



IRONHACK - DATA

DIAMONDS DATA

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PRESENTACIÓN

DIAMONDS DATA

- Proceso & Stack
- Ejemplos
- Output
- Conclusiones



Funcionamiento del proyecto

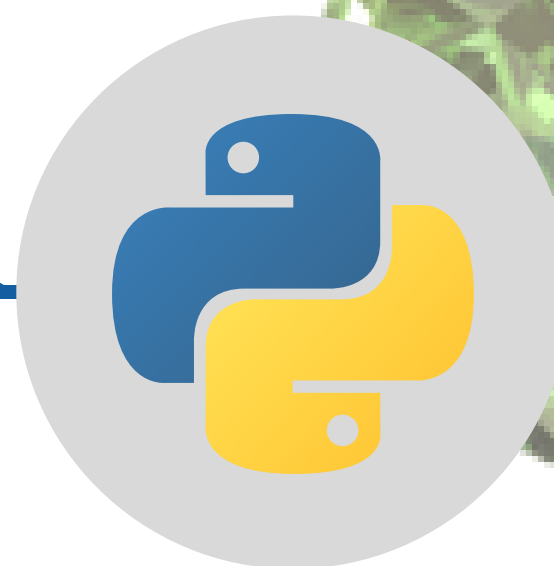


1

Data Extraction

We extract data with DBeaver. We join table in a single dataset

Diamonds_db_SQL.csv

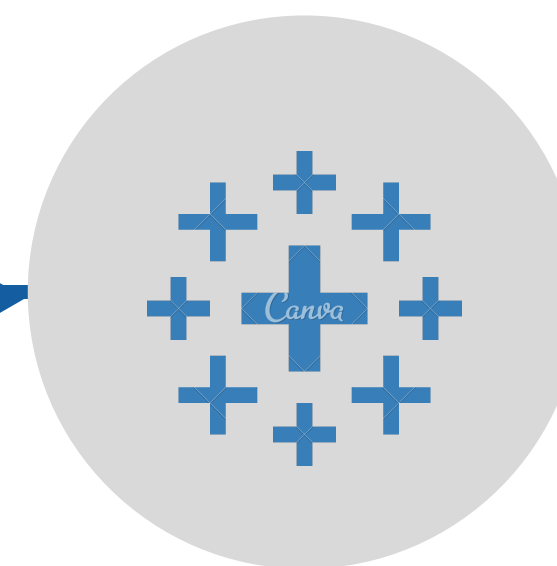


2

Data Wrangling

We add continent column using pandas

Diamonds_db_pandas.csv



3

Visualization

ShowMybike will save a file in your data folder called "location_one.csv" or "location_all.csv"

Public Tableau

Diamonds_db_SQL

The screenshot displays a database management interface with the following components:

- Database Navigator:** Shows the project structure for 'Ironhack_M2', including connections, tables, and columns. The 'diamonds_m2.db' connection is selected, showing tables like 'diamonds_city', 'diamonds_clarity', 'diamonds_color', 'diamonds_cut', 'diamonds_dimensions', 'diamonds_properties', and 'diamonds_transactional'. The 'diamonds_properties' table is expanded, showing columns: 'index_id' (TEXT), 'price' (BIGINT), 'city_id' (TEXT), and 'carat' (FLOAT).
- Script Editor:** Contains a SQL query that joins multiple tables to retrieve diamond information.
- Query Results:** Displays the results of the query in a grid format, showing 11 records with columns: Color, Cut, Clarity, Price, City, Depth, Table, x, y, z, and Carat.

SQL Query:

```
SELECT dp.index_id as "Index-ID", dc2.color as "Color", dc3.cut as "Cut",  
dc.clarity as "Clarity", dt.price as "Price", dc4.city as "City", dd."depth" as "Depth",  
dd."table" as "Table", dd.x as "x", dd.y as "y", dd.z as "z", dt.carat as "Carat"  
FROM diamonds_properties dp  
INNER JOIN diamonds_clarity dc on dc.clarity_id = dp.clarity_id  
INNER JOIN diamonds_color dc2 on dc2.color_id = dp.color_id  
INNER JOIN diamonds_cut dc3 on dc3.cut_id = dp.cut_id  
INNER JOIN diamonds_transactional dt on dt.index_id = dp.index_id  
INNER JOIN diamonds_city dc4 on dc4.city_id = dt.city_id  
INNER JOIN diamonds_dimensions dd on dd.index_id = dp.index_id
```

Query Results:

