Cultigo Webinar

Powerful Data Analysis with Google Sheet

Presented by **Ari Sulistiyo Prabowo**

#dataanalyticscultigo

Profile

Professional

- Marketing Data Analyst Manager – B2B Company (2021 – Present)
- Founder – Cultigo (2021 – Present)
- Senior Data Analyst – Kompas (2021)
- Data Scientist – Rukita (2020 – 2021)
- Research Assistant Analyst – Ensterna (2017 – 2019)

Ari Sulistiyo Prabowo

Connect with me

https://www.linkedin.com/in/ariprabowo/

https://dataimpact.medium.com/

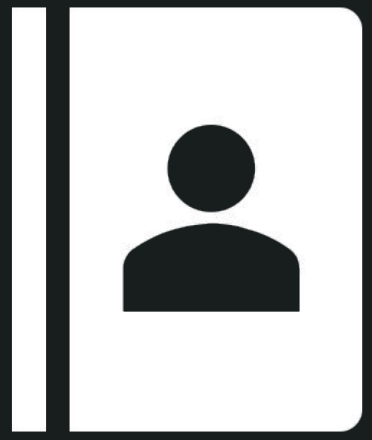
https://github.com/densaiko

What will you get today?

- Google Sheet Overview & Why Google Sheet?
- What Data Analyst do in Google Sheet
  - Data summary with Pivot Table
  - Importing data from other Google Sheets
  - Data aggregation with Query and other formulas
  - Creating data visualization to get various information
- Practice makes you perfect
  - Executing pivot table,

    data visualization, and query (if it is needed)

#dataanalyticscultigo



Google Sheet Overview

Data Analytic Overview

What is Google Sheet?

Google sheet is a web-based spreadsheet program to handle data analysis

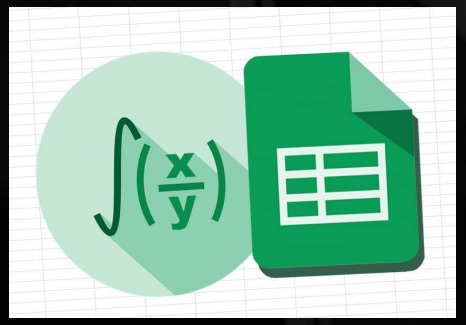
Why Google Sheet?

- Collaborative spreadsheet in the community and FREE
- Due to its collaborative feature, people can modify and check the findings
- Could be a small database to be connected to Business Intelligence tools

Google Data Studio, Power BI, Tableau, and more

Google Sheet in Data Analysis

Google Sheet in Data Analysis



Data Aggregation with Formula

Google Sheet to Google Sheet

Pivot Table

Data Visualization

Example Data

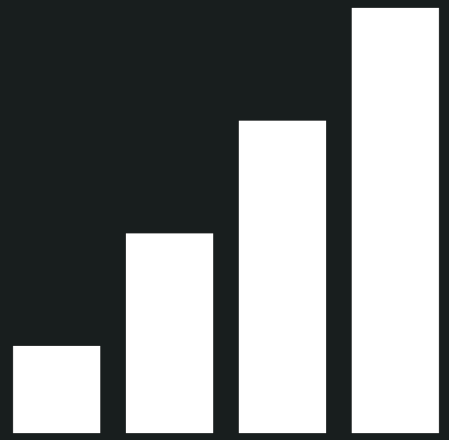
Example Data

OLX is marketplace is a platform for buying and selling services and goods such as electronics, fashion items, furniture, household goods, **cars** and bikes

Dataset : Citibike NYC

Let’s play with OLX data which focuses on car:

- Lookup data from one sheet to another sheet
- Import other data sources to be combined into one spreadsheet
- Calculate the total of revenue from “Mobil Bekas”
- Data visualization to show total of revenue in each day in Oct 2018
- Pivot data to get the total of car dealer in each product in 2018
- Total of car dealer in each product using query



