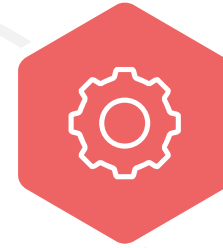


SCK-Automation Work 2021



Kibana Dashboard

Explore, Visualize, Discover DATA

Last updated: Wednesday, October 20, 2021



2nd Day Agenda

- Import Data
- Complex Dashboard
- Design your Own Dashboard
 - Source of Data
 - Special Features

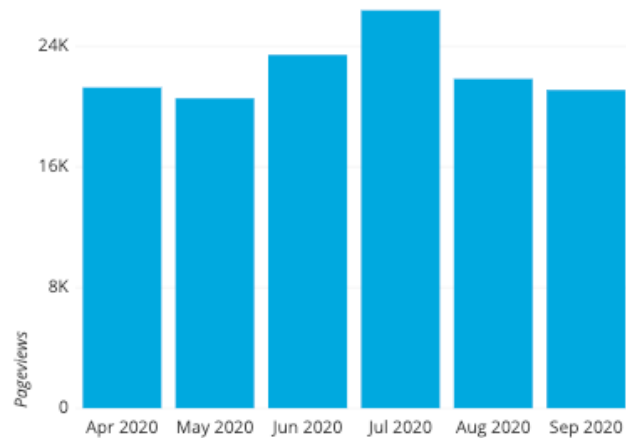




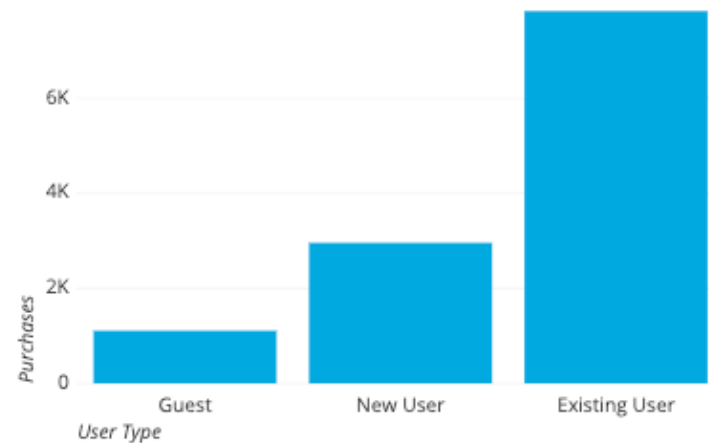
Simple Dashboard

Visualized **in** The **First** Step

Kibana : Bar Chart



Purchases by User Type



A bar chart is used when you want to show a **distribution of data points** or perform a **comparison of metric values** across different subgroups of your data. From a bar chart, we can see which groups are highest or most common, and how other groups compare against the others. Since this is a fairly common task, bar charts are a fairly ubiquitous chart type.



Kibana **LEN** : Bar Chart Properties

Distribution

Bar vertical stacked

kibana_sample_data_ecommerce

Horizontal axis

+ Add or drag and drop a field

Vertical axis

+ Add or drag and drop a field

Break down by

+ Add or drag and drop a field

Add layer

Metric Values



Kibana **LEN** : Vertical axis - **Metric Values**

Vertical axis

Quick functions

Formula

Select a function

Average

Count

Counter rate

Cumulative sum

Differences

Last value

Maximum

Median

Minimum

Moving average

Percentile

Sum

Unique count

Select a field

Records

Add advanced options

Display name

Count of records

Value format

Default

Series color

#54B399



Kibana **LEN** : Horizontal axis - **Date Histogram**

Horizontal axis

Select a function

Date histogram

Filters

Intervals

Top values

Select a field

order_date

Available fields

order_date

products.created_on

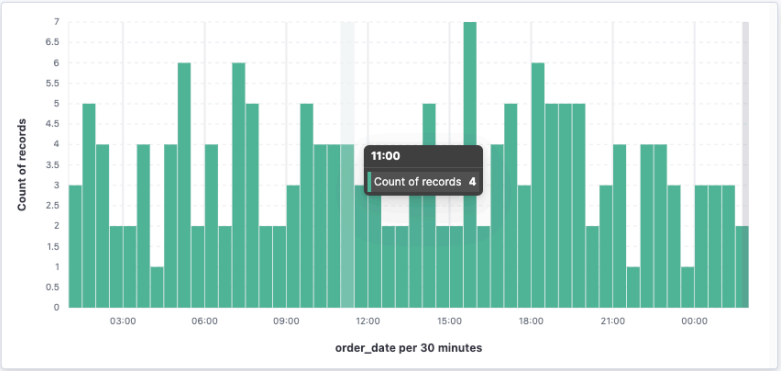
category.keyword

currency

customer_first_name.keyword

customer_full_name.keyword

Data type : date



☒ Customize time interval

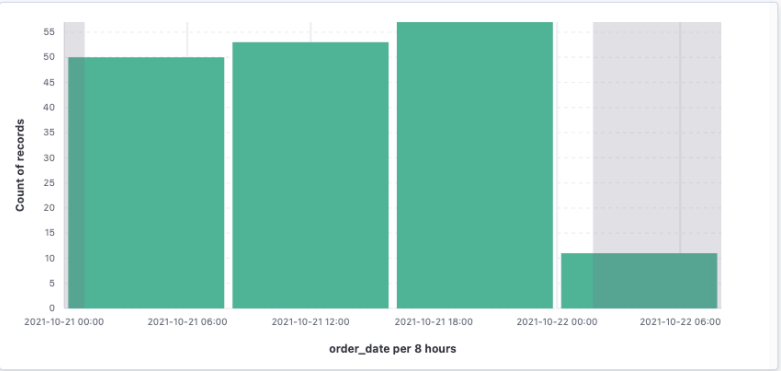
Minimum interval

8

hours

Display name

order_date



Kibana **LEN** : Horizontal axis - **Top values**

Horizontal axis ×

Select a function

Date histogram

Filters

Intervals

Top values

Select a field

category.keyword

Number of values

10

Rank by

Count of records

Rank direction

Descending

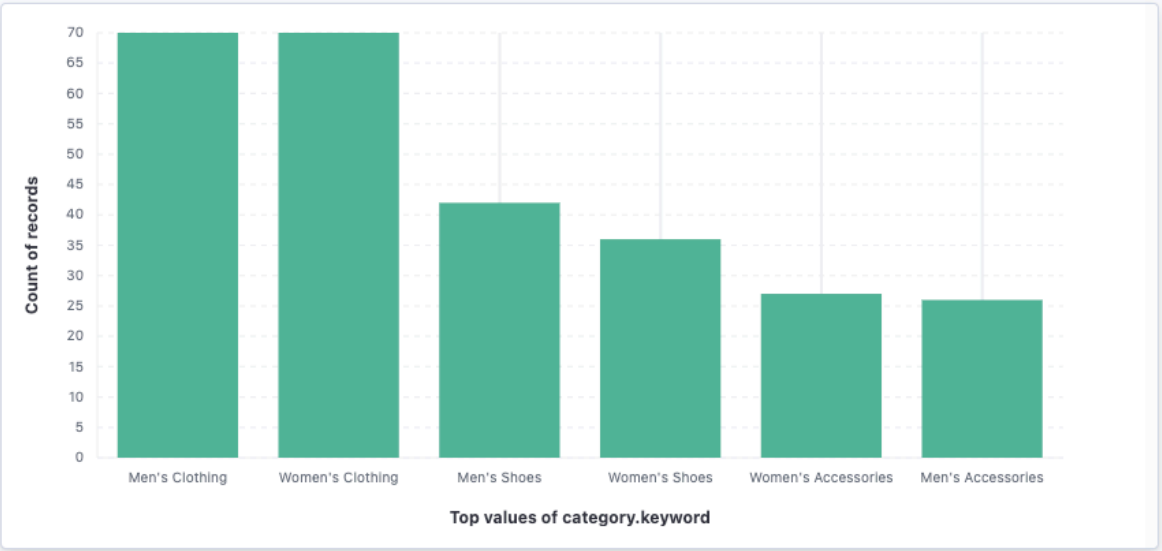
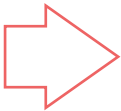
Advanced

☒ Group other values as "Other"

