S19 T01: Visualització interactiva amb ElasticSearch Stack – *Eduardo Baffi*

*Descripció**

Comencem a familiaritzar-nos la visualització interactiva de gràfics mitjançant Kibana.

Nivell 1

- Exercici 1

Descarrega't Kibana i mostra algunes gràfiques utilitzant conjunts de dades d'Exemple.

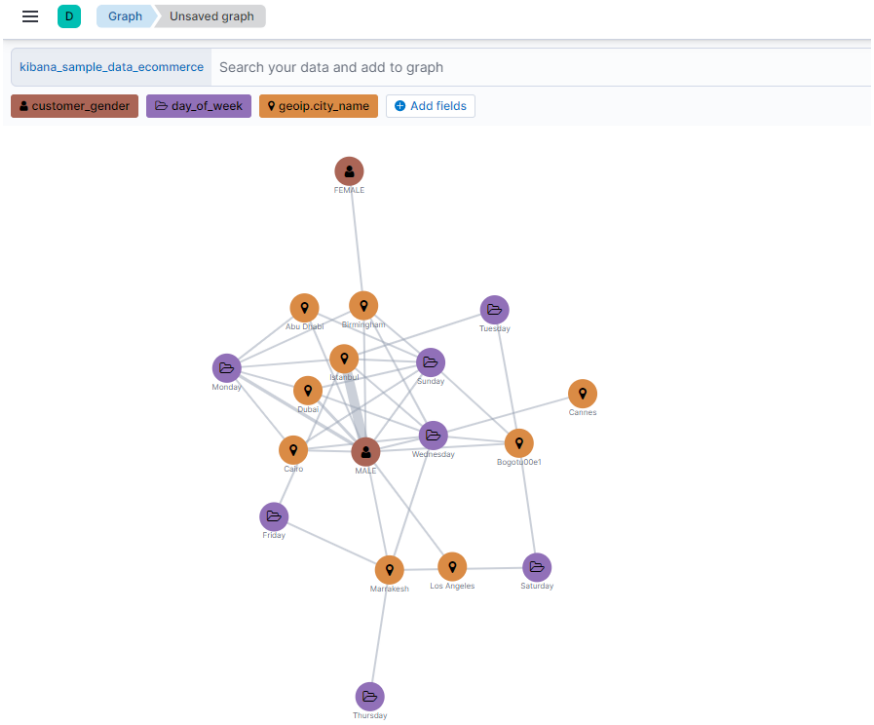
This exercise was done using the cloud solution of Kibana. The following steps were followed:

1. *Create an account to start a free Elastic Cloud trial.*
2. *Create a deployment*
3. *Add sample data sets Create two collections ("car_fleet" and "city").*
4. *Used a sample about eCommerce orders to generate graphs, visualizations, and dashboards to help explore Kibana before adding my own data.*

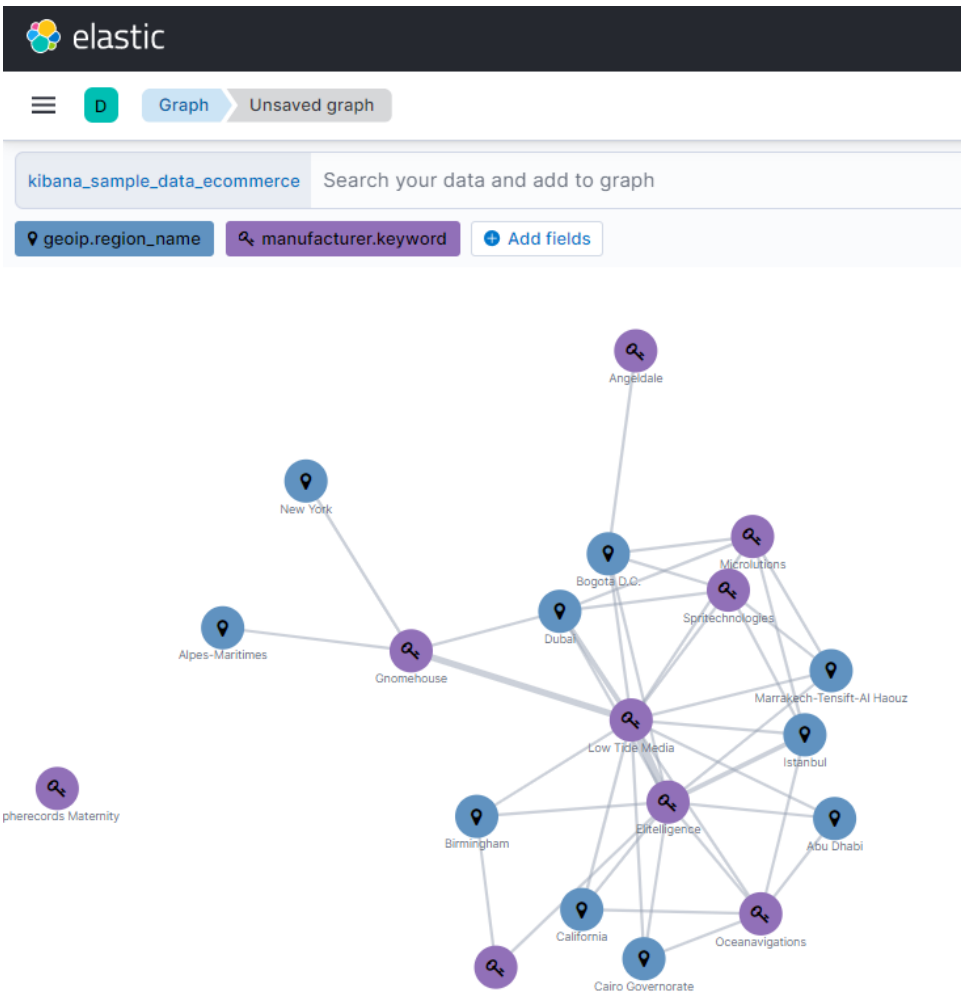
Some screenshots and reports of dashboards and graphs are shown below. The time filter was set to consider data form the last 10 days (between 15/08 and 24/8/2021) of Sample eCommerce Data.

