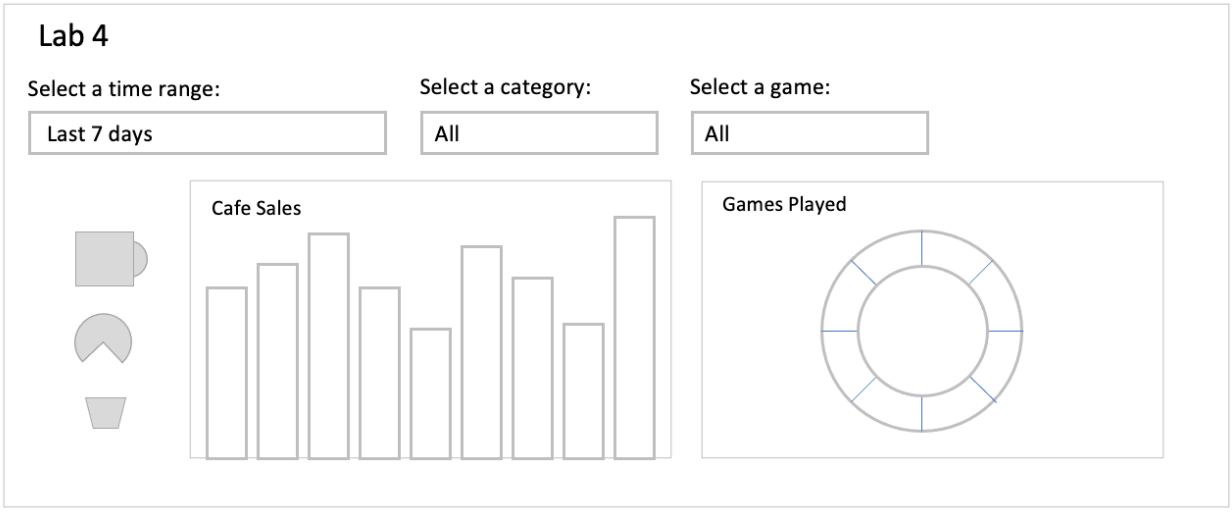
Lab Exercise 4 – Add Dynamic Coloring

Description

In this lab exercise you will clone a dashboard, delete a visualization, customize a visualization, add icons and dynamic coloring.

IMPORTANT: Save dashboards you create to the Dynamic Dashboards app with permissions set to Private. For steps that require adding text, consider typing it manually into the editor. Copying text from this PDF can add extra characters that cause errors in the dashboard source code.

Wireframe:

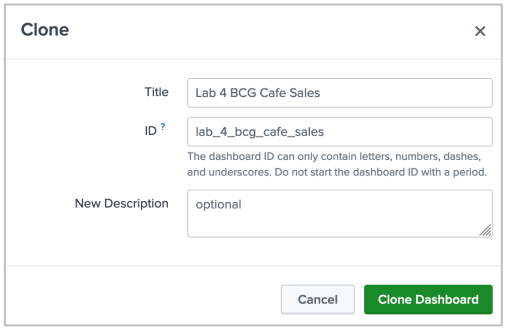


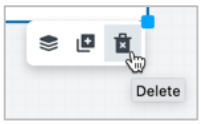
Steps

Task 1: Clone a dashboard.

- [ ] 1. Click the **Dashboards** tab.
- [ ] 2. Locate the Lab 2 BCG Leaderboard dashboard.
- [ ] 3. In the Actions menu, select **Clone**.
  The Clone window appears.
- [ ] 4. In the Title box enter:

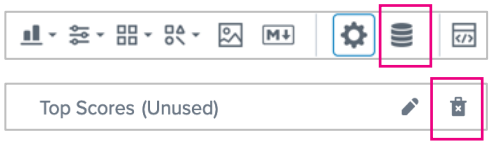
  `Lab 4 BCG Cafe Sales`
- [ ] 5. Click **Clone Dashboard**.
  The Dashboard has been cloned window appears.
- [ ] 6. Click **Edit**.
- [ ] 7. Click on the **Top Scores table**.
- [ ] 8. In the Actions menu, click the **trashcan icon**.





- [ ] 9. In the Configuration side panel, set the Canvas width to `1300` and Canvas height to `400`.

Task 2: Revise data sources.