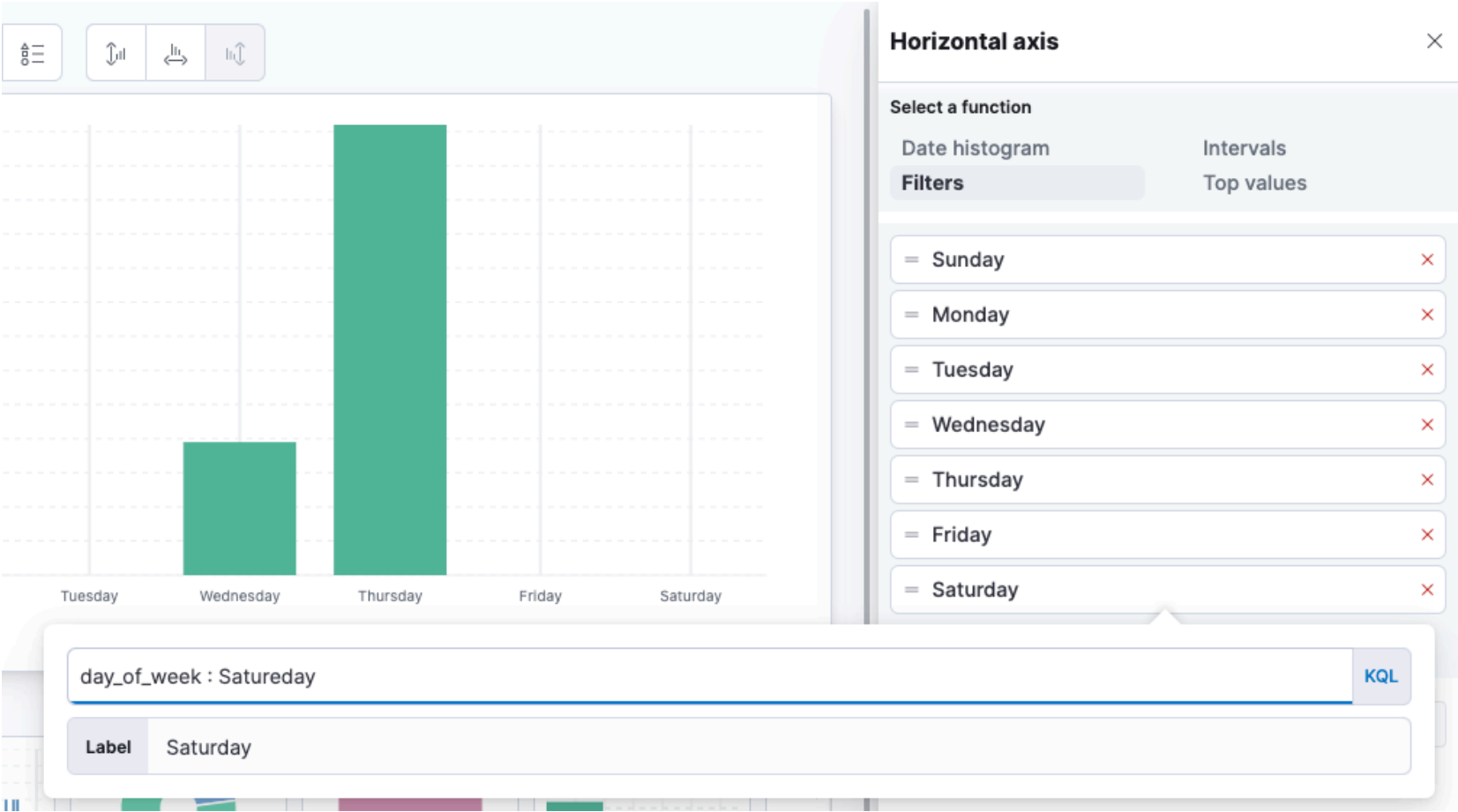
☐ Include documents without this field

Display name

Top values of category.keyword



Kibana **LEN** : Horizontal axis - **Filter**



Kibana LEN : Horizontal axis - Interval

Horizontal axis

Select a function

Date histogram

Intervals

Filters

Top values

Select a field

taxful_total_price

Intervals granularity

⊖

⊕

[How it works](#)

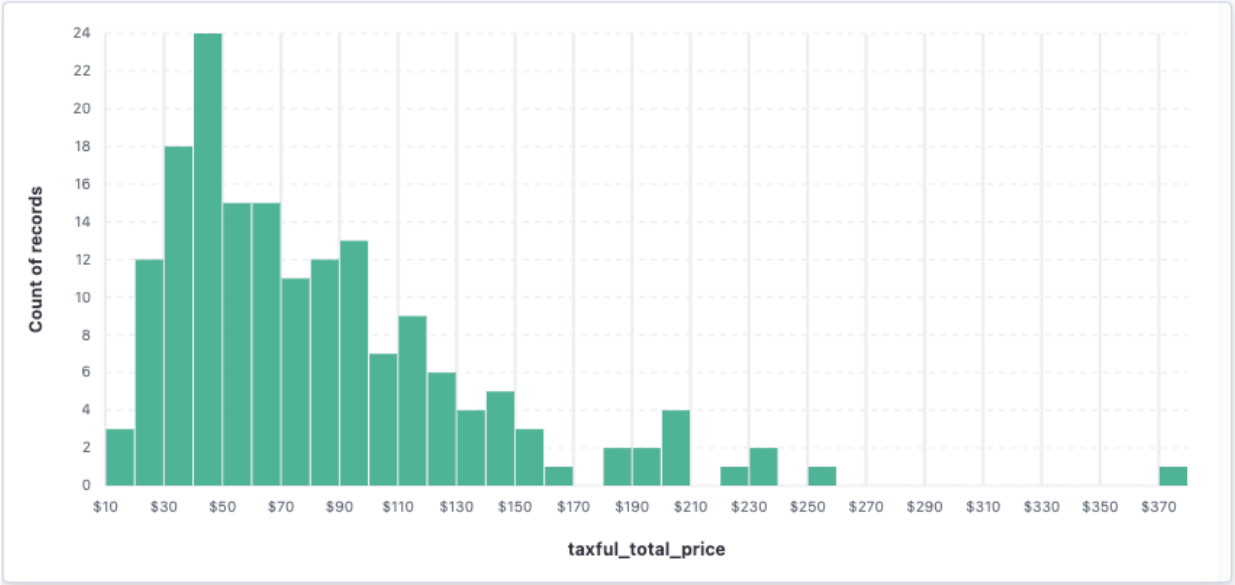
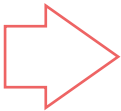
[Create custom ranges](#)

Display name

taxful_total_price

Value format

Default



Kibana **LEN** : Add Another Vertical axis

Bar vertical

kibana_sample_data_ecommerce

Horizontal axis

Category

Vertical axis

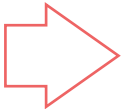
Sum of taxful_total_price

Add or drag and drop a field

Break down by

Add or drag and drop a field

Add layer



Vertical axis

Close

Quick functions

Formula

Select a function

Average

Count

Counter rate

Cumulative sum

Differences

Last value

Maximum

Median

Minimum

Moving average

Percentile

Sum

Unique count

Select a field

total_quantity

Add advanced options

Display name

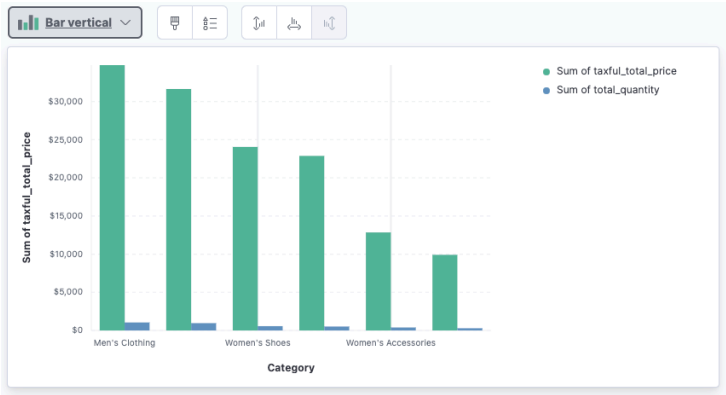
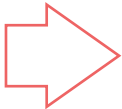
Sum of total_quantity

Value format

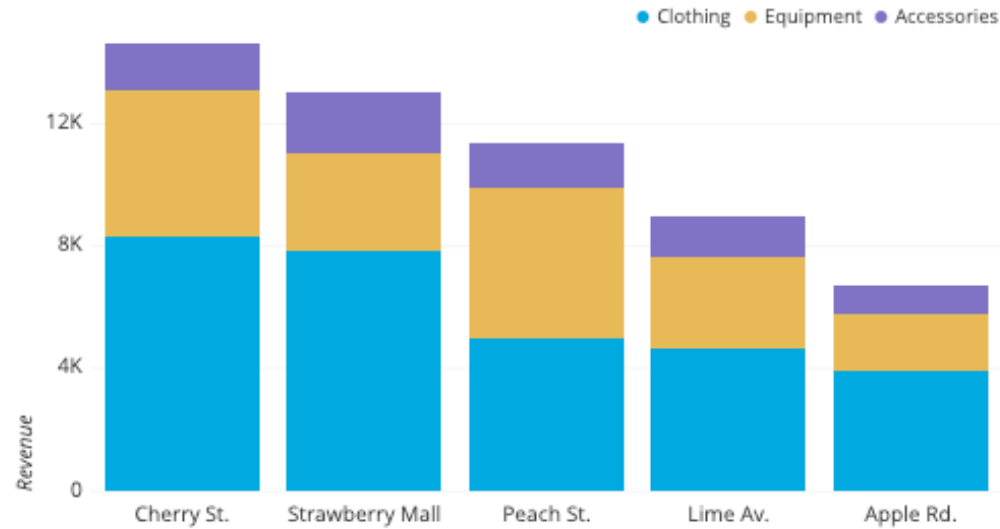
Default

Series color

#6092C0



Kibana : Stacked Bar Chart



The stacked bar chart (aka stacked bar graph) extends the standard **bar chart** from looking at numeric values across one categorical variable to two. Each bar in a standard bar chart is divided into a number of sub-bars stacked end to end, each one corresponding to a level of the second categorical variable.