Graphs:

- This graph based on an eCommerce data set shows the gender, day of the week, and city of purchases. The thicker the line is, there are more correlated documents between the vertices.

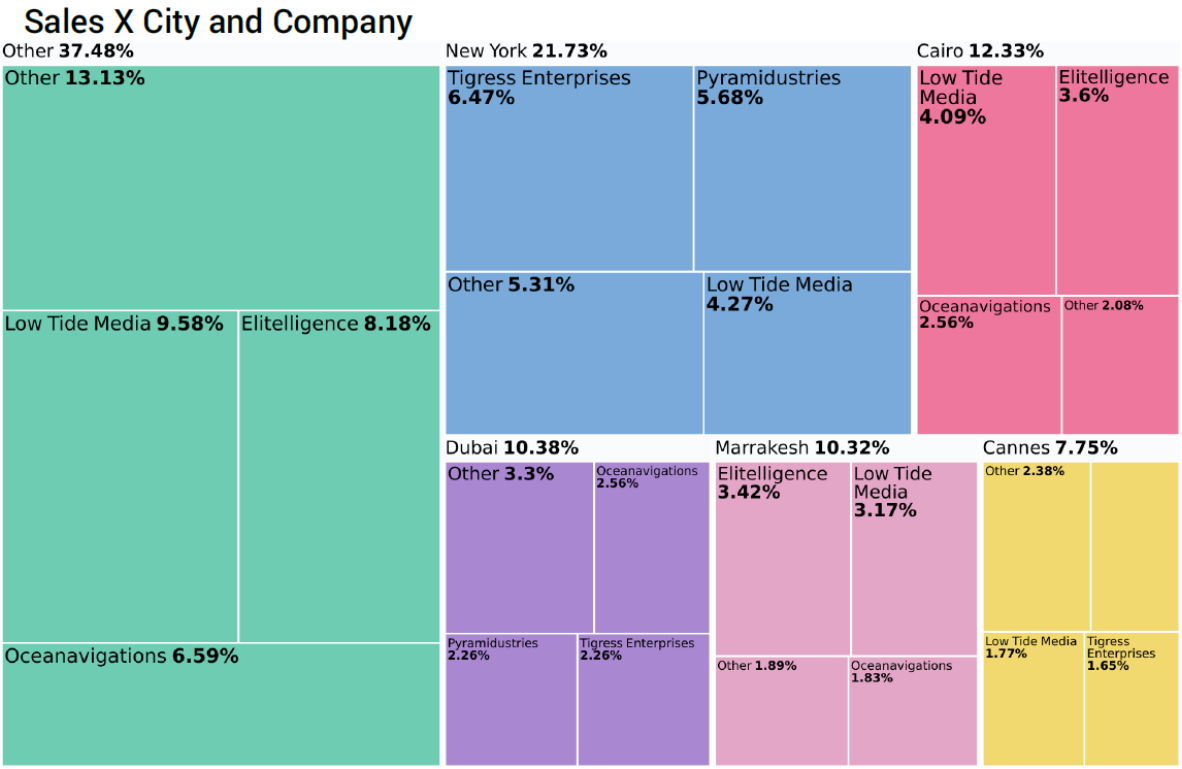


- This graph shows the region and manufacturer keyword of purchases.

