Splunk Fundamentals 1 Lab Exercises

Lab typographical conventions:

[sourcetype=db_audit] OR [cs_mime_type] indicates either a source type or the name of a field.

NOTE: Lab work will be done on your personal computer or virtual machine, no lab environment is provided. We suggest you **DO NOT** do the lab work on your production environment.

The lab instructions refer to these source types by the types of data they represent:

Type	Sourcetype	Fields of interest
Web Application	`access_combined_wcookie`	`action, bytes, categoryId, clientip, itemId, JSESSIONID, productId, referer, referer_domain, status, useragent, file`
Database	`db_audit`	`Command, Duration, Type`
Web server	`linux_secure`	`COMMAND, PWD, pid, process`

Lab Module 11 – Using Pivot

NOTE: This lab document has two sections. The first section includes the instructions without answers. The second section includes instructions with the expected search string (answer) in red.

Description

In this lab, you will be building a report using the Pivot interface.

Steps

Scenario: The CFO loved the simple dashboard you created, but would like to add a report of where our customers are coming from. She would like to know what items users added to the shopping cart, and where those users originated from.

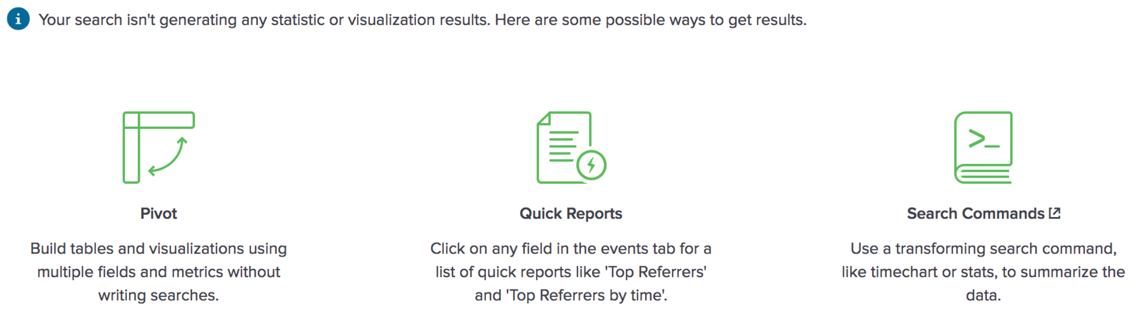
Task 1: Use a non-transforming command with instant Pivot.

1. Navigate to the Search view. (If you are in the **Home** app, click **Search & Reporting** from the column on the left side of the screen. You can also access the Search view by clicking the **Search** menu option on the green bar at the top of the screen.)

NOTE: For this course, you will be searching across all time using the main index. This is NOT a best practice in a production environment, but needed for these labs due to the nature of the limited dataset.

2. Enter in a search that returns all web application events for all time.
3. Click on the **Visualization** tab to see three icons: Pivot, Quick Reports, and Search Command.

Example:



Your search isn't generating any statistic or visualization results. Here are some possible ways to get results.

Pivot

Build tables and visualizations using multiple fields and metrics without writing searches.

Quick Reports

Click on any field in the events tab for a list of quick reports like 'Top Referrers' and 'Top Referrers by time'.

Search Commands

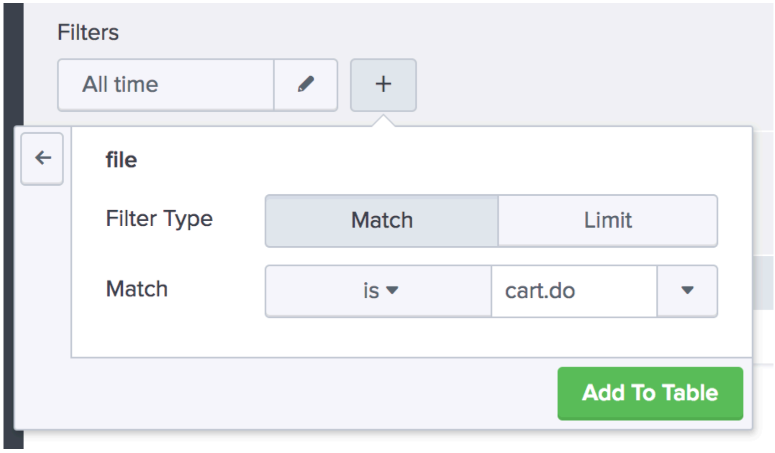
Use a transforming search command, like timechart or stats, to summarize the data.