Kibana **LEN** : Break Down By

Bar vertical

kibana_sample_data_ecommerce

Horizontal axis

Category

Vertical axis

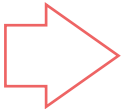
Sum of taxful_total_price

Add or drag and drop a field

Break down by

Add or drag and drop a field

Add layer



Break down by

Select a function

Date histogram

Filters

Intervals

Top values

Select a field

customer_gender

Number of values

2

Rank by

Alphabetical

Rank direction

Ascending

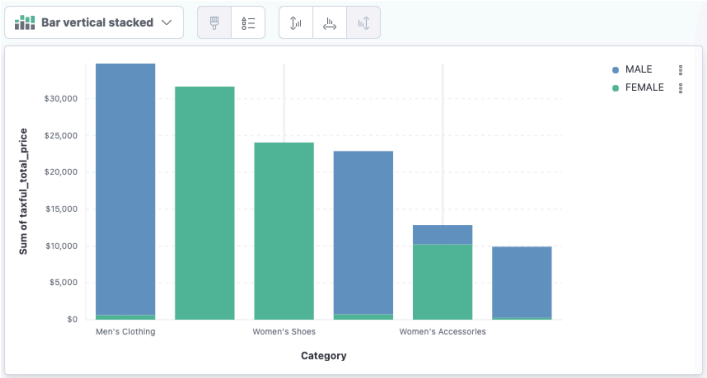
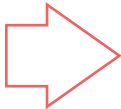
Advanced

Display name

Top values of customer_gender

Group by this field first

Color palette



Kibana : Line Chart

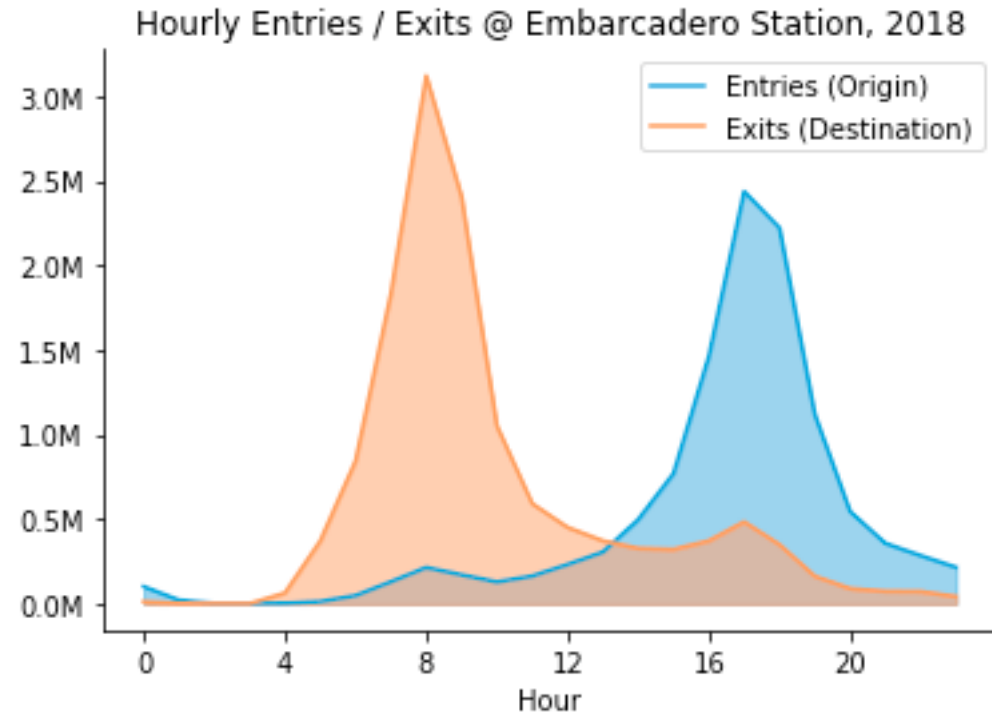
ZZD to QQY Exchange Rates



A line chart (aka line plot, line graph) uses points connected by line segments from left to right to **demonstrate changes in value**. The horizontal axis depicts a continuous progression, often that of time, while the vertical axis reports values for a metric of interest across that progression.



Kibana : Area Chart

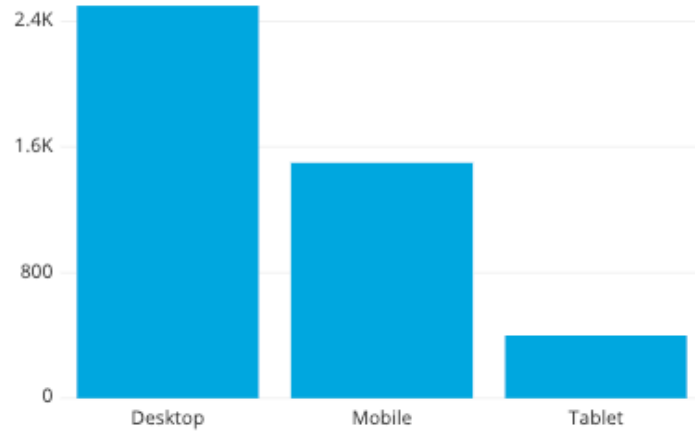


An area chart combines the [line chart](#) and [bar chart](#) to show how one or more groups' numeric values change over the progression of a second variable, typically that of time. An area chart is distinguished from a line chart by the addition of shading between lines and a baseline, like in a bar chart.

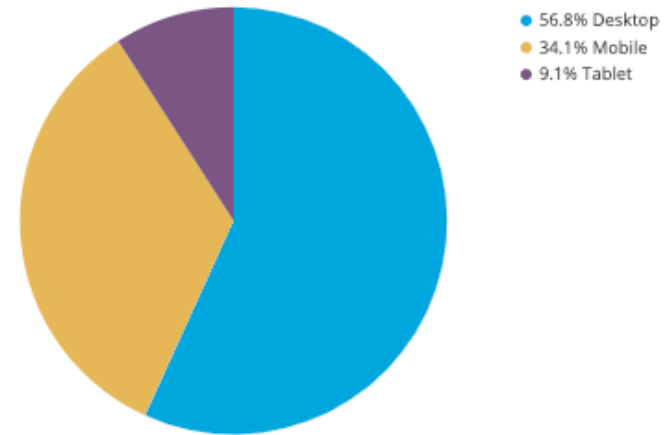


Kibana : Pie Chart

Number of Visits by Device



Number of Visits by Device





A pie chart shows how a total amount is divided between levels of a categorical variable as a circle divided into radial slices. Each categorical value corresponds with a single slice of the circle, and the size of each slice (both in area and arc length) indicates what proportion of the whole each category level takes.



Kibana **LEN** : Pie Chart Properties

Distribution

 **Pie** 

kibana_sample_data_ecommerce

▼

Slice by

+

Add or drag and drop a field

Size by

+

Add or drag and drop a field

Metric Values



Kibana **LEN** : Pie Chart Properties

Pie

kibana_sample_data_ecommerce

Slice by

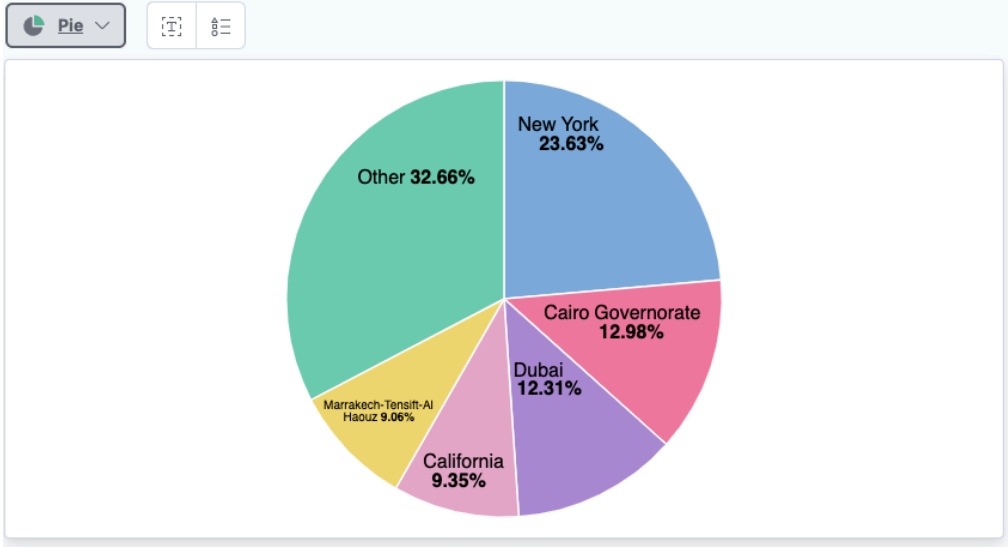
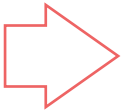
Top values of geoip.region_name