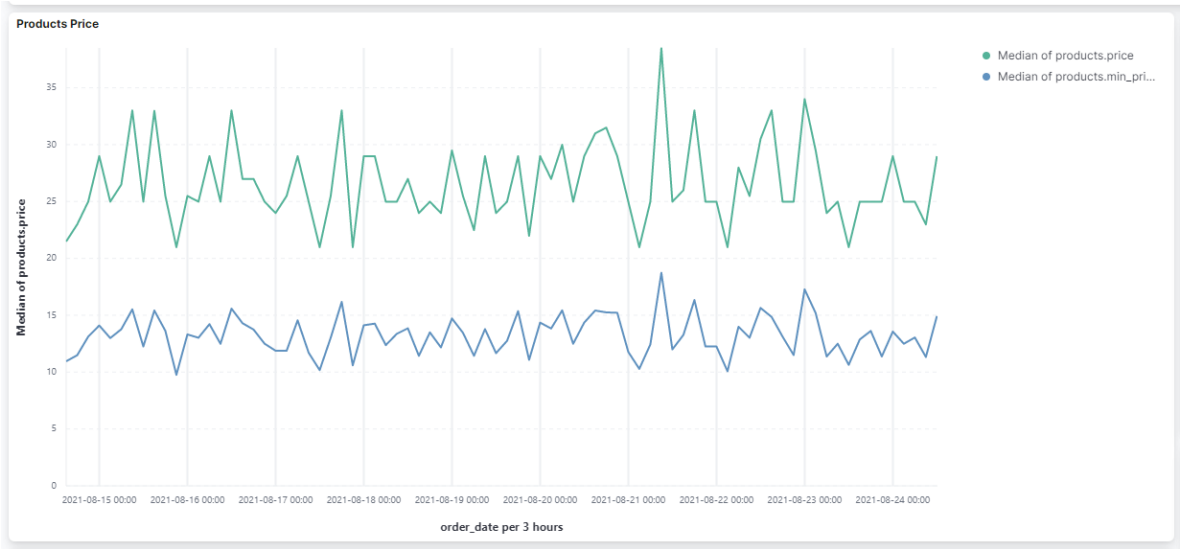


Treemap:

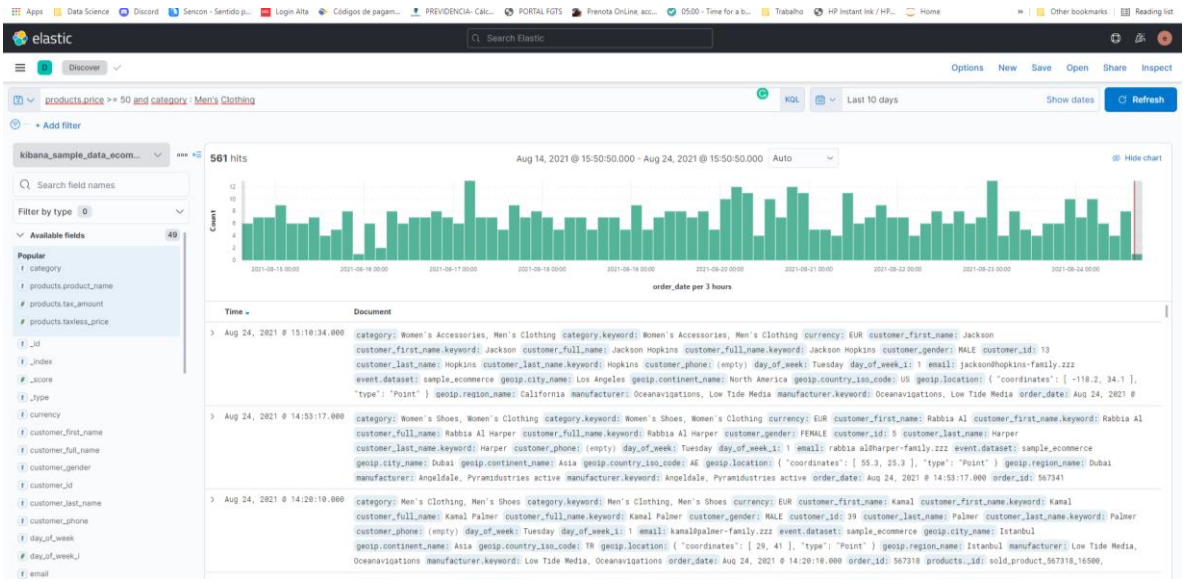
This treemap panel shows the top sales cities and companies (manufacturers):



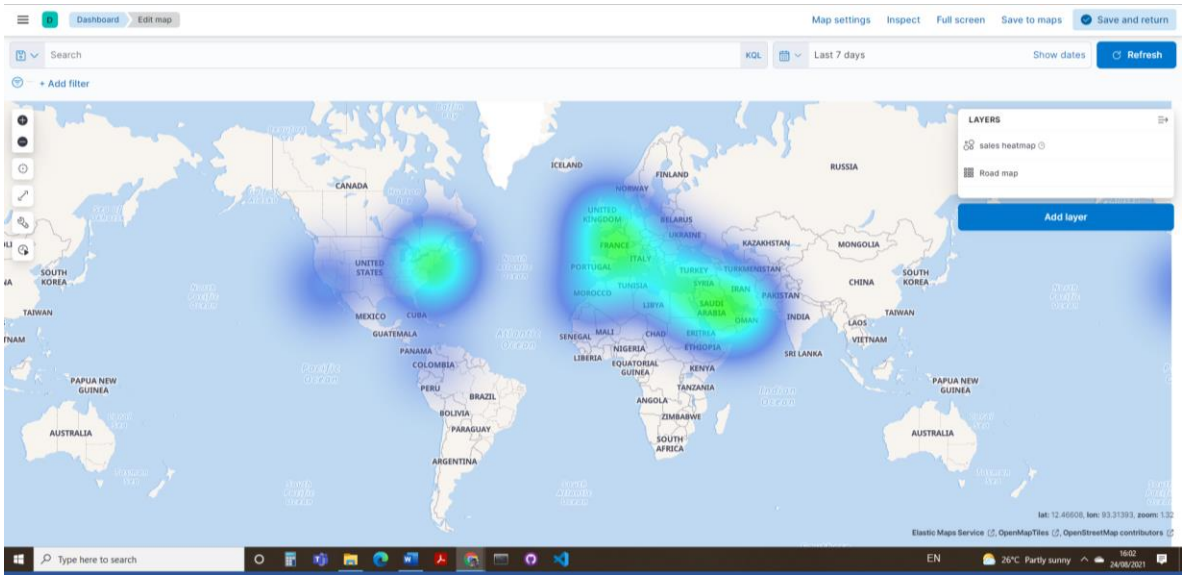
Products Price Graph and other:



Sales orders for men's clothing that are $50 or more (KQL search field**):**

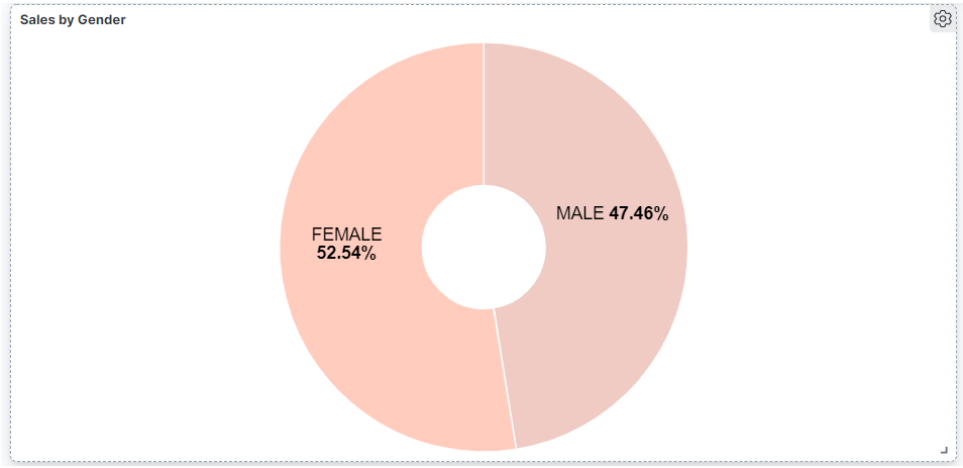


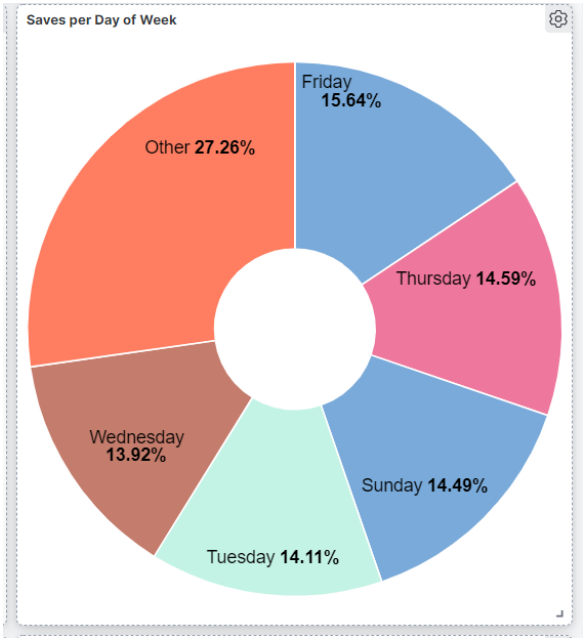
Sales Heatmap:



Some other dashboard information:

Kibana allows the user to view, search, and interact with the visualizations about the available data.





