Insights Analyst
Main Assessment

2022

Part I – SQL/Data Handling (~1h 15min)

Requirements

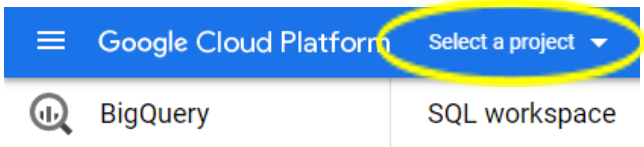
- Please note that you need a gmail (or **google-based**) **account** to complete the assessment, so you have to create if not use an existing one.
- **Download** the **orders.csv** file. This is a dummy dataset with basic information regarding efood orders of January 2022.

Set up BigQuery (~15min)

We are mainly using the Standard SQL of BigQuery. Once you have logged in to your google-based account, you can access the BigQuery platform following the Link to BQ.

1. Create a **project** named **efood2022**

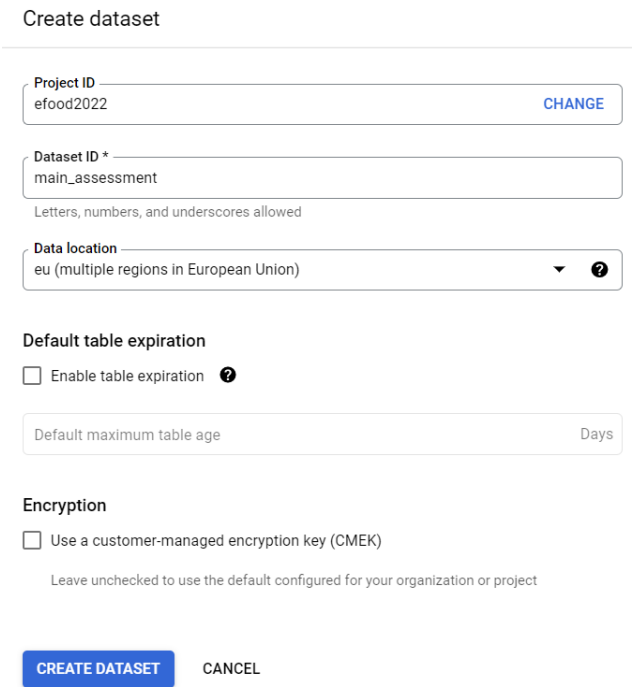
   Click on "Select a project" and Create New.



2. Add a **dataset** named **main_assessment**

   Click on the 3 bullets next to efood2022 name and select create dataset.

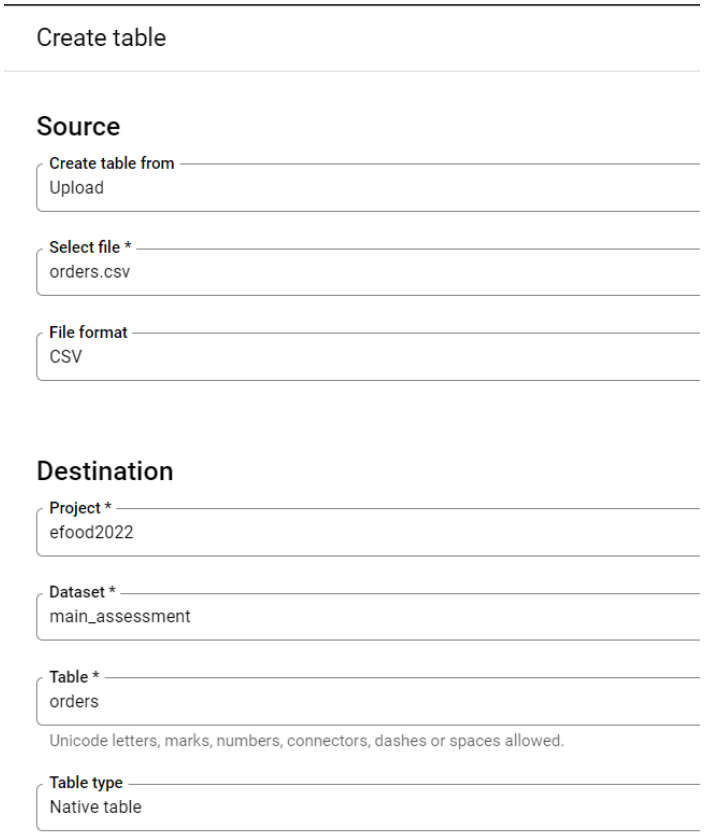
   Window like screenshot appears where you set the dataset name and location in Europe (eu) and press on the blue button.