+

 Add or drag and drop a field

Size by

Sum of taxful_total_price



Kibana : Metric

Metric

Quick functions

Formula

Select a function

Average

Count

Counter rate

Cumulative sum

Differences

Last value

Maximum

Median

Minimum

Moving average

Percentile

Sum

Unique count

Select a field

products.taxful_price

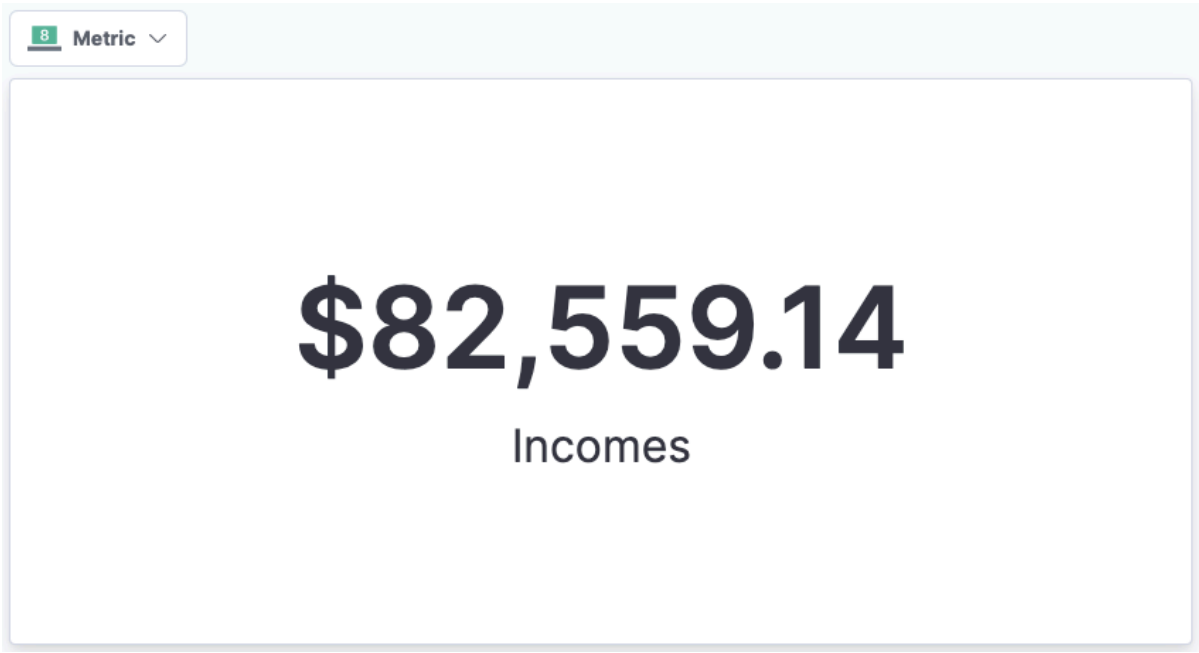
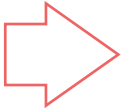
Add advanced options

Display name

Incomes

Value format

Default



Kibana : Table

Table

kibana_sample_data_ecommerce

Rows

Top values of day_of_week

Add or drag and drop a field

Columns

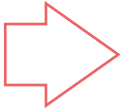
taxful_total_price

Add or drag and drop a field

Metrics

Count of records

Add or drag and drop a field



Table

Top values of day_of_w	\$10 > Cour	\$20 > Cour	\$30 > Cour	\$40 > Cour	\$50 > Cour	\$60 > Cour	\$
Thursday	4	16	21	28	17	21	
Monday	2	12	14	22	12	15	
Saturday	2	9	20	23	10	14	
Wednesday	2	10	11	21	12	12	
Friday	1	4	15	21	24	13	
Sunday	1	13	15	18	19	15	
Tuesday	-	6	22	27	12	15	



Kibana : Heatmap

Heatmap

kibana_sample_data_ecommerce

Horizontal axis

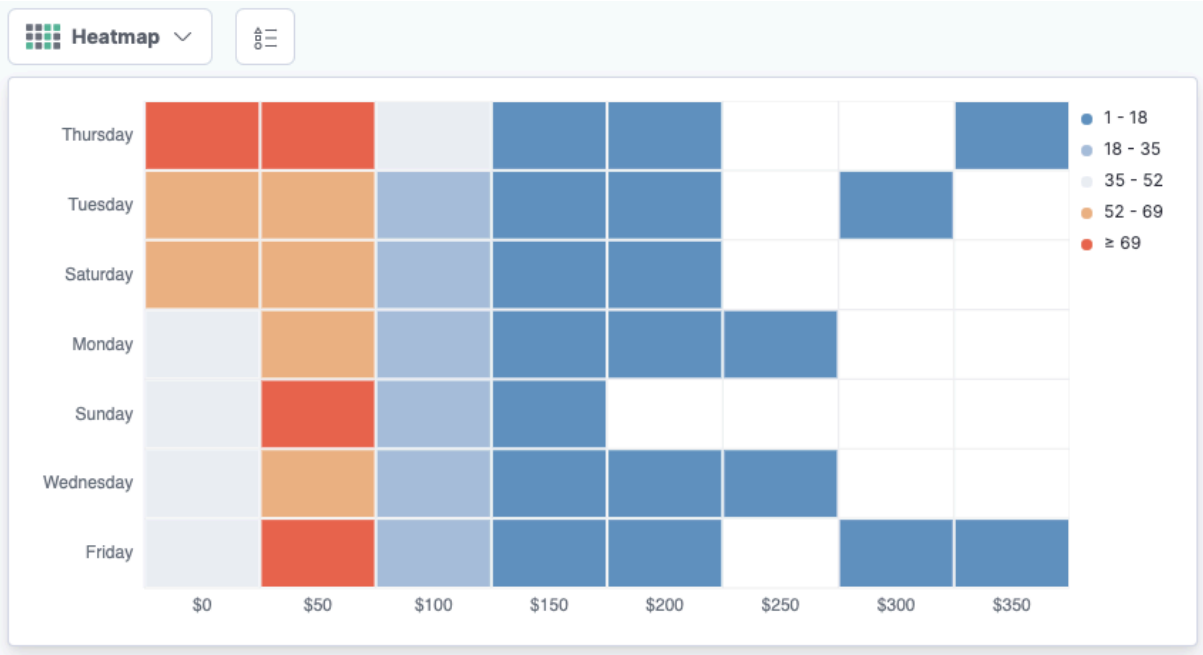
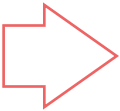
taxful_total_price

Vertical axis

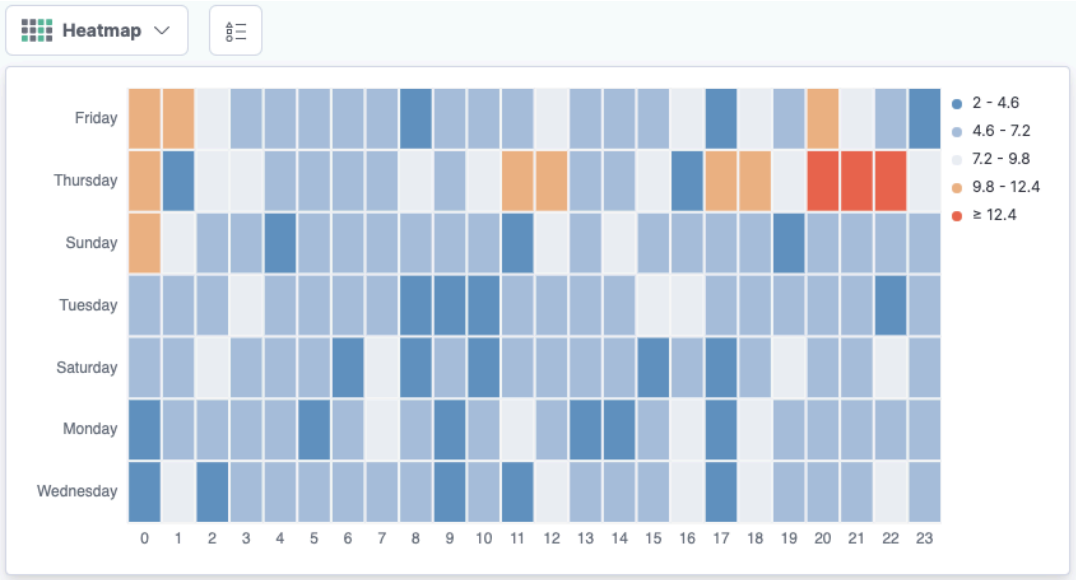
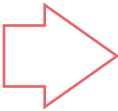
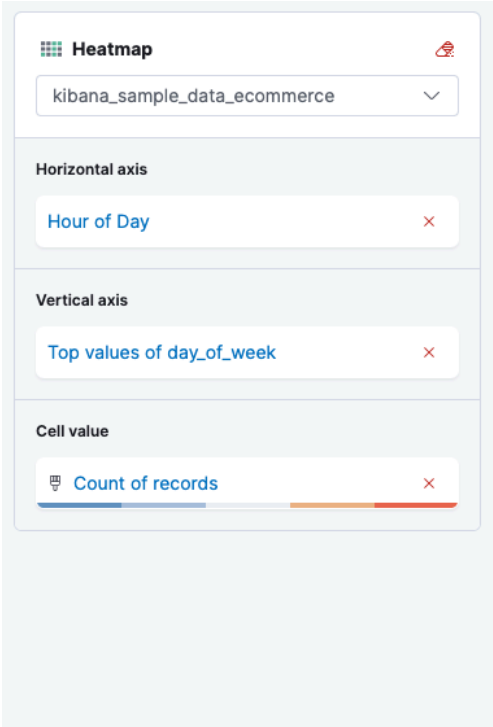
Top values of day_of_week