- [ ] 10. Click the **Data Overview** button.
- [ ] 11. Click the **trash can icon** beside Top Scores (unused).
- [ ] 12. Click the **pencil icon** beside Category Input.
- [ ] 13. In the SPL query box, replace the search with:

```
| inputlookup bcg_cafefood
| stats count by categoryId
```

- [ ] 14. Click **Apply & Close.**
- [ ] 15. Click the **pencil icon** beside Game Input.
- [ ] 16. In the SPL query box, delete the search for categoryId values:

```
| inputlookup bcg_products
| search categoryId=$catTok$
| stats count by product_name
```

- [ ] 17. Click **Apply & Close.**
- [ ] 18. Click the **pencil icon** beside Games Played.
- [ ] 19. In the SPL query box, delete the search for categoryId values:

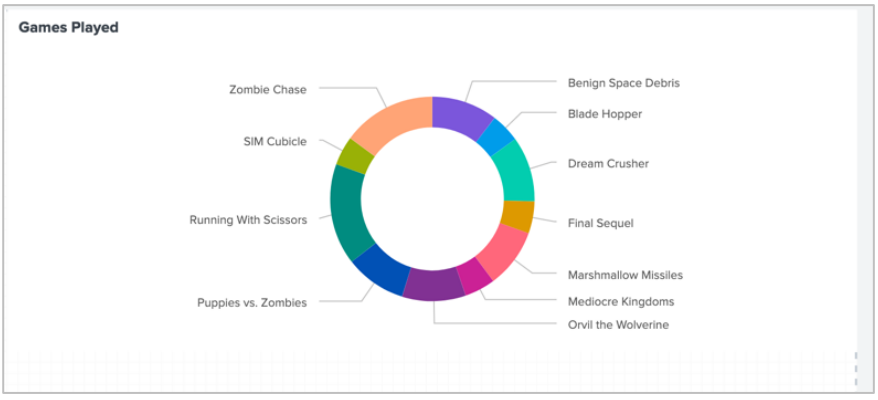
```
index=cafegames sourcetype=access_combined_cg status=200 categoryId=$catTok$
product_name=$gameTok|s$ | stats count by product_name
```

- [ ] 20. Click **Apply & Close**.

Task 3: Revise the pie chart.

- [ ] 21. Click on the **pie chart**.
- [ ] 22. On the Configuration side panel, locate the Position & size section.
- [ ] 23. Set the X position to `730` and Y position to `0`.
- [ ] 24. Set the Width to `610` and the Height to `400`**.**
- [ ] 25. Click **Save**.

Example:

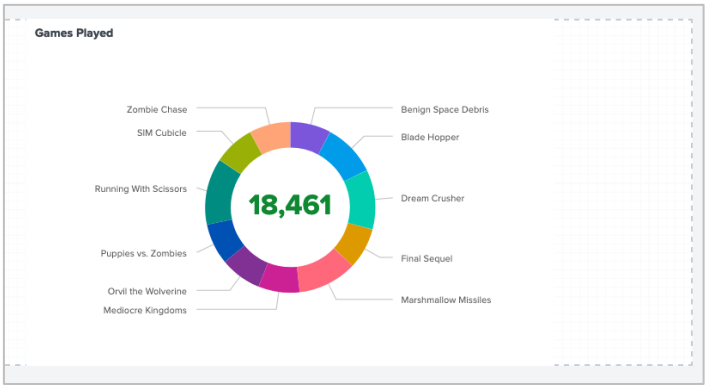


Task 4: Add a single-value visualization.

- [ ] 26. Click the **Add Chart** button.
- [ ] 27. Select **Single Value**.
- [ ] 28. In the Select Data side panel, select **Games Played**.
- [ ] 29. In the Configuration side panel, locate the Position & size section and set the X Position to `970` and the Y Position to `170`.
- [ ] 30. Set the Width to `130` and the Height to `100`.
- [ ] 31. Locate the Major value & trend section and in the Trend display menu select **Off**.
- [ ] 32. Locate the Sparkline section and in the Sparkline display menu select **Off**.
- [ ] 33. Locate the Coloring section and in the Dynamic elements menu, select **Major Value.**
- [ ] 34. Click the **Static background** color square and select **Transparent**.

- [ ] 35. Click **Save**.

Example:



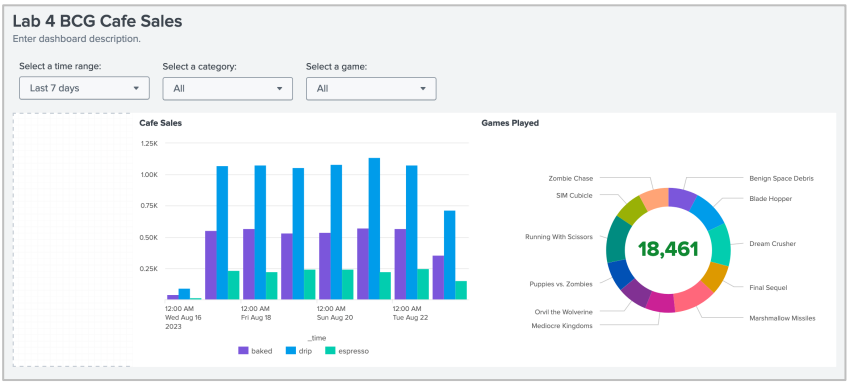
Task 7: Add a Column Chart.