4. Click on the **Pivot** icon.
5. In the modal window, select to show **All Fields** and click **OK**.

Task 2: Build a report using the Pivot interface.

6. Under **Filters**, click +, to open the filter selector, and select **file** from the **Fields list**.
7. Select **cart.do** from the match menu and click **Add To Table**.

Example:



Filters

All time

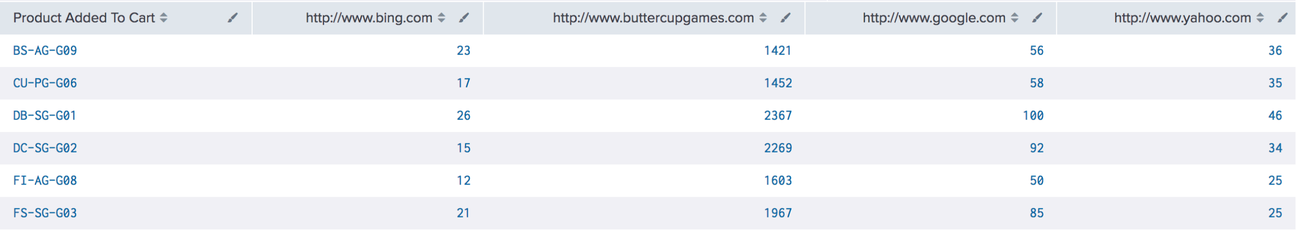
file

Filter Type: Match | Limit

Match: is cart.do

8. Under **Split Rows**, click +, to open the split rows selector, and then click **productID**.
9. For the **Label**, enter `Product Added To Cart`.
10. Keep other settings at their default values, and click **Add To Table**.
11. Under **Split Columns**, click + to open the split columns selector, and then click **referrer_domain**.
12. Keep other settings at their default values, and click **Add To Table**.
13. Notice that a large amount of the web traffic is coming from the buttercupgames.com domain. We will want to filter these out.

Example Results:

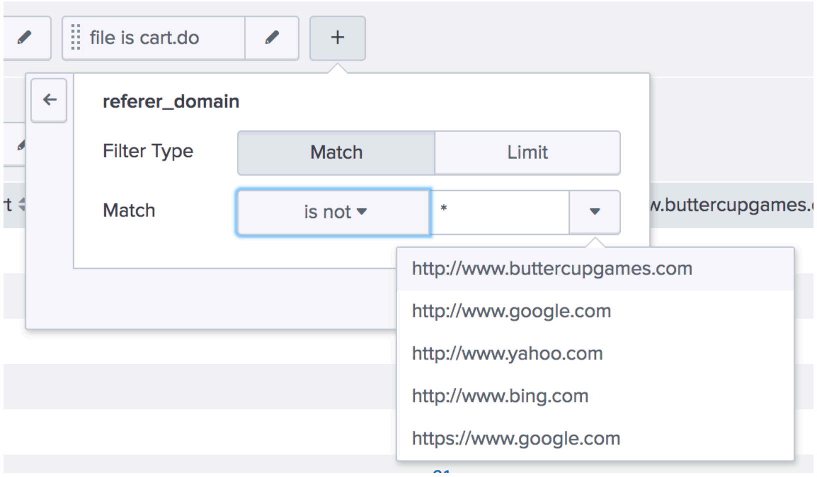


Product Added To Cart	http://www.bing.com	http://www.buttercupgames.com	http://www.google.com	http://www.yahoo.com
BS-AG-G09	23	1421	56	36
CU-PG-G06	17	1452	58	35
DB-SG-G01	26	2367	100	46
DC-SG-G02	15	2269	92	34
FI-AG-G08	12	1603	50	25
FS-SG-G03	21	1967	85	25