	Color	Cut	Clarity	Price	City	Depth	Table	x	y	z	Carat
1	J	Premium	VS2	4,268	Dubai	62.4	58	6.83	6.79	4.25	1.21
2	H	Very Good	VS2	505	Kimberly	63	57	4.35	4.38	2.75	0.32
3	G	Fair	VS1	2,686	Las Vegas	65.5	55	5.62	5.53	3.65	0.71
4	D	Good	SI1	738	Kimberly	63.8	56	4.68	4.72	3	0.41
5	G	Ideal	SI1	4,882	Dubai	60.5	59	6.55	6.51	3.95	1.02
6	F	Ideal	SI2	9,057	Tel Aviv	61.2	57	7.45	7.39	4.54	1.52
7	H	Fair	VS2	3,733	Amsterdam	65.2	56	6.23	6.19	4.05	1.01
8	J	Ideal	VS1	8,608	Kimberly	62.3	58	7.32	7.35	4.57	1.52
9	H	Ideal	VS1	557	Zurich	61.8	54.2	4.33	4.37	2.69	0.31
10	G	Ideal	SI1	6,741	Antwerp	61.7	56	6.71	6.75	4.15	1.14
11	E	Premium	SI1	1,040	Las Vegas	62.3	59	4.88	4.84	3.03	0.44

continents.py

Pandas_modules > continents.py > ...

```
1  # Libraries
2  import pandas as pd
3  import numpy as np
4
5  # Import CSV from SQL
6  df_diamonds = pd.read_csv ('/Users/antoniohuerta/ironhack/ih_datamadpt1121_project_m2/db/Diamonds_db_SQL.csv')
7
8  # Obtenemos el listado de valores únicos de la columna city
9  cities = df_diamonds['City'].unique()
10
11 # Creamos un diccionario al que asignamos los continentes:
12
13 country_cont = {'Dubai': 'Asia',
14                 'Kimberly': 'Africa',
15                 'Las Vegas': 'America',
16                 'Tel Aviv': 'Asia',
17                 'Amsterdam': 'Europe',
18                 'Zurich': 'Europe',
19                 'Antwerp': 'Europe',
20                 'Madrid': 'Europe',
21                 'Paris': 'Europe',
22                 'Surat': 'Asia',
23                 'Luxembourg': 'Europe',
24                 'London': 'Europe',
25                 'New York City': 'America'
26                 }
27
28 # Insertamos una columna con el continente
29 df_diamonds['Continent'] = df_diamonds['City'].map(country_cont)
30 # Exportamos el csv
31 df_diamonds.to_csv(r'/Users/antoniohuerta/ironhack/ih_datamadpt1121_project_m2/db/Diamonds_db_pandas.csv', index = False)
32
```

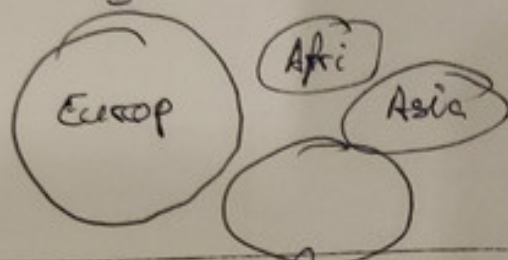

Sketching

Geographical & Market.

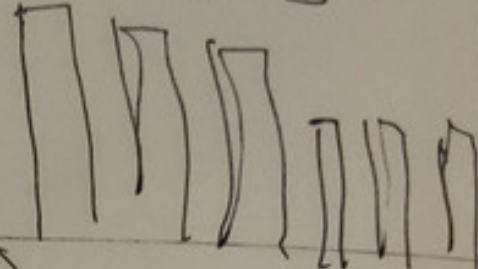
Total Diamonds

Total Sales

Contingent



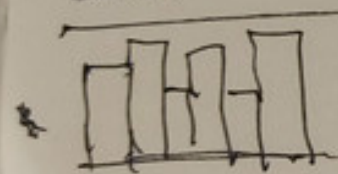
Units by City



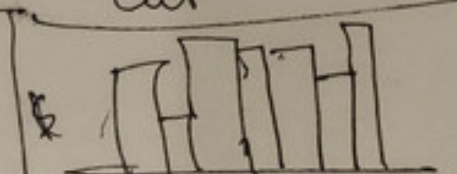
Sales analysis (cont)