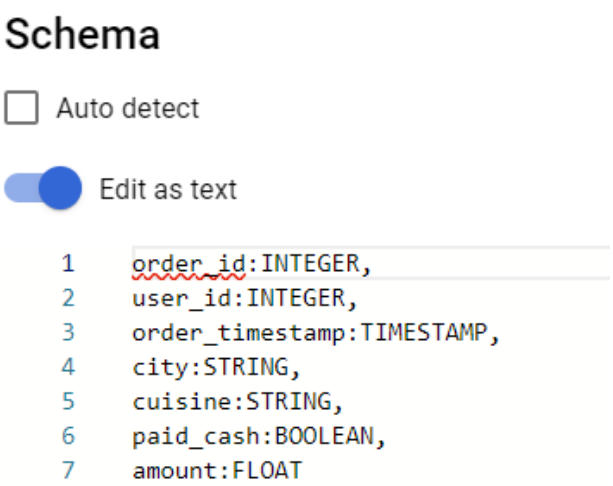
3. Add a **table** named **orders**

Click on the 3 bullets next to main_assessment and select Create table.

WIndow appears like in the screenshot where you choose to **upload** the orders.csv you downloaded before.

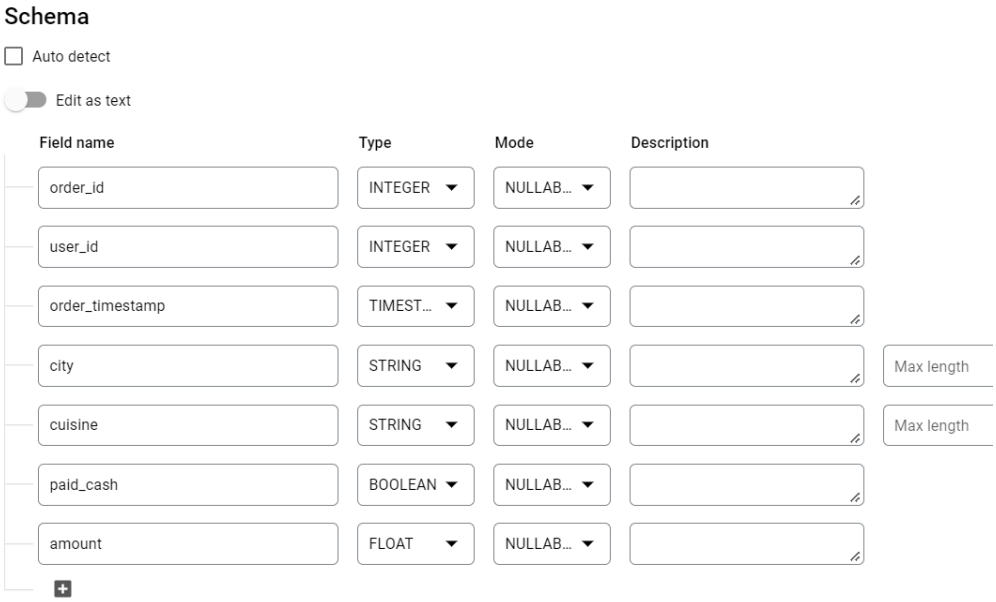


Choose to **edit as text** and paste the schema included in the following gray pane, as shown in the screenshot.