14. Under **Filters**, click +, to open the filter selector, and select **referrer_domain** from the **Fields list**.

15. Select **is not** and http://www.buttercupgames.com from the match menu.

Example:



file is cart.do

+

referer_domain

Filter Type: Match | Limit

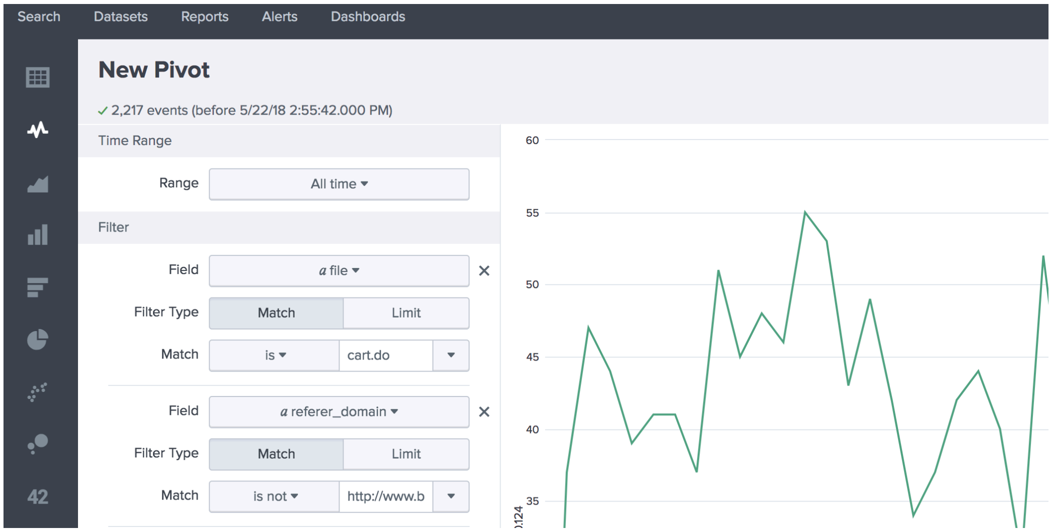
Match: is not ▾ | * ▾

- http://www.buttercupgames.com
- http://www.google.com
- http://www.yahoo.com
- http://www.bing.com
- https://www.google.com

16. Click **Add To Table**.

17. Use the black sidebar to select the **Line Chart** visualization.

Example:



New Pivot

✓ 2,217 events (before 5/22/18 2:55:42.000 PM)

Time Range

Range: All time ▾

Filter

Field: a file ▾ ✕

Filter Type: Match | Limit

Match: is ▾ | cart.do ▾

Field: a referer_domain ▾ ✕

Filter Type: Match | Limit

Match: is not ▾ | http://www.b ▾

Task 3: Add a panel to a dashboard from a pivot, and create a Data Model.

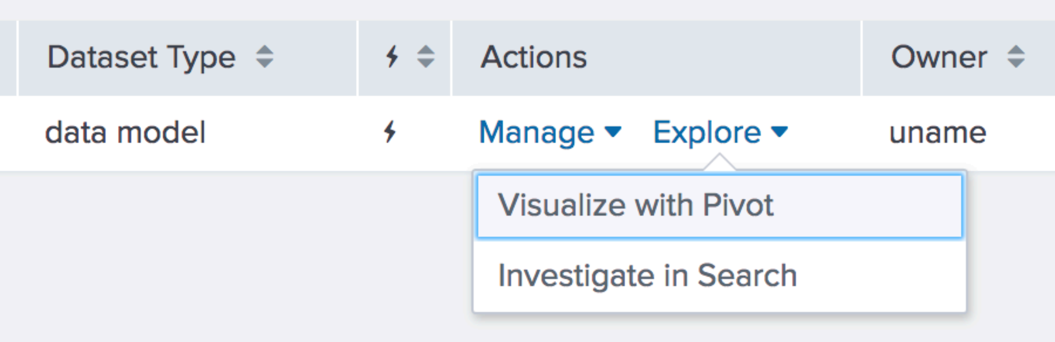
18. Use the **Save As** menu to select **Dashboard Panel.**

19. Notice that there are form fields for **Model Title** and **Model ID**. Pivot reports require a data model. Since you used Instant Pivot from the **Visualization** tab, there is currently not a data model for this report. Saving the report will create a new data model from the original search.
20. Save the dashboard with these values:

Dashboard:	*Existing*
Dashboard Title:	*Sales Dashboard*
Panel Title**:**	*Sales By Referral Domain*
Model Title:	Web Application Dataset
Model ID:	web_app_ds

21. Click **View Dashboard** to view the dashboard.
22. Click the **Datasets** menu option on the bar at the top of the screen.
23. Click **Yours** on the filter toolbar to show only your Datasets.
24. Select **Explore** from the actions menu and click **Visualize with Pivot**.