Cell value

Count of records



Kibana : Heatmap

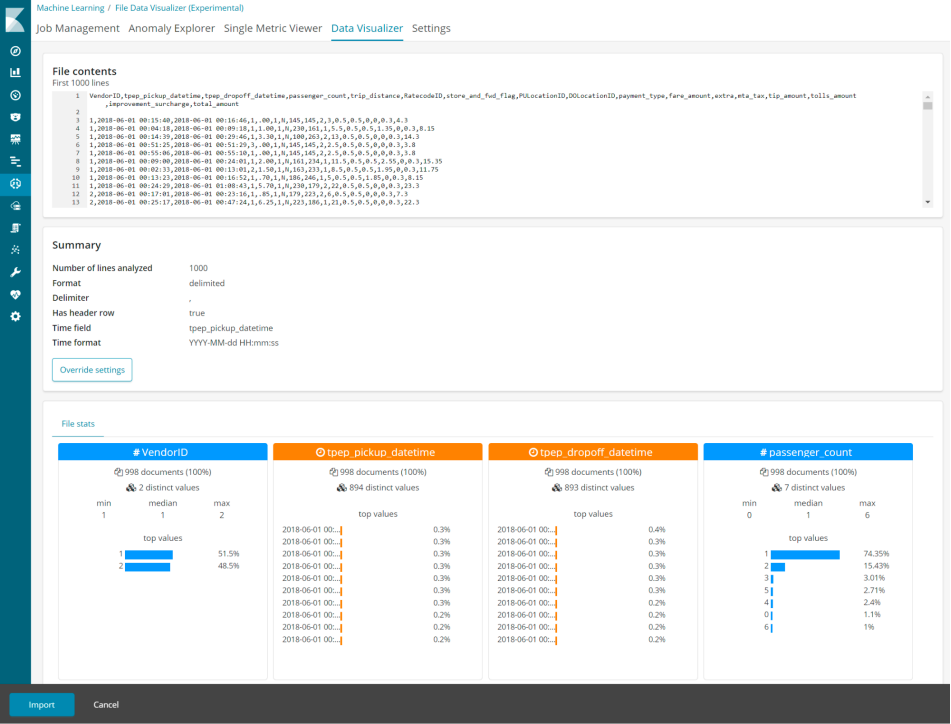




Import Data

working **with** Your **Own** Data

Kibana : File Data Visualizer

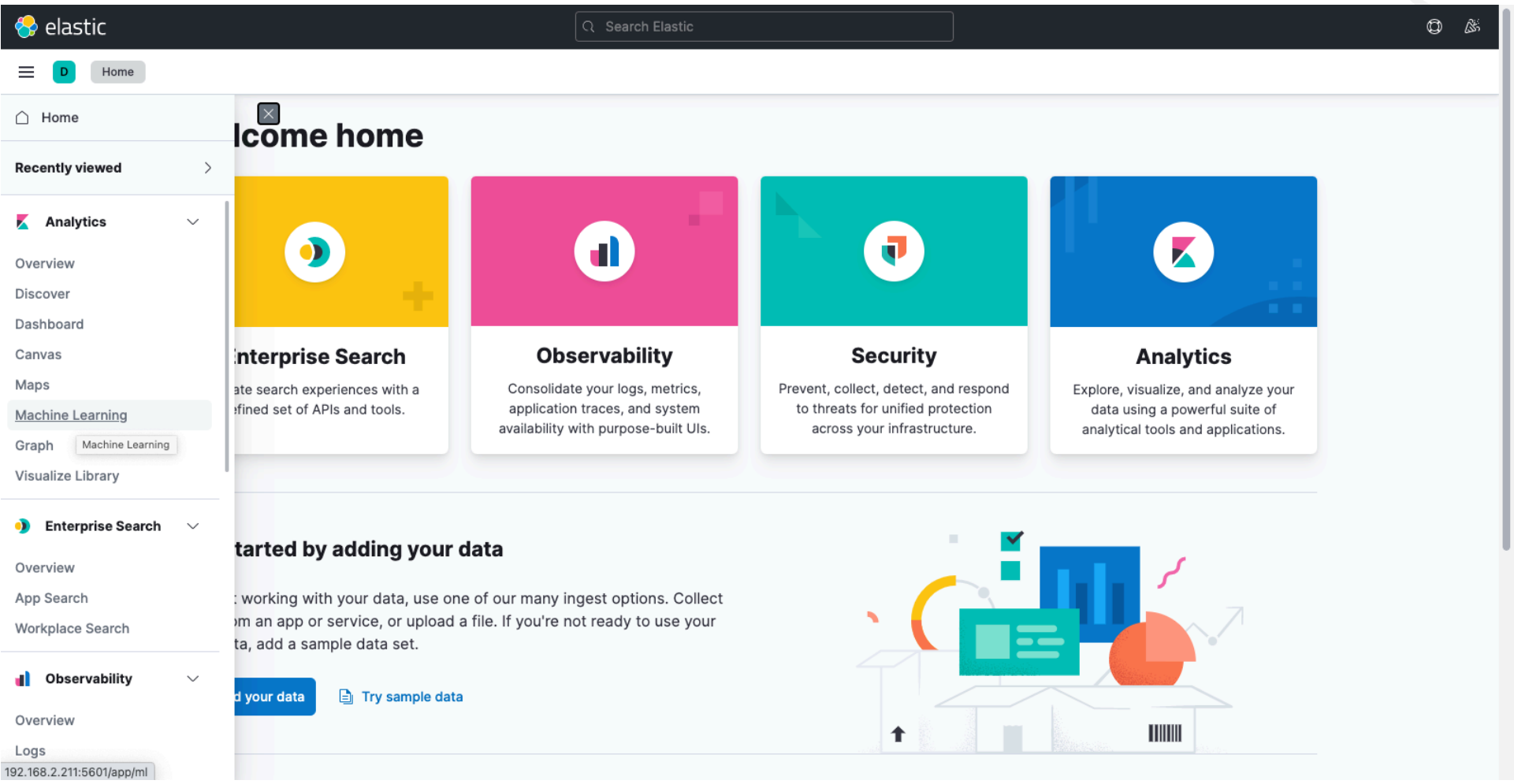


Visualize data from a log file

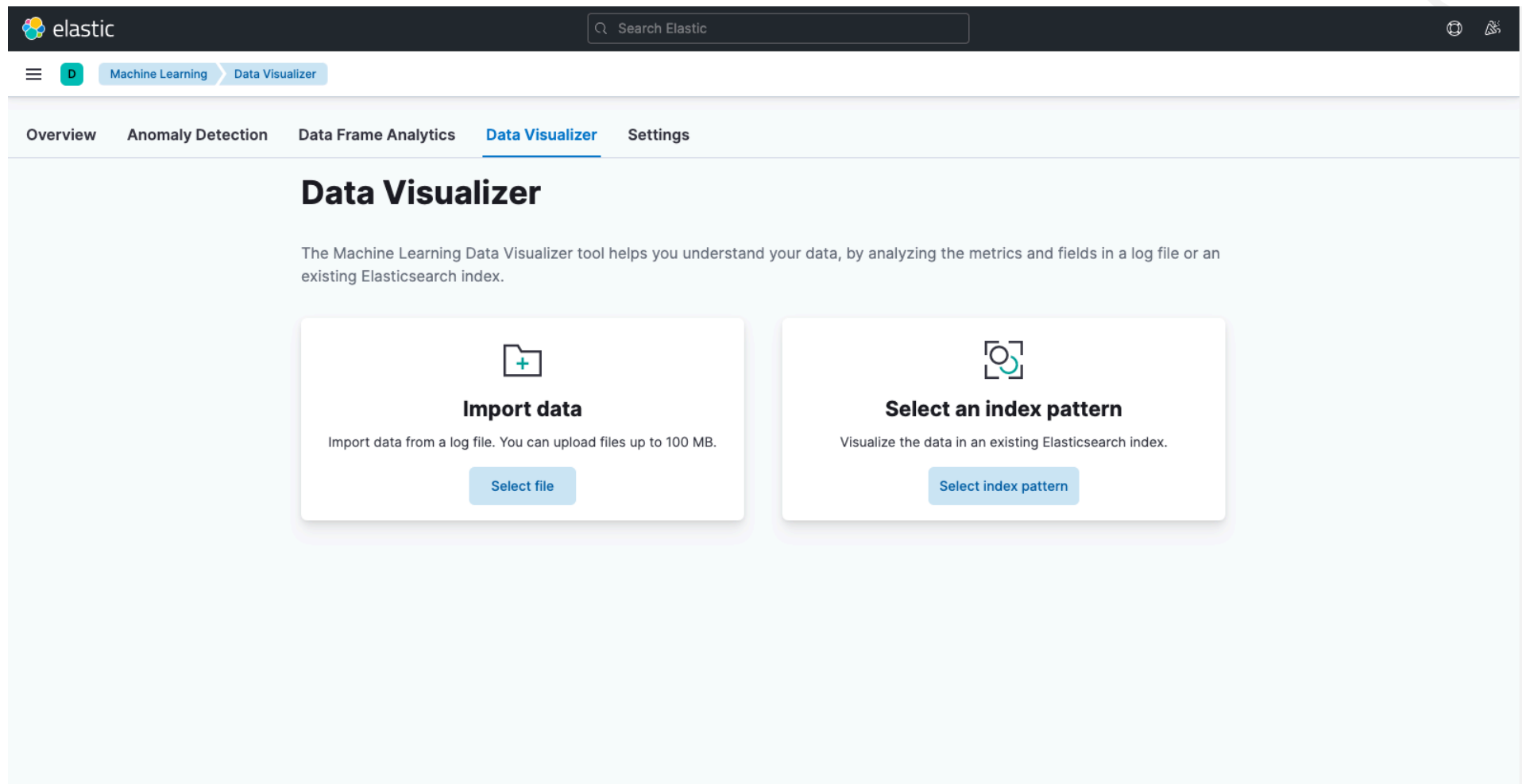
Machine learning features are now available for users on a Basic license. The Data Visualizer helps you understand the metrics and fields in your data in preparation for further analysis. With the new File Data Visualizer, you can upload a CSV, NDJSON, or log file. The File Data Visualizer uses the new File Structure API to identify the file format and field mappings. You can then choose to import the data into an Elasticsearch index. The log file import feature is experimental in 6.5, and is limited to files up to 100 MB in size.