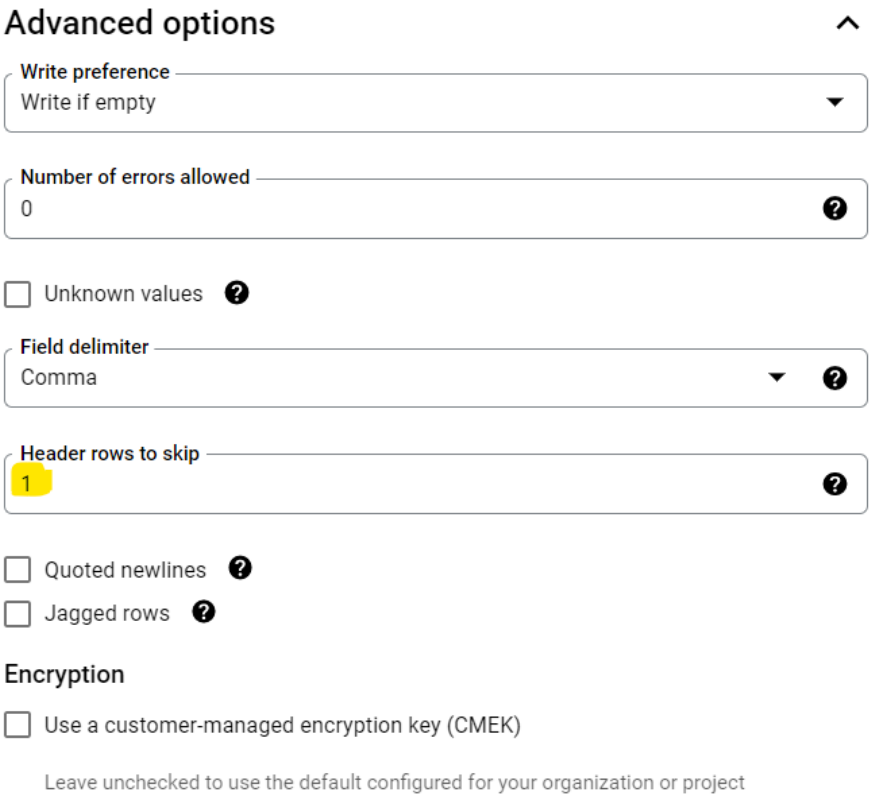



```
order_id:INTEGER,
user_id:INTEGER,
order_timestamp:TIMESTAMP,
city:STRING,
cuisine:STRING,
paid_cash:BOOLEAN,
amount:FLOAT
```

When clicking on Edit as text again you see the table schema as in screenshot



Finally, in Advanced options we set Header Rows to Skip to 1, as CSV has a header that doesn't follow table's schema and that couldn't allow its creation.



4. Once setup finished you are able to query on the table created (ie. using the following query or pressing query button from the UI)

```
SELECT *

FROM `efood2022.main_assessment.orders`
```

Query #1 (~35min)

We want to focus on Breakfast cuisine in smaller cities of Greece.

For every city that exceeds the 1,000 orders we would like to compare "**Breakfast**" cuisine **versus** the **total efood**, creating the metrics:

- **Basket** := Amount / Order
- **Frequency** := Orders / Users
- **%Users that exceed 3 orders** := (Users of Frequency >3) / Users

Order **all** your findings, showing us the **5 cities** with the most **Breakfast Orders** and explain them in a few words.

Your end result could have namings of your preference, additional columns and formats but should look like the table below:

Row	city	breakfast_basket	efood_basket	breakfast_freq	efood_freq	breakfast_users3freq_perc	efood_users3freq_perc
1	Βόλος	5.12778625116582	8.084162184472904	3.732746262543518	4.430481741813818	0.3064714314970305	0.38847934167666726
2	Λάρισα	5.40447655719148	8.906952073743598	3.0960729312762973	3.845662803332126	0.2391304347826087	0.3396414342629482
3	Ξάνθη	4.887138754672236	7.232082548936313	4.271417445482866	5.35396120082367	0.34559968847352024	0.4311260431342798
4	Ιωάννινα	5.755508066011544	9.117966368504588	3.1150902527075814	4.031314868631754	0.2571841155234657	0.3643318901607259
5	Ρόδος	6.248684741851732	10.312610486891403	3.715173596228033	4.547736441057822	0.30561508786969566	0.391304347826087

Query #2 (~25min)

What percentage of Orders do the **top 10 users of each city** contribute to their city?