Example:



Dataset Type ⇕	⚡ ⇕	Actions	Owner ⇕
data model	⚡	Manage ▾ Explore ▾	uname

25. Use the **Filter** and **Split** tools to explore your data in the pivot interface.

Splunk Fundamentals 1 Lab Exercises

Lab typographical conventions:

[`sourcetype=db_audit`] OR [`cs_mime_type`] indicates either a source type or the name of a field.

NOTE: Lab work will be done on your personal computer or virtual machine, no lab environment is provided. We suggest you **DO NOT** do the lab work on your production environment.

The lab instructions refer to these source types by the types of data they represent:

Type	Sourcetype	Fields of interest
Web Application	`access_combined_wcookie`	`action, bytes, categoryId, clientip, itemId, JSESSIONID, productId, referer, referer_domain, status, useragent, file`
Database	`db_audit`	`Command, Duration, Type`
Web server	`linux_secure`	`COMMAND, PWD, pid, process`

Lab Module 11 – Using Pivot with Solutions

NOTE: This lab document has two sections. The first section includes the instructions without answers. The second section includes instructions with the expected search string (answer) in red.

Description

In this lab, you will be building a report using the Pivot interface.

Steps

Scenario: The CFO loved the simple dashboard you created, but would like to add a report of where our customers are coming from. She would like to know what items users added to the shopping cart, and where those users originated from.

Task 1: Use a non-transforming command with instant Pivot.

1. Navigate to the Search view. (If you are in the **Home** app, click **Search & Reporting** from the column on the left side of the screen. You can also access the Search view by clicking the **Search** menu option on the green bar at the top of the screen.)

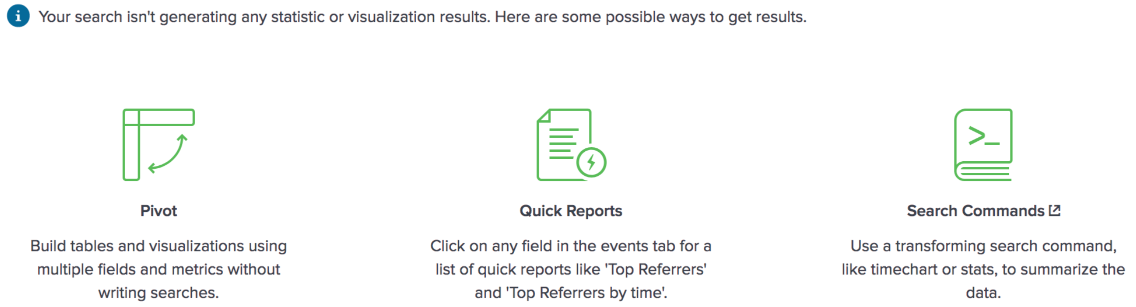
NOTE: For this course, you will be searching across all time using the main index. This is NOT a best practice in a production environment, but needed for these labs due to the nature of the limited dataset.

2. Enter in a search that returns all web application events for all time.

   (index=main sourcetype=access_combined_wcookie)

3. Click on the **Visualization** tab to see three icons: Pivot, Quick Reports, and Search Command.

Example:



Your search isn't generating any statistic or visualization results. Here are some possible ways to get results.

Pivot

Build tables and visualizations using multiple fields and metrics without writing searches.

Quick Reports

Click on any field in the events tab for a list of quick reports like 'Top Referrers' and 'Top Referrers by time'.

Search Commands

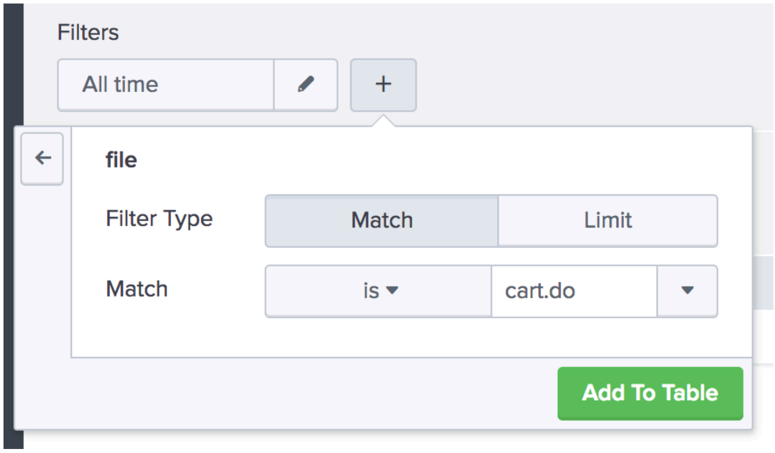
Use a transforming search command, like timechart or stats, to summarize the data.