Data Aggregation with Formula

Data Aggregation with Formula

1	time_id	item_id	customer_id	category_id	price
2	9/1/2018	489143051	357694632	474401	83000000
3	9/1/2018	489161002	358526837	477905	3350000
4	9/1/2018	489167744	357814405	472913	165000000
5	9/2/2018	489288945	358543797	474401	129000000
6	9/2/2018	489294452	358138873	477665	3400000
7	9/2/2018	489300305	358370605	474401	230000000
8	9/2/2018	489301141	358330545	474401	148000000
9	9/2/2018	489326240	357976625	474401	98000000
10	9/3/2018	489426473	357871162	474401	109000000
11	9/3/2018	489452858	357681321	474401	92000000
12	9/3/2018	489470411	358505845	472913	155000000
13	9/3/2018	489476785	357302735	476177	14950000
14	9/4/2018	489577154	358012792	474401	438000000
15	9/4/2018	489597506	357406643	474401	175000000
16	9/4/2018	489608041	357976625	474305	75000000
17	9/4/2018	489643115	357235616	473729	35000000
18	9/5/2018	489689960	357835396	474080	450000

category_id	Category_Name
474401	Mobil
477905	Elektronik & Gadget
472913	Mobil
474401	Mobil
477665	Elektronik & Gadget
474401	Mobil
474401	Mobil
474401	Mobil
474401	Mobil
474401	Mobil
472913	Mobil
476177	Motor
474401	Mobil
474401	Mobil
474305	Mobil
473729	Mobil
474080	Mobil

Selected row

```
=iferror(arrayformula(VLOOKUP(D2:D,'category table'!$A$2:$B,2,false)))
```

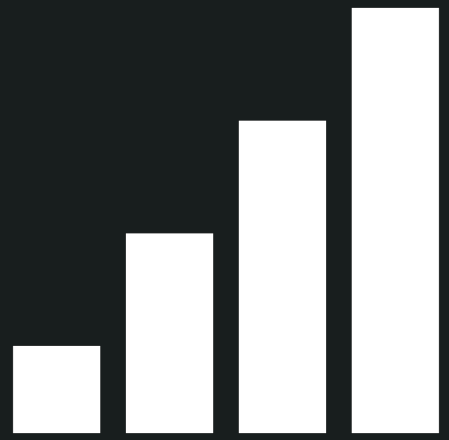
Selected sheet and its data

From ”listing table” has an information such as 10,778 various cars from 1,000 different customer that the total value of cars around Rp. 2.3 Trillion

```
=COUNTUNIQUE(B2:B10779)
```
→ To calculate various cars

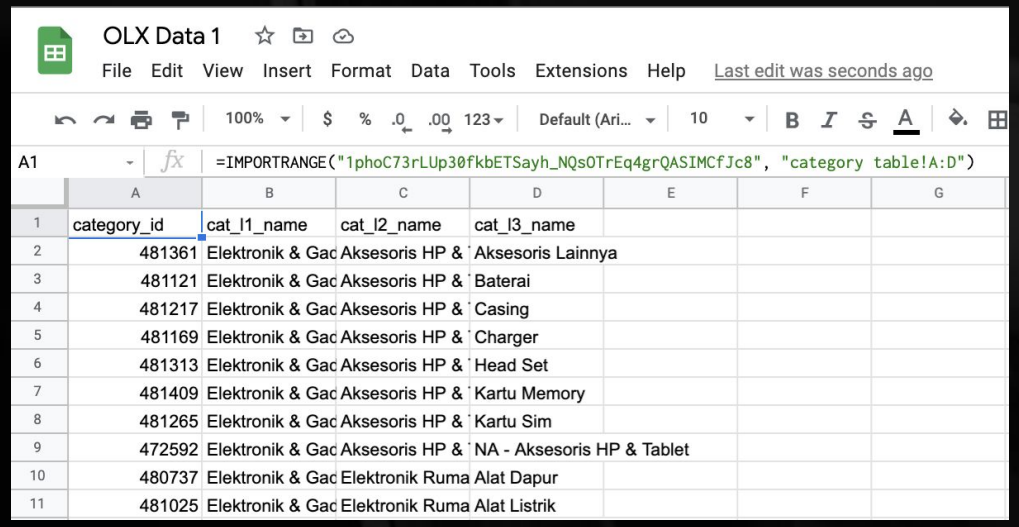
```
=COUNTUNIQUE(C2:C10779)
```
→ To calculate different customers

```
=SUM(E2:E10779)
```
→ Total value of cars