Submitting a solution

Please, create a public **Github** repo and store your SQL queries.

Part II - Analyze Users (~6 hours)

- ➔ We need to segment existing customers based on their *frequency* and *order* value.
- ➔ Ordering Breakfast via efood is a quite new habit that Marketing thinks could create more loyal customers. Which segment could be a valuable target group for a Marketing campaign about "Breakfast" cuisine_parent?

Use the provided csv or the table you've created, create user segments, answer the business question, and prepare your findings for sharing with the C-Level and Business Intelligence team members. Your findings could be presented in a Visualization tool of your choice, or through PowerPoint or Excel etc.

Submitting a solution

Please, create a new file in the public **Github** repo you created for **Part I**, that will contain:

- ➔ *all* the *code* and
- ➔ the *instructions* to *run* it

Within efood (and Delivery Hero in general) we use **Python** (3.x), **R** and **SQL** so we suggest preferring them before using another programming stack; still, you can use ***whatever*** suits you but due to our knowledge limitations we will only be able to verify if it works 100% or it fails.

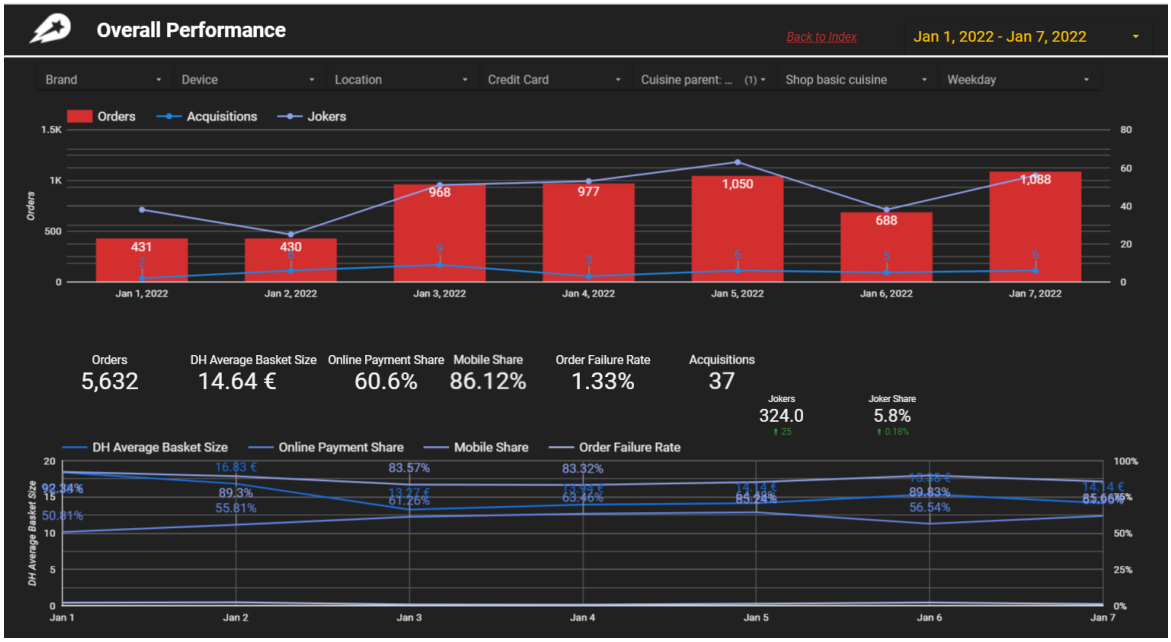
Reply via email sharing your repo link and presentation/visuals/comments.