- [ ] 36. Click the **Add Chart** button.
- [ ] 37. Select **Column**.
- [ ] 38. On the Select Data side panel, click **Create Search**.
- [ ] 39. In the Data source name box, enter: `Cafe Sales`
- [ ] 40. In the SPL query box enter:

```
index=cafefood sourcetype=access_combined_cf action=purchase status=200
categoryId=$catTok$ | timechart count by categoryId
```

- [ ] 41. Click **Apply & Close**.
- [ ] 42. In the Configuration side panel, in the Title box enter: `Cafe Sales`
- [ ] 43. Locate the Position & size section and set the X position to `190` and the Y position to `0`.
- [ ] 44. Set the Width to `540` and the Height to `400`.
- [ ] 45. Locate the Legend section and in the Position menu, select **Bottom**.
- [ ] 46. Click **Save**.

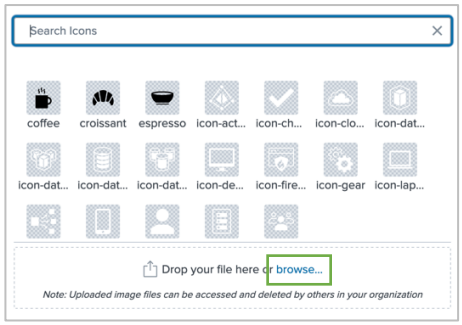
Example:



Task 8: Add Icons.

- [ ] 47. Click the **Add Icon** button. 
- [ ] 48. Click **Browse** and locate the three SVG files supplied at the lab downloads link.
- [ ] 49. Select all three and click **Open**.
- [ ] 50. Click on **each of the new icons** to add it to the dashboard.

Example:



Task 9: Configure the coffee icon.

- [ ] 51. Click on the **coffee icon**.
- [ ] 52. In the Configuration side panel, locate the Position & size section.
- [ ] 53. Set the X Position to `50` and the Y Position to `20`.
- [ ] 54. Set the Width to `100` and the Height to `100`.
- [ ] 55. Locate the Coloring section and in the Dynamic elements menu select **Icon**.
- [ ] 56. Locate the Data sources section and click **Set up Primary Data Source**.
- [ ] 57. Click **Create Search**.
- [ ] 58. In the Data source name box enter: `Coffee Icon`
- [ ] 59. In the SPL query box enter:

```
index=cafefood sourcetype=access_combined_cf action=purchase status=200
categoryId=drip | stats count
```

- [ ] 60. Click **Apply & Close**.

Task 10: Configure the croissant icon.

- [ ] 61. Click on the **croissant icon**.
- [ ] 62. In the Configuration side panel, locate the Position & size section.
- [ ] 63. Set the X position to `40` and the Y position to `165`.
- [ ] 64. Set the Width to `100` and the Height to `100`.
- [ ] 65. Locate the Coloring section and in the Dynamic elements menu select **Icon**.
- [ ] 66. Locate the Data sources section and click **Set up Primary Data Source**.
- [ ] 67. Click **Create Search**.
- [ ] 68. In the Data Source name box enter: `Baked Icon`
- [ ] 69. In the SPL query box enter:

```
index=cafefood sourcetype=access_combined_cf action=purchase status=200
categoryId=baked | stats count
```

- [ ] 70. Click **Apply & Close**.

Task 11: Configure the espresso icon.

- [ ] 71. Click on the **espresso icon**.
- [ ] 72. In the Configuration side panel, locate the Position & size section.
- [ ] 73. Set the X position to `65` and the Y position to `295`.
- [ ] 74. Set the Width to `50` and the Height to `80`.
- [ ] 75. Locate the Coloring section and in the Dynamic elements menu select **Icon**.
- [ ] 76. Locate the Data sources section and click **Set up Primary Data Source**.
- [ ] 77. Click **Create Search**.
- [ ] 78. In the Data Source name box enter: `Espresso Icon`
- [ ] 79. In the SPL query box enter:

```
index=cafefood sourcetype=access_combined_cf action=purchase status=200
categoryId=espresso | stats count
```

- [ ] 80. Click **Apply & Close**.
- [ ] 81. Click **Save**.
- [ ] 82. Click **View** and reload your browser.
- [ ] 83. Test the dashboard.
    - Select a different time range
    - Select a different game
    - Select a different cafe sale category

    If the visualizations do not update, retrace your steps, and look for typos.

Congratulations

You completed Lab Exercise 4!

Highlights

- Used visualization action menu to delete a visualization
- Deleted unused data sources
- Layered visualizations
- Added and formatted icons (SVGs)
- Added dynamic coloring to icons