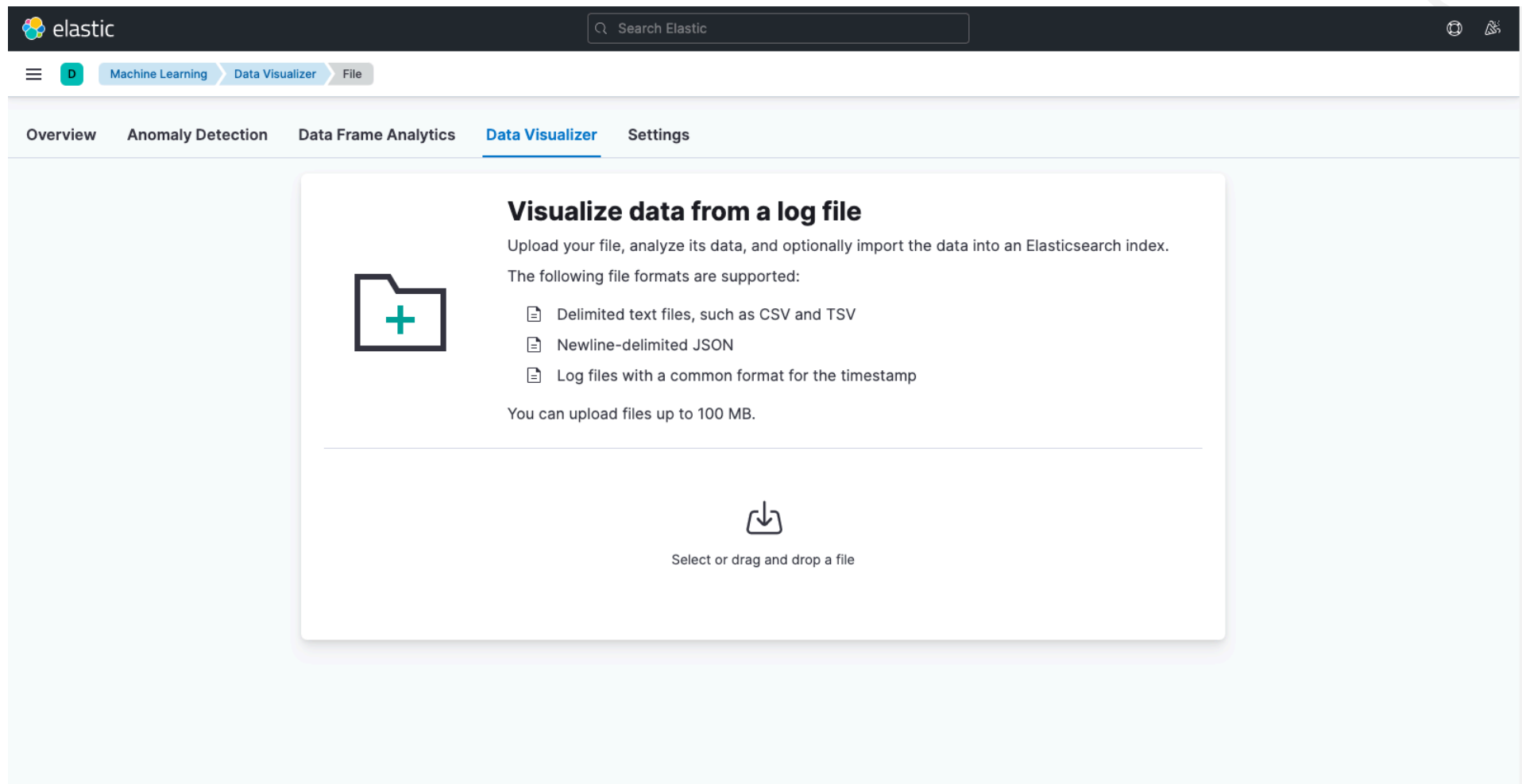
Kibana : Machine Learning



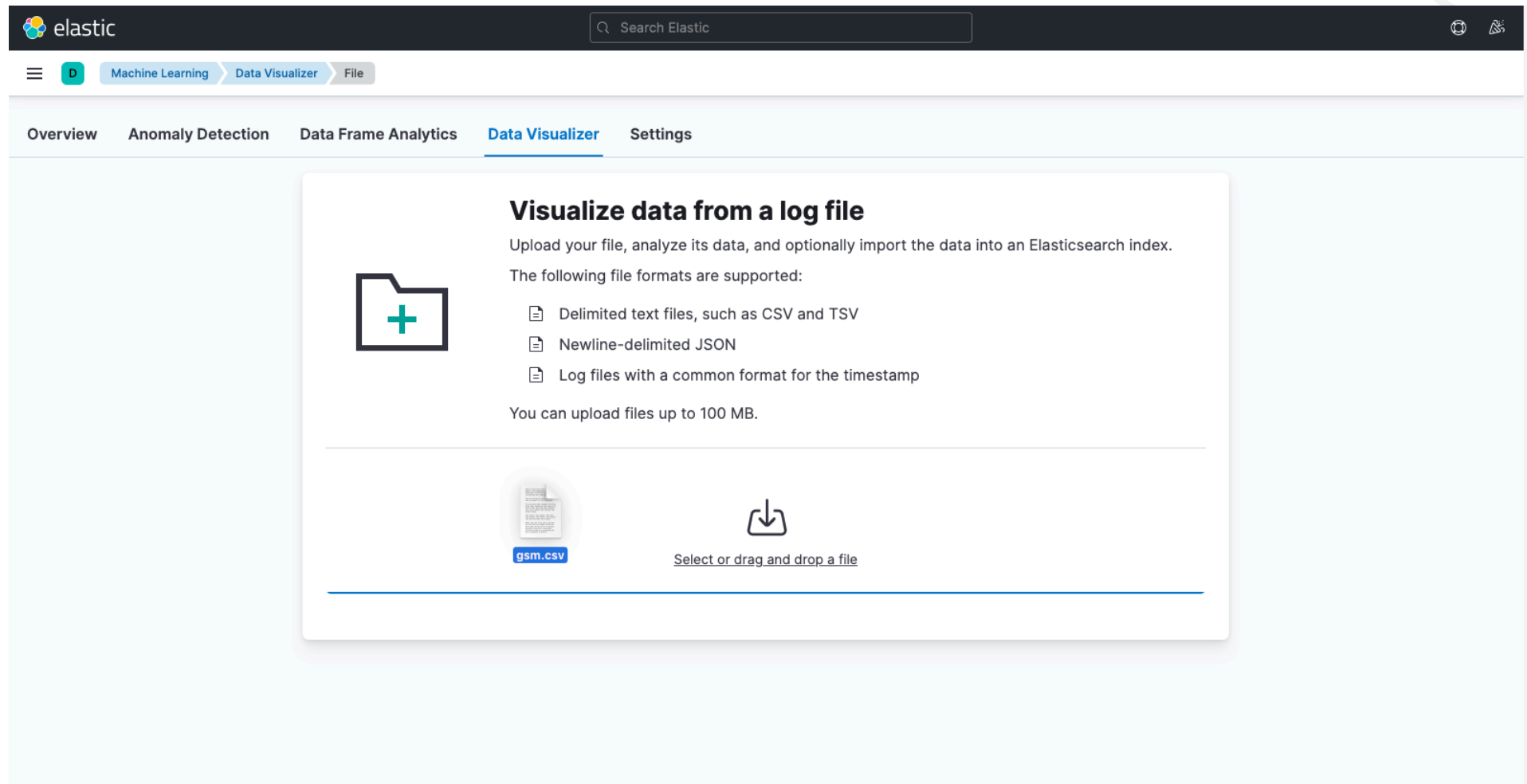
Kibana : Data Visualizer



Kibana : Import Data



Kibana : Import Data



The screenshot shows the Kibana web interface. At the top, the 'elastic' logo is on the left, and a search bar labeled 'Search Elastic' is on the right. Below the header, a navigation bar contains a hamburger menu, a 'D' icon, and tabs for 'Machine Learning', 'Data Visualizer' (which is active), and 'File'. Under the 'Data Visualizer' tab, there are sub-tabs: 'Overview', 'Anomaly Detection', 'Data Frame Analytics', 'Data Visualizer' (selected), and 'Settings'. The main content area features a white card titled 'Visualize data from a log file'. This card includes a folder icon with a green plus sign, a description of the upload process, a list of supported file formats, and a file upload area with a 'gsm.csv' file icon and a download icon.

elastic

Search Elastic

Machine Learning Data Visualizer File

Overview Anomaly Detection Data Frame Analytics **Data Visualizer** Settings



Visualize data from a log file

Upload your file, analyze its data, and optionally import the data into an Elasticsearch index.

The following file formats are supported:

- Delimited text files, such as CSV and TSV
- Newline-delimited JSON
- Log files with a common format for the timestamp

You can upload files up to 100 MB.

gsm.csv Select or drag and drop a file



Kibana : Import Data

elastic

Search Elastic

D

Machine Learning

Data Visualizer

File

Overview

Anomaly Detection

Data Frame Analytics

Data Visualizer

Settings

gsm.csv

File contents

First 1,000 lines

1

"oem","model","network_technology","network_2g_bands","network_gprs","network_edge","launch_announced","launch_status","body_dimensions","body_weight","body_sim","display_type","display_size",
,"display_resolution","display","memory_card_slot","memory_phonebook","memory_call_records","sound_loudspeaker","sound_alert_types","sound_3.5mm_jack","comms_wlan","comms_bluetooth","comms_gps",
,"comms_radio","comms_usb","features_sensors","features_messaging","features_browser","features_clock","features_alarm","features_games","features_java","features","misc_colors","network_3g_bands",
,"network_speed","platform_os","platform_chipset","platform_cpu","platform_gpu","memory_internal","main_camera_single","main_camera_video","misc_price","main_camera_features","body",
,"network_4g_bands","body_build","display_protection","memory","main_camera_dual","selfie_camera_dual","selfie_camera_features","selfie_camera_video","comms_nfc","battery_charging","misc_models",
,"tests_performance","tests_camera","tests_loudspeaker","tests_audio_quality","tests_battery_life","tests_display","selfie_camera_single","comms_infrared_port","network_5g_bands","main_camera_quad",