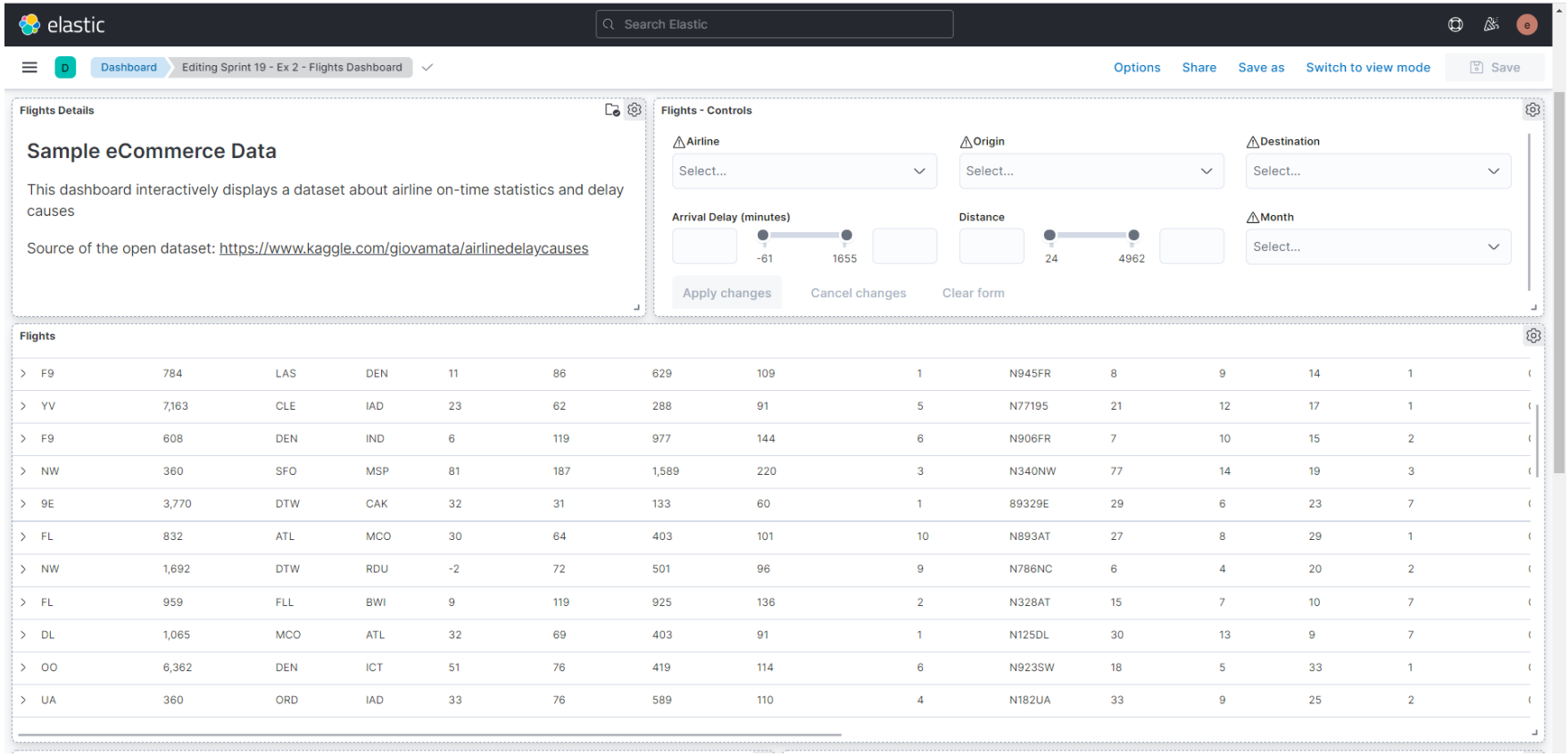
- The dashboard is available here: https://sprint-19-it-academy.kb.eastus2.azure.elastic-cloud.com:9243/goto/41b5ff1bc926250c6a3ee0735b3f817d