Part III - Visualization (~15 minutes)

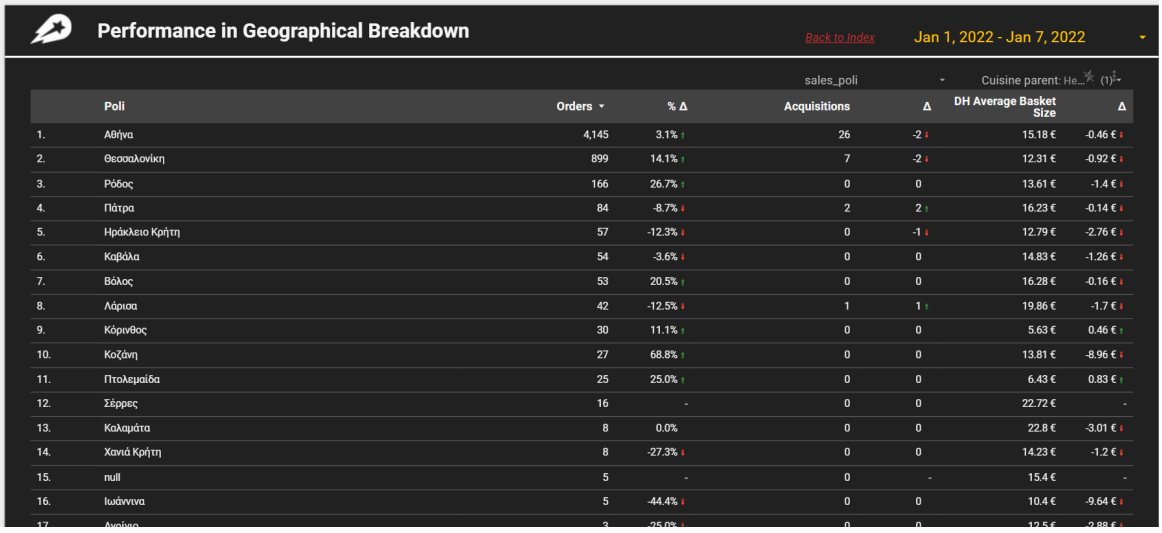
Please find screenshots taken from 2 slides of a dummy Dashboard, that gives an overview of efood Performance to the C-level Management.

- Write your comments about the existing layout and suggest improvements.
- What is the outcome you gained from these slides?

Cover Slide



Geographic breakdown



	Poli	Orders	% Δ	Acquisitions	Δ	DH Average Basket Size	Δ
1.	Αθήνα	4,145	3.1%	26	-2	15.18 €	-0.46 €
2.	Θεσσαλονίκη	899	14.1%	7	-2	12.31 €	-0.92 €
3.	Ρόδος	166	26.7%	0	0	13.61 €	-1.4 €
4.	Πάτρα	84	-8.7%	2	2	16.23 €	-0.14 €
5.	Ηράκλειο Κρήτη	57	-12.3%	0	-1	12.79 €	-2.76 €
6.	Καβάλα	54	-3.6%	0	0	14.83 €	-1.26 €
7.	Βόλος	53	20.5%	0	0	16.28 €	-0.16 €
8.	Λάρισα	42	-12.5%	1	1	19.86 €	-1.7 €
9.	Κόρινθος	30	11.1%	0	0	5.63 €	0.46 €
10.	Κοζάνη	27	68.8%	0	0	13.81 €	-8.96 €
11.	Πτολεμαΐδα	25	25.0%	0	0	6.43 €	0.83 €
12.	Σέρρες	16	-	0	0	22.72 €	-
13.	Καλαμάτα	8	0.0%	0	0	22.8 €	-3.01 €
14.	Χανιά Κρήτη	8	-27.3%	0	0	14.23 €	-1.2 €
15.	null	5	-	0	-	15.4 €	-
16.	Ιωάννινα	5	-44.4%	0	0	10.4 €	-9.64 €
17.	Αγρίνιο	3	-25.0%	0	0	12.5 €	-2.88 €

Contact

You can send an email to d.kouvari@e-food.gr, gmouratos@e-food.gr with any questions you have. It goes without saying that this assessment is handed over as a real case so you are expected to work as you would in your normal work life (eg search the Nets, reference books etc); as always keep in mind to **cite** anything that is considered a “loan”.