,"main_camera_triple","sound","misc_sar_eu","main_camera_five","features_languages","body_keyboard","misc_sar","battery","main_camera_dual_or_triple","battery_music_play","selfie_camera_triple",
,"main_camera_v1","selfie_camera","camera","main_camera","network","battery_talk_time","battery_stand_by"

2

"Benefon","Vega","GSM","GSM 900","No","No","1999","Discontinued","145 x 56 x 23 mm (5.71 x 2.20 x 0.91 in)","190 g (6.70 oz)","Mini-SIM","Monochrome graphic",,"6 lines","Cyrillic characters","No","SIM",
only","15 dialed, 12 received, 12 missed calls","No","Vibration; Monophonic ringtones","No","No","No","No","No","No","V1","SMS","Yes","Yes","No","No","Organizer","V1",
,"Removable Li-Ion battery",,"No",,"4 - 10 h","3 - 6 days"

3

"Garmin-Asus","nuvifone M10","GSM / HSPA","GSM 900 / 1800 / 1900",,"2010, January. Released 2010, March","Discontinued","-","-",,"Mini-SIM","TFT resistive touchscreen, 65K colors","3.5 inches, 34.9 cm",
"480 x 800 pixels, 5.2 inch (132 mm diagonal)",,"Miscellaneous (dedicated slot)",,"Yes","Yes","Wi-Fi 802.11b/g/n","2.0 A2000","Yes with A-GPS","No","2.0 A","Accelerometer","WAP 2.0/xHTML",,"HTML"

Summary

Number of lines analyzed

1000

Format

delimited

Delimiter

,

Has header row

true

Override settings

Analysis explanation

Import

Cancel



Kibana : Import Data

elastic

Search Elastic

D

Machine Learning

Data Visualizer

File



File stats

All fields 86 of 86 total

Number fields 0 of 0 total

Field name 86

Field type 3

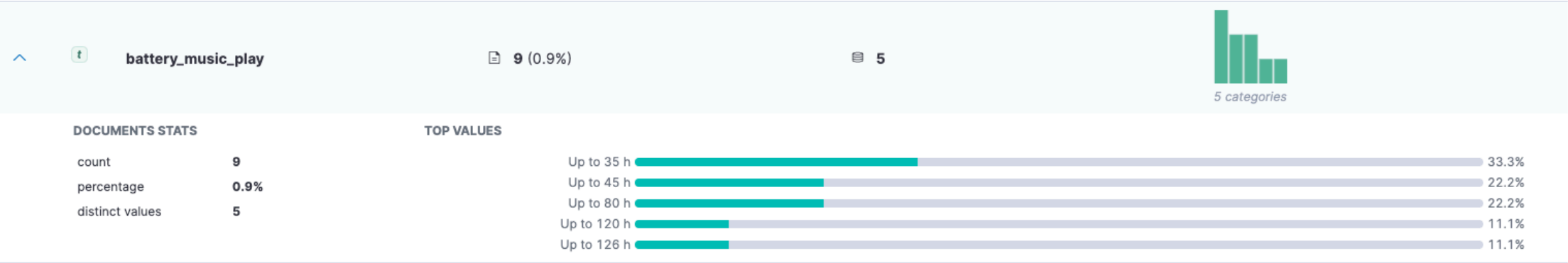
Type	Name ↑	Documents (%)	Distinct values	Distributions
	battery	999 (100%)	191	
	battery_charging	400 (40.04%)	116	
	battery_music_play	9 (0.9%)	5	
	battery_stand_by	384 (38.44%)	122	
	battery_talk_time	381 (38.14%)	97	
	body	164 (16.42%)	42	
	body_build	366 (36.64%)	48	
	body_dimensions	999 (100%)	653	
	body_keyboard	11 (1.1%)	1	

Import

Cancel



Kibana : Import Data



Kibana : Import Data

elastic

Search Elastic

D

Machine Learning

Data Visualizer

File

Overview

Anomaly Detection

Data Frame Analytics

Data Visualizer

Settings

gsm.csv

Import data

Simple

Advanced

Index name

gsm-mobile-data

☒

 Create index pattern

Import

Back

Cancel



Kibana : Import Data

elastic

Search Elastic

Machine Learning

Data Visualizer

File

Reset

✓

File processed

✓

Index created

✓

Ingest pipeline created

✓

Data uploaded

✓

Index pattern created

✓ Import complete

Index

gsm-mobile-data

Index pattern

gsm-mobile-data

Ingest pipeline

gsm-mobile-data-pipeline

Documents ingested

10679

View index in Discover

Index Mar

Back

Cancel

elastic

Search Elastic

Discover

Search

+ Add filter

gsm-mobile-data

Search field names

Filter by type 0

10,679 hits

Document

battery: Removable Li-Ion battery

battery_stand_by: 3 - 6 days

battery_talk_time: 4 - 10 h

body_sim: Mini-SIM

body_weight: 190 g (6.70 oz)

camera: No

comms_bluetooth: No

comms_gps:



Kibana : Data Discover

elastic

Search Elastic

Discover

Options

New

Save

Open

Share

Inspect

Search

KQL

Refresh

+ Add filter

gsm-mobile-data

10,679 hits

Search field names

Filter by type 0

Available fields

87

_id

_index

_score

_type

battery

battery_charging

battery_music_play

battery_stand_by

battery_talk_time

body

body_build

body_dimensions

body_keyboard

body_sim

Document

>

battery: Removable Li-Ion battery battery_stand_by: 3 - 6 days battery_talk_time: 4 - 10 h body_dimensions: 145 x 56 x 23 mm (5.71 x 2.20 x 0.91 in) body_sim: Mini-SIM body_weight: 190 g (6.70 oz) camera: No comms_bluetooth: No comms_gps: No comms_radio: No comms_wlan: No display: Cyrillic characters display_resolution: 6 lines display_type: Monochrome graphic features: Organizer features_alarm: Yes features_clock: Yes features_games: No features_java: No features_messaging: SMS features_sensors: V1 launch_announced: 1999 launch_status: Discontinued memory_call_records: 15 dialed, 12 received, 12 missed calls memory_card_slot: No memory_phonebook: SIM only misc_colors: V1 model: Vega network_2g_bands: GSM 900 network_edge: No network_gprs: No

>

battery: Removable Li-Ion 1500 mAh battery battery_stand_by: Up to 600 h (2G) / Up to 600 h (3G) battery_talk_time: Up to 8 h body_dimensions: - body_sim: Mini-SIM body_weight: - comms_bluetooth: 2.0, A2DP comms_gps: Yes, with A-GPS comms_radio: No comms_usb: 2.0 comms_wlan: Wi-Fi 802.11b/g display_resolution: 480 x 800 pixels, 5:3 ratio (~267 ppi density) display_size: 3.5 inches, 34.9 cm display_type: TFT resistive touchscreen, 65K colors features: MP3/eAAC+/WAV/WMA player MP4/H.264/WMV player Organizer Pocket Office Voice memo Predictive text input features_browser: WAP 2.0/xHTML, HTML features_sensors: Accelerometer launch_announced: 2010, January. Released 2010, March launch_status: Discontinued main_camera_single: 5 MP, AF main_camera_video: 480p@24fps

>

battery: Removable Li-Po 1230 mAh battery battery_stand_by: Up to 410 h battery_talk_time: Up to 7 h 10 min body_dimensions: 116 x 56.8 x 12.4 mm (4.57 x 2.24 x 0.49 in) body_sim: Mini-SIM body_weight: 118 g (4.16 oz) comms_bluetooth: 2.0, A2DP comms_gps: Yes, with A-GPS comms_usb: 2.0 comms_wlan: Wi-Fi 802.11 b/g display_resolution: 320 x 480 pixels, 3:2 ratio (~180 ppi density) display_size: 3.2 inches, 30.5 cm (~46.3% screen-to-body ratio) display_type: TFT capacitive touchscreen, 256K colors features: MP3/WAV/eAAC+ player MP4/H.264 player Document viewer Photo viewer/editor Organizer Voice memo Predictive text input features_browser: HTML features_sensors: Accelerometer launch_announced: 2010, April. Released 2010, April launch_status: Discontinued main_camera_features: LED

>

battery: Removable Li-Ion 1500 mAh battery body: Trackball body_dimensions: 103 x 54 x 13.4 mm (4.06 x 2.13 x 0.53 in) body_sim: Mini-SIM body_weight: - comms_bluetooth: 2.0, A2DP comms_gps: Yes, with A-GPS comms_usb: Proprietary comms_wlan: Wi-Fi 802.11 b/g display_resolution: 240 x 320 pixels, 4:3 ratio (~143

gsm (2).csv

Show All

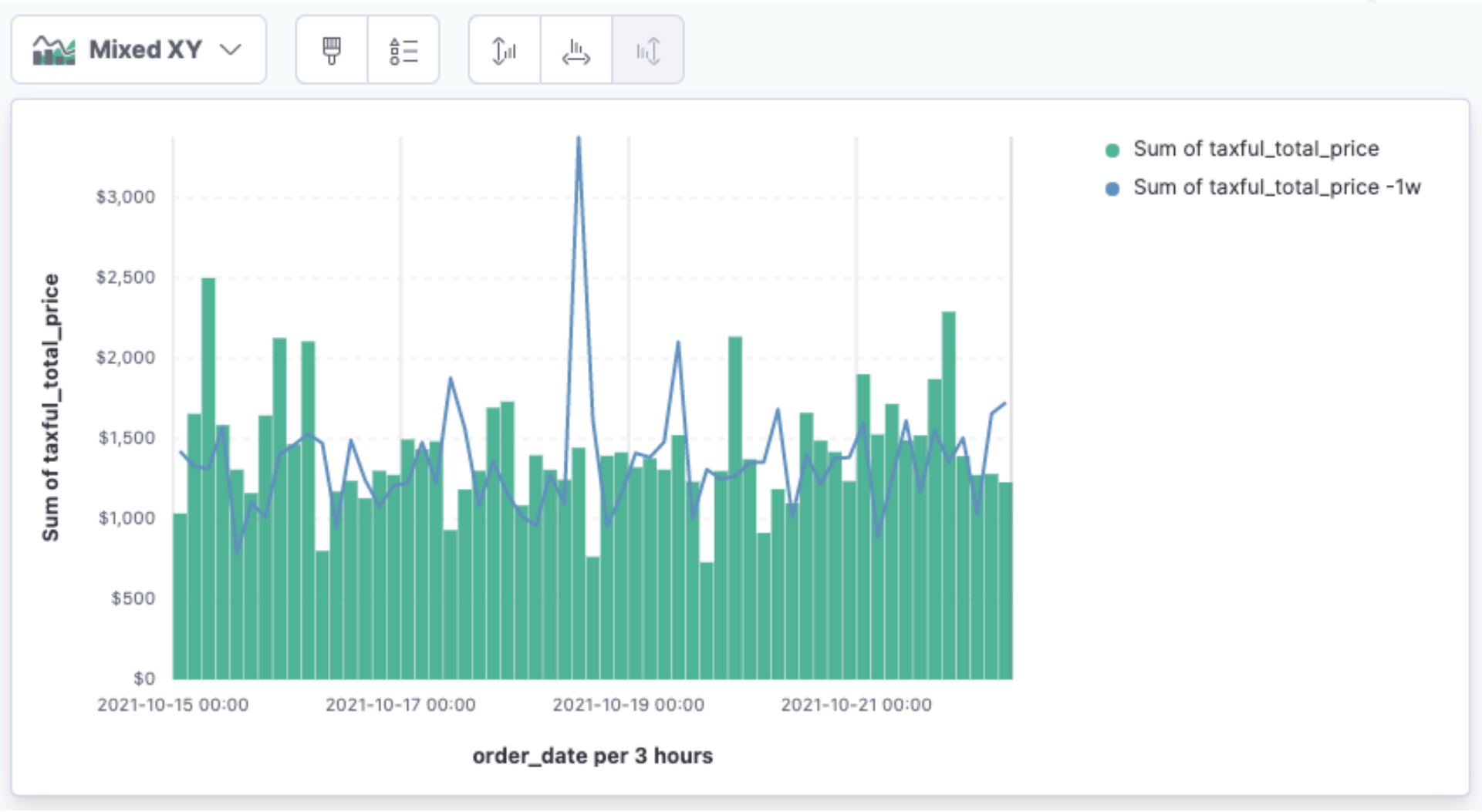




Complex Dashboard

matching **multiple** of **you** in **Single View**

Multi Layer : Visualization



Create Drill Down : Goto Dash Board

elastic

Search Elastic

Dashboard

Editing My-Visualized

Unsaved changes Options Share Save as Switch to view mode Save

Search

+ Add filter

Create visualization All types Add from library

[No Title]

Category	Percentage
New York	23.62%
Cairo Governorate	12.94%
Dubai	12.24%
California	9.29%
Marrakech-Tensift-Al Haouz	9.21%
Other	32.7%

gsm (2).csv

Create Drilldown

Drilldowns enable you to define new behaviors for interacting with panels. You can add multiple actions and override the default filter. [View docs](#)

Action

Go to Dashboard [Change](#)

Name

Go to Dashboard

Choose destination dashboard

☒ Use filters and query from origin dashboard

☒ Use date range from origin dashboard

[Close](#) [Create drilldown](#)

Show All





Thanks