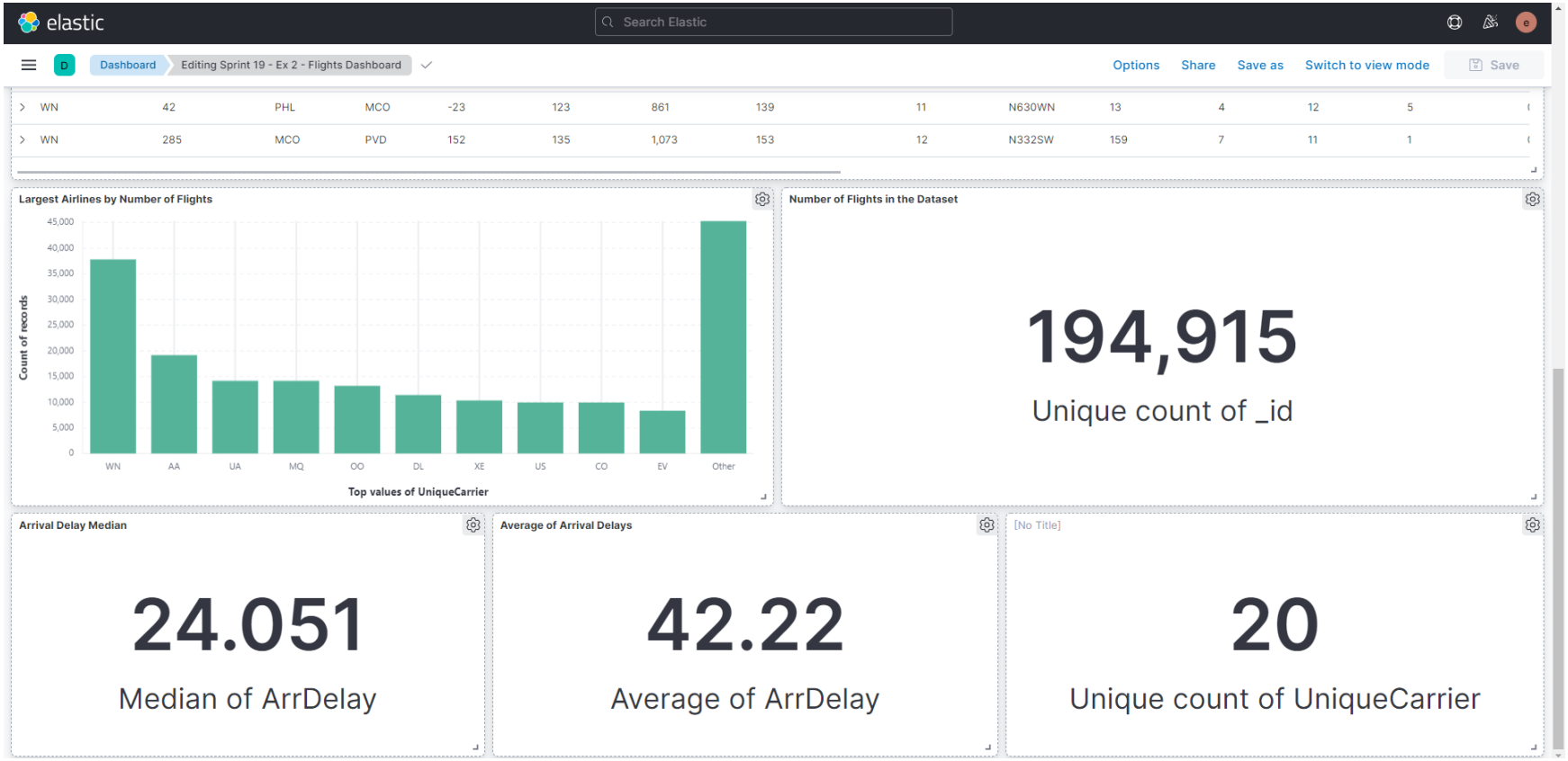
Nivell 2

- Exercici 1: Implementa un dashboard que visualitzi interactivament les dades que triïs.

It was created a dashboard that interactively displays a dataset about airline on-time statistics and delay causes (10% sample of Delayed_Flights.csv). It is possible to control some of features of the dataset.

Source of the open dataset: https://www.kaggle.com/giovamata/airlinedelaycauses





- This dashboard is available here: https://sprint-19-it-academy.kb.eastus2.azure.elastic-cloud.com:9243/goto/93889a852590afbfcbd5b4d5be4dfd52

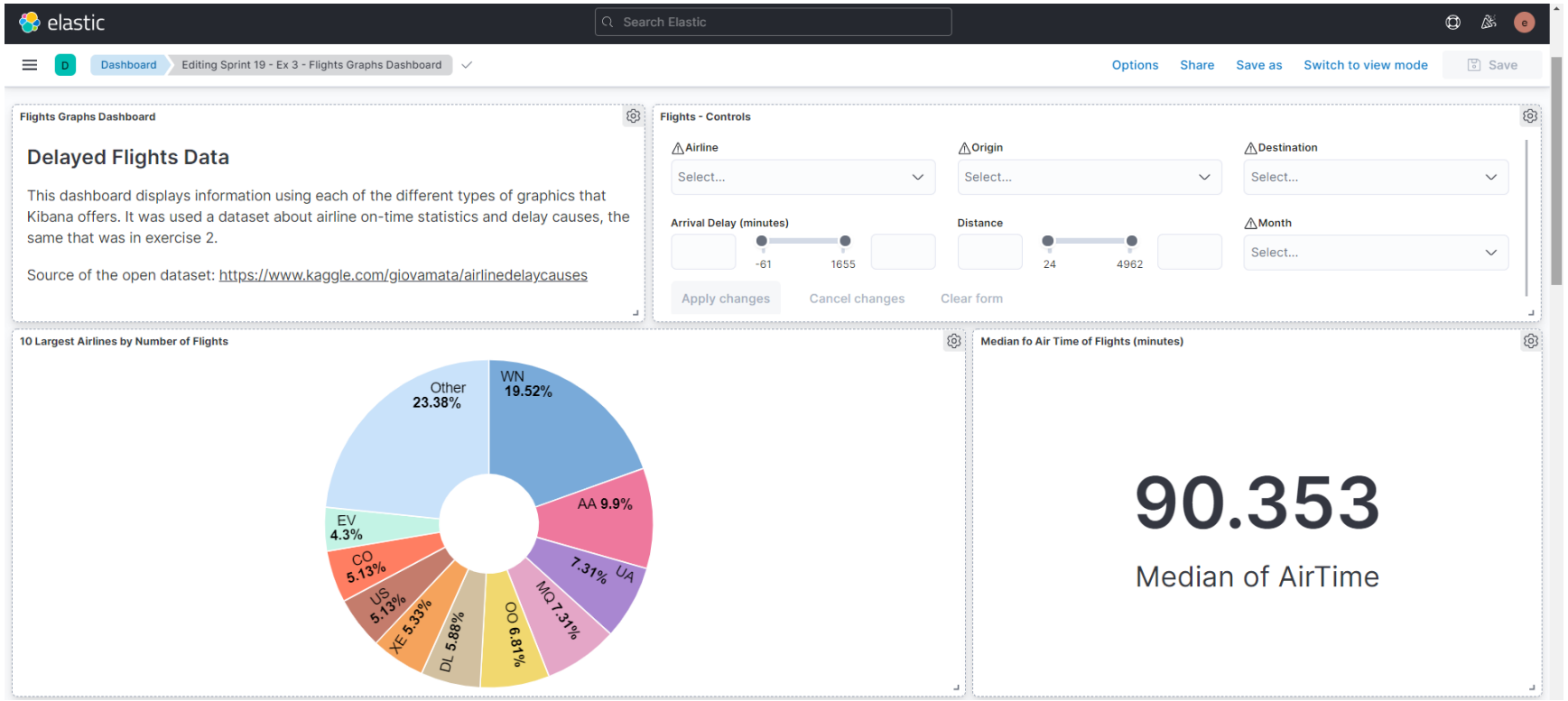
Obs.: The Kibana Cloud was not able to generate PDF or PNG Reports because of the memory limit available for the free trial.