4. Click on the **Pivot** icon.
5. In the modal window, select to show **All Fields** and click **OK**.

Task 2: Build a report using the Pivot interface.

6. Under **Filters**, click +, to open the filter selector, and select **file** from the **Fields list**.
7. Select **cart.do** from the match menu and click **Add To Table**.

Example:



Filters

All time

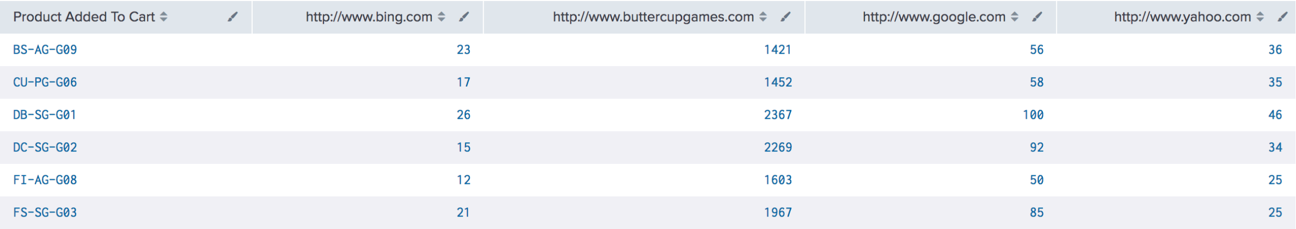
file

Filter Type: Match | Limit

Match: is cart.do

8. Under **Split Rows**, click +, to open the split rows selector, and then click **productID**.
9. For the **Label**, enter `Product Added To Cart`.
10. Keep other settings at their default values, and click **Add To Table**.
11. Under **Split Columns**, click + to open the split columns selector, and then click **referrer_domain**.
12. Keep other settings at their default values, and click **Add To Table**.
13. Notice that a large amount of the web traffic is coming from the buttercupgames.com domain. We will want to filter these out.

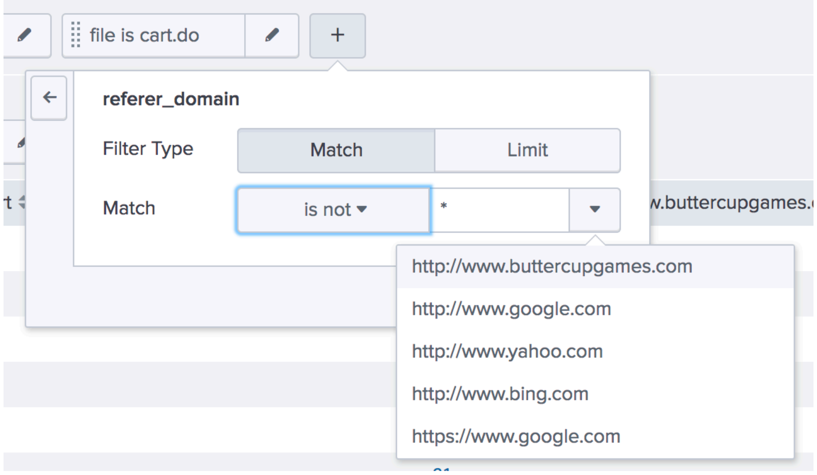
Example Results:



Product Added To Cart	http://www.bing.com	http://www.buttercupgames.com	http://www.google.com	http://www.yahoo.com
BS-AG-G09	23	1421	56	36
CU-PG-G06	17	1452	58	35
DB-SG-G01	26	2367	100	46
DC-SG-G02	15	2269	92	34
FI-AG-G08	12	1603	50	25
FS-SG-G03	21	1967	85	25

14. Under **Filters**, click +, to open the filter selector, and select **referrer_domain** from the **Fields list**.
15. Select **is not** and http://www.buttercupgames.com from the match menu.