Sales by

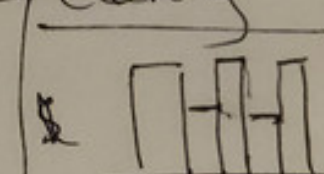
Color



Cut

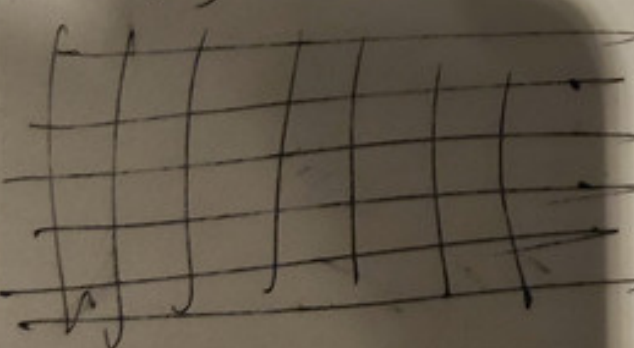


Clarity

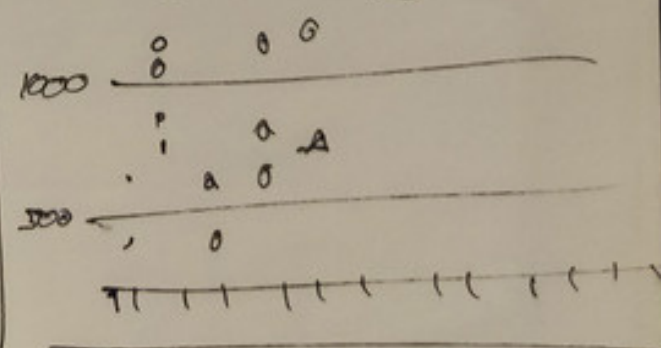


Prices

Clarity & Cut



Clarity Price by Color



Analisis 1 Europa 1

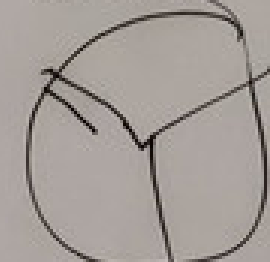
Total Dia

Total €

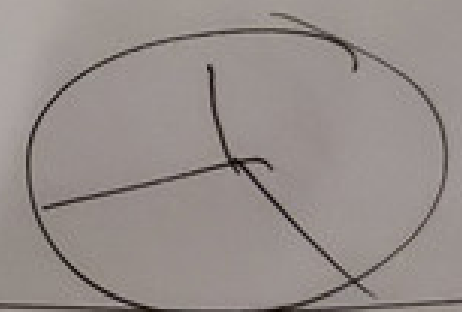
ventas
€/ciudades



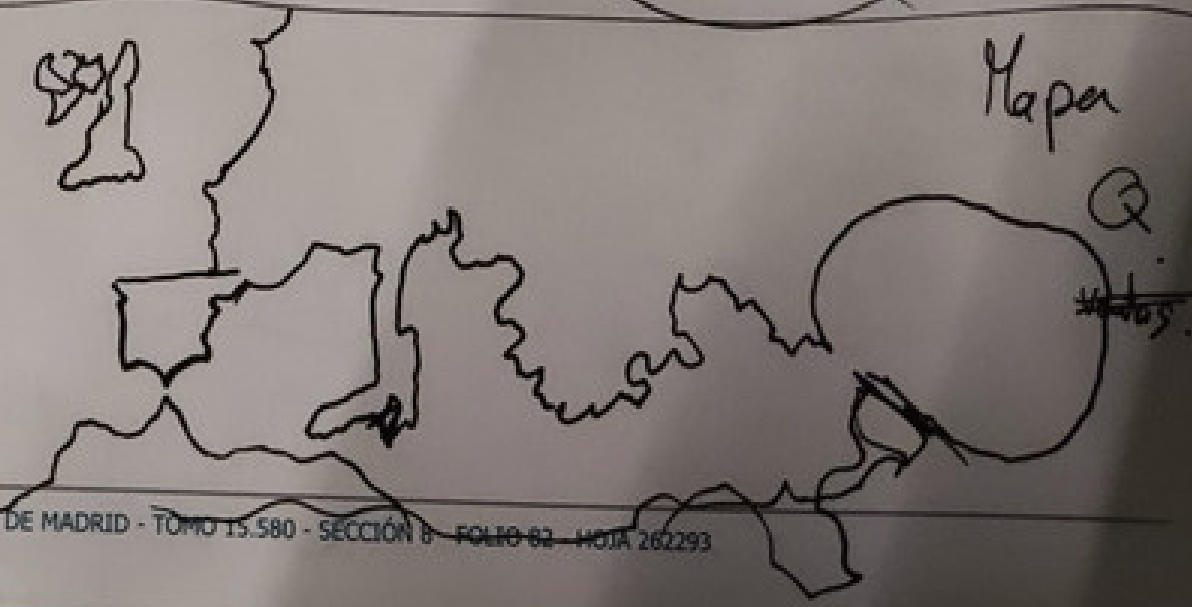
Color



Clarity



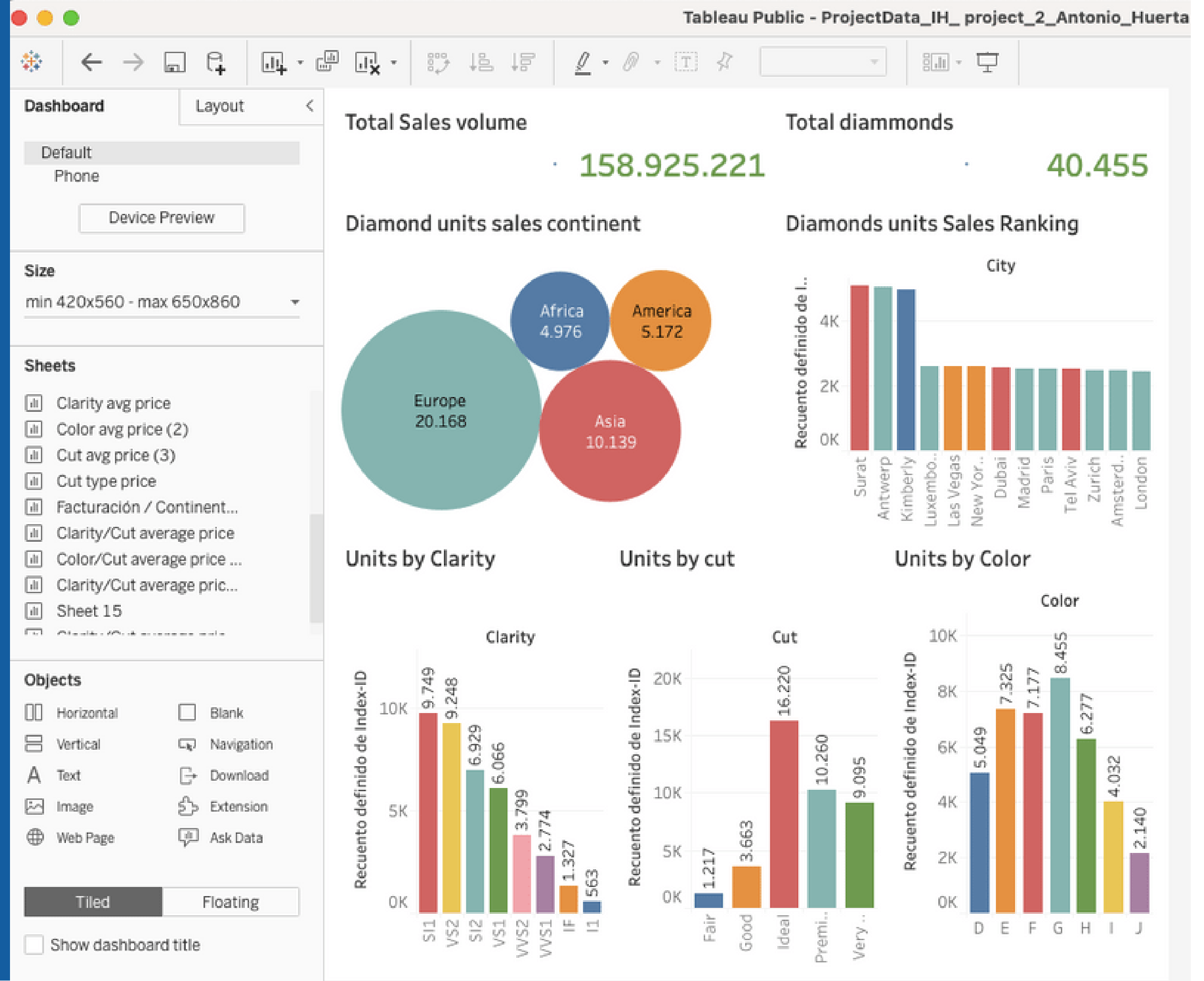
Mapa



España

- F 91 748 90 90
net

Tableau



Conclusiones Dashboard

GEOGRAPICAL DISTRIBUTION

- En Europa se realizan el doble de transacciones que en Asia, y cuatro veces más que África y Asia.
- Surat, Amberes y Kimberly son las tres ciudades con mayor volumen de ventas, más del doble que las 10 restantes.

CLARITY, CUT, COLOR

- SI1 es el Clarity que más ventas tiene con un total de 9747 uds, tan sólo 500 unidades más que VS2.
- El color G es el más demandado con 8455 uds, seguido de cerca por el D y el F con 7325 y 7177 respectivamente.
- Cut "Ideal" es el más demandado por los usuarios.

AVERAGE PRICES

Dentro del corte "Ideal", Los Color D tienen un precio medio más bajo (2588) seguidos de E (2625) y F (3284).

Por otro lado el Cut "Premium" tiene los precios medios más altos en sus variantes de color J (6377) e I (6023)

CRITERIOS DE PROPIEDAD

El color D tiene los precios medios más altos excepto en las variedades de corte "Ideal" y "Fair".

La combinación de Clarity SI2 y Color I es el valor más estable en precios medios, independientemente de su Cut



¡GRACIAS!

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