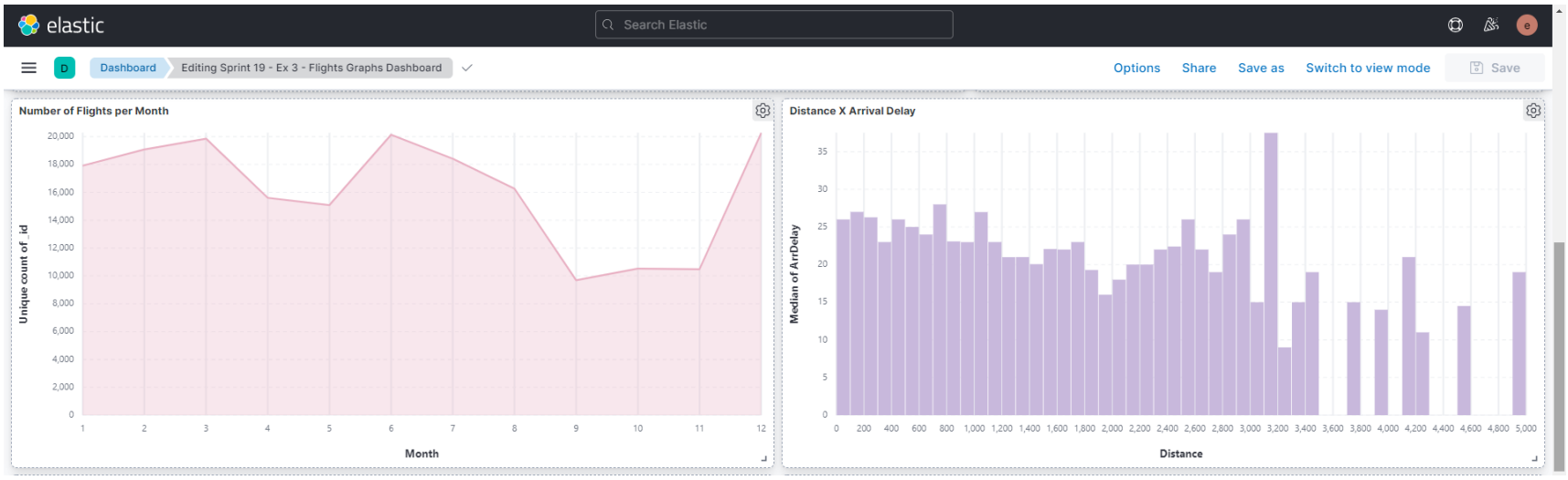
Nivell 3

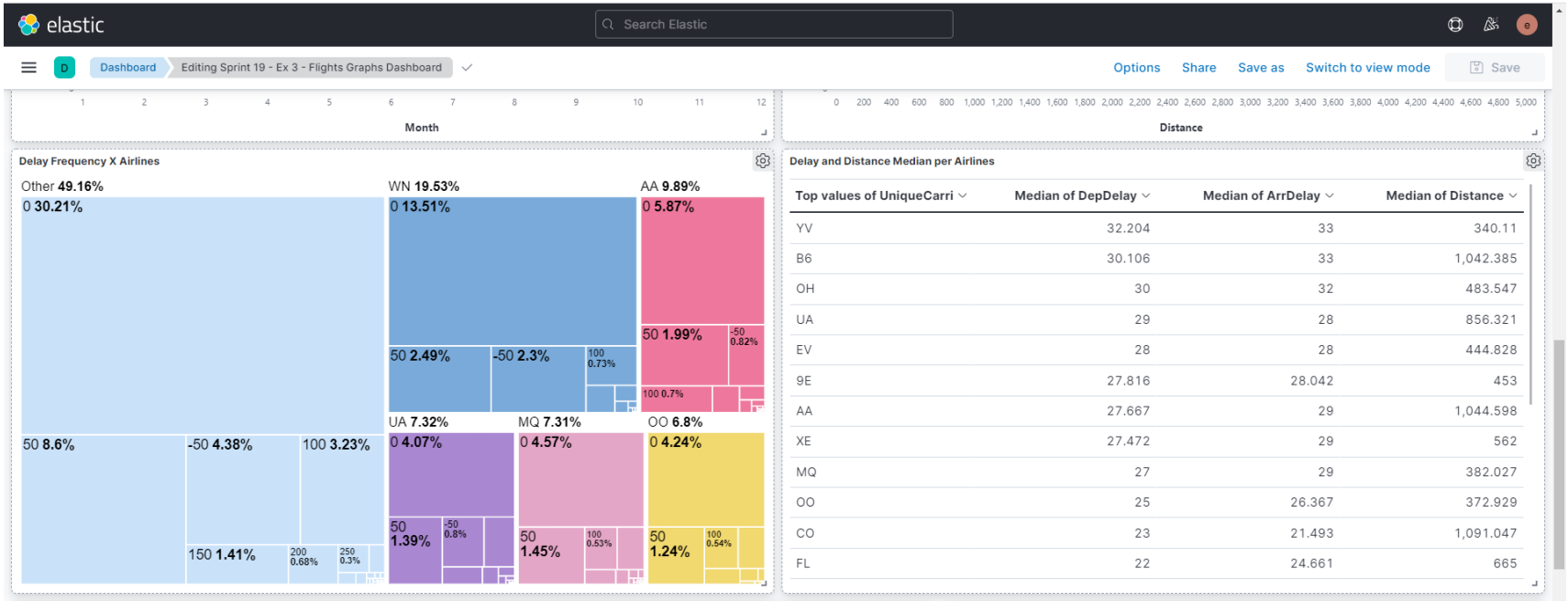
- Exercici 1

Implementa un dashboard que generi gràfics utilitzant cadascun dels diferents tipus de gràfics que ofereix Kibana.

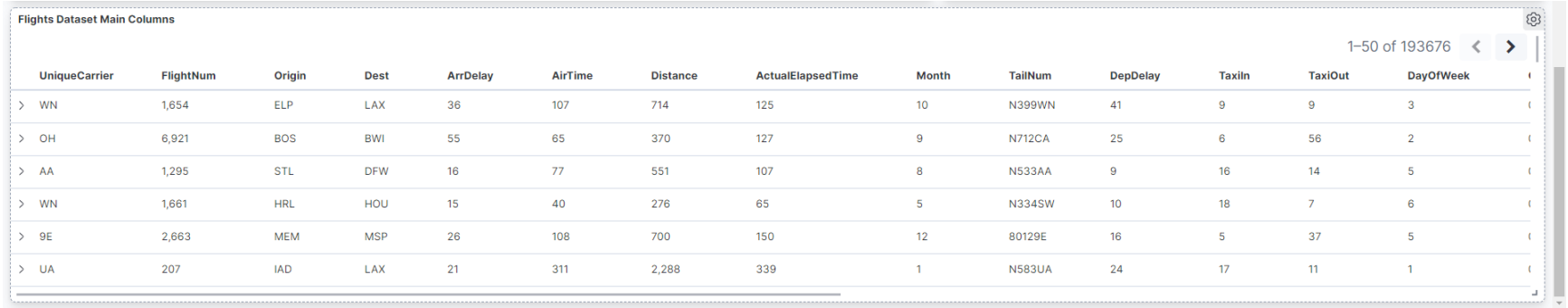
It was created a Kibana dashboard with multiple types of graphics about airline on-time statistics (10% sample of Delayed_Flights.csv). It is also possible to control some of features of the dataset.







Top values of UniqueCarri	Median of DepDelay	Median of ArrDelay	Median of Distance
YV	32.204	33	340.11
B6	30.106	33	1,042.385
OH	30	32	483.547
UA	29	28	856.321
EV	28	28	444.828
9E	27.816	28.042	453
AA	27.667	29	1,044.598
XE	27.472	29	562
MQ	27	29	382.027
OO	25	26.367	372.929
CO	23	21.493	1,091.047
FL	22	24.661	665



UniqueCarrier	FlightNum	Origin	Dest	ArrDelay	AirTime	Distance	ActualElapsedTime	Month	TailNum	DepDelay	TaxiIn	TaxiOut	DayOfWeek
WN	1,654	ELP	LAX	36	107	714	125	10	N399WN	41	9	9	3
OH	6,921	BOS	BWI	55	65	370	127	9	N712CA	25	6	56	2
AA	1,295	STL	DFW	16	77	551	107	8	N533AA	9	16	14	5
WN	1,661	HRL	HOU	15	40	276	65	5	N334SW	10	18	7	6
9E	2,663	MEM	MSP	26	108	700	150	12	80129E	16	5	37	5
UA	207	IAD	LAX	21	311	2,288	339	1	N583UA	24	17	11	1

- This dashboard is available here:
  https://sprint-19-it-academy.kb.eastus2.azure.elastic-cloud.com:9243/goto/07232f5108b433676a46928c71d2bd13

Obs.: Again, the Kibana Cloud was not able to generate PDF or PNG Reports because of the memory limit available for the free trial.