Example:



file is cart.do

referer_domain

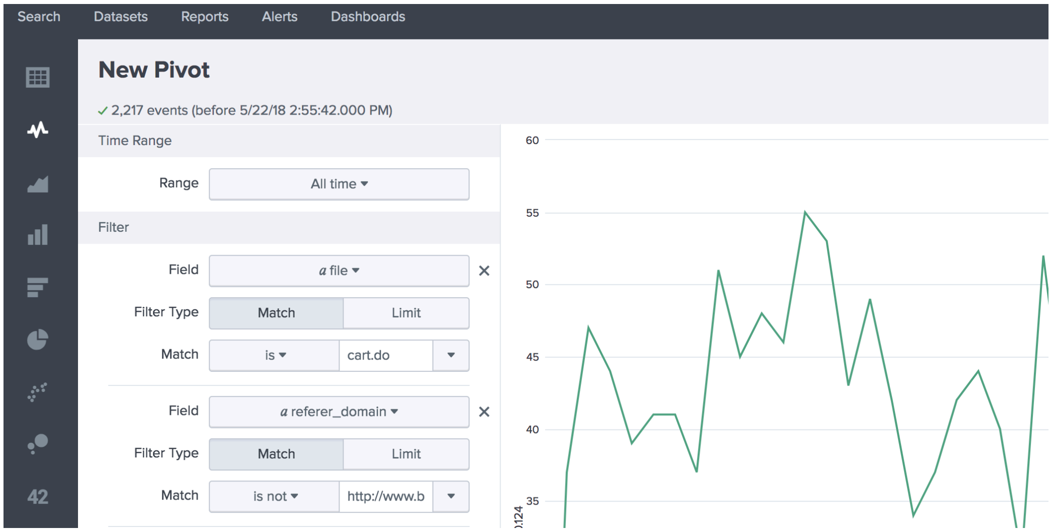
Filter Type: Match | Limit

Match: is not ▾ *

- http://www.buttercupgames.com
- http://www.google.com
- http://www.yahoo.com
- http://www.bing.com
- https://www.google.com

16. Click **Add To Table**.
17. Use the black sidebar to select the **Line Chart** visualization.

Example:



New Pivot

✓ 2,217 events (before 5/22/18 2:55:42.000 PM)

Time Range

Range: All time ▾

Filter

Field: a file ▾

Filter Type: Match | Limit

Match: is ▾ cart.do

Field: a referer_domain ▾

Filter Type: Match | Limit

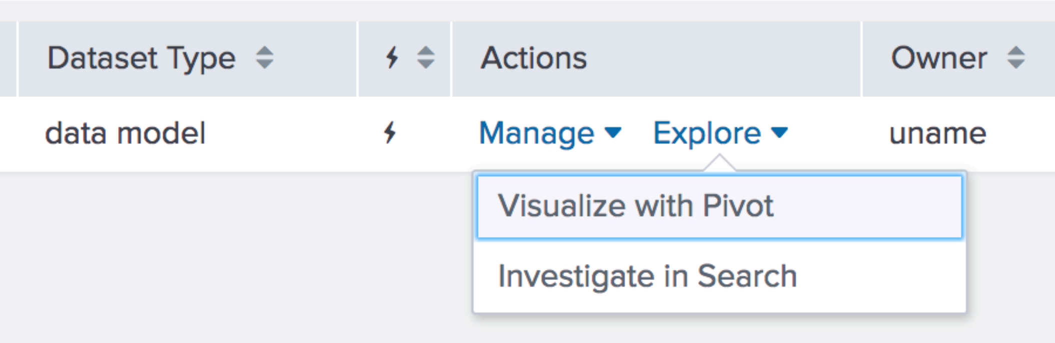
Match: is not ▾ http://www.b

Task 3: Add a panel to a dashboard from a pivot, and create a Data Model.

18. Use the **Save As** menu to select **Dashboard Panel.**

19. Notice that there are form fields for **Model Title** and **Model ID**. Pivot reports require a data model. Since you used Instant Pivot from the **Visualization** tab, there is currently not a data model for this report. Saving the report will create a new data model from the original search.
20. Save the dashboard with these values:
    - Dashboard: *Existing*
    - Dashboard Title: *Sales Dashboard*
    - Panel Title**:** *Sales By Referral Domain*
    - Model Title: Web Application Dataset
    - Model ID: web_app_ds
21. Click **View Dashboard** to view the dashboard.
22. Click the **Datasets** menu option on the bar at the top of the screen.
23. Click **Yours** on the filter toolbar to show only your Datasets.
24. Select **Explore** from the actions menu and click **Visualize with Pivot**.

Example:



Dataset Type	⚡	Actions	Owner
data model	⚡	Manage ▾ Explore ▾	uname

25. Use the **Filter** and **Split** tools to explore your data in the pivot interface.