Import Data from Another Google Sheet

Import Data from Another Google Sheet



	A	B	C	D	E	F	G
1	category_id	cat_l1_name	cat_l2_name	cat_l3_name			
2	481361	Elektronik & Gad	Aksesoris HP &	Aksesoris Lainnya			
3	481121	Elektronik & Gad	Aksesoris HP &	Baterai			
4	481217	Elektronik & Gad	Aksesoris HP &	Casing			
5	481169	Elektronik & Gad	Aksesoris HP &	Charger			
6	481313	Elektronik & Gad	Aksesoris HP &	Head Set			
7	481409	Elektronik & Gad	Aksesoris HP &	Kartu Memory			
8	481265	Elektronik & Gad	Aksesoris HP &	Kartu Sim			
9	472592	Elektronik & Gad	Aksesoris HP &	NA - Aksesoris HP & Tablet			
10	480737	Elektronik & Gad	Elektronik Ruma	Alat Dapur			
11	481025	Elektronik & Gad	Elektronik Ruma	Alat Listrik			

Code is inside the url

```
=IMPORTRANGE("1phoC73rLUp30fkbETSayh_NQsOTrEq4grQASIMCfJc8", "category table!A:D")
```

Name of sheet and its column

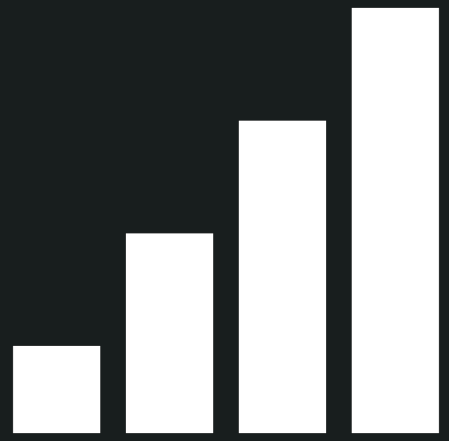

Pivot Table

Pivot Table

Category_Name	SUM of price
Mobil	Rp1,453,103,196,439
Properti	Rp843,939,494,999
Motor	Rp6,295,508,172
Keperluan Pribadi	Rp3,367,636,055
Elektronik & Gadget	Rp2,656,653,600
Kantor & Industri	Rp2,183,997,605
Hobi & Olahraga	Rp596,637,000
Rumah Tangga	Rp114,934,500
Jasa & Lowongan Kerja	Rp50,065,500
Perlengkapan Bayi & Anak	Rp17,608,999
Grand Total	**Rp2,312,325,732,869**

Step by step:

1. Block the area of the data
2. In the menu bar, click insert Pivot Table
3. Choose your desired location of your pivot
4. Drag category_name in rows
5. Drag price in values



Query in Google Analytic

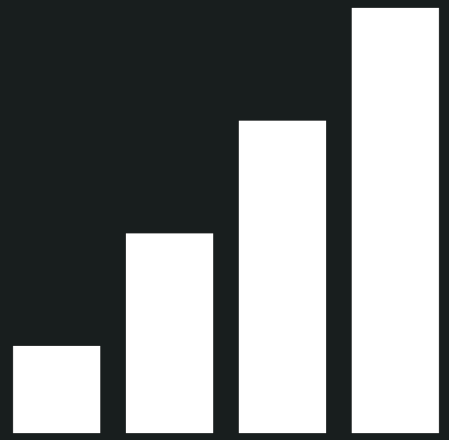
Query in Google Analytic

Category_Name	Total Revenue
Mobil	Rp1,453,103,196,439
Properti	Rp843,939,494,999
Motor	Rp6,295,508,172
Keperluan Pribadi	Rp3,367,636,055
Elektronik & Gadget	Rp2,656,653,600
Kantor & Industri	Rp2,183,997,605
Hobi & Olahraga	Rp596,637,000
Rumah Tangga	Rp114,934,500
Jasa & Lowongan Kerja	Rp50,065,500
Perlengkapan Bayi & Anak	Rp17,608,999

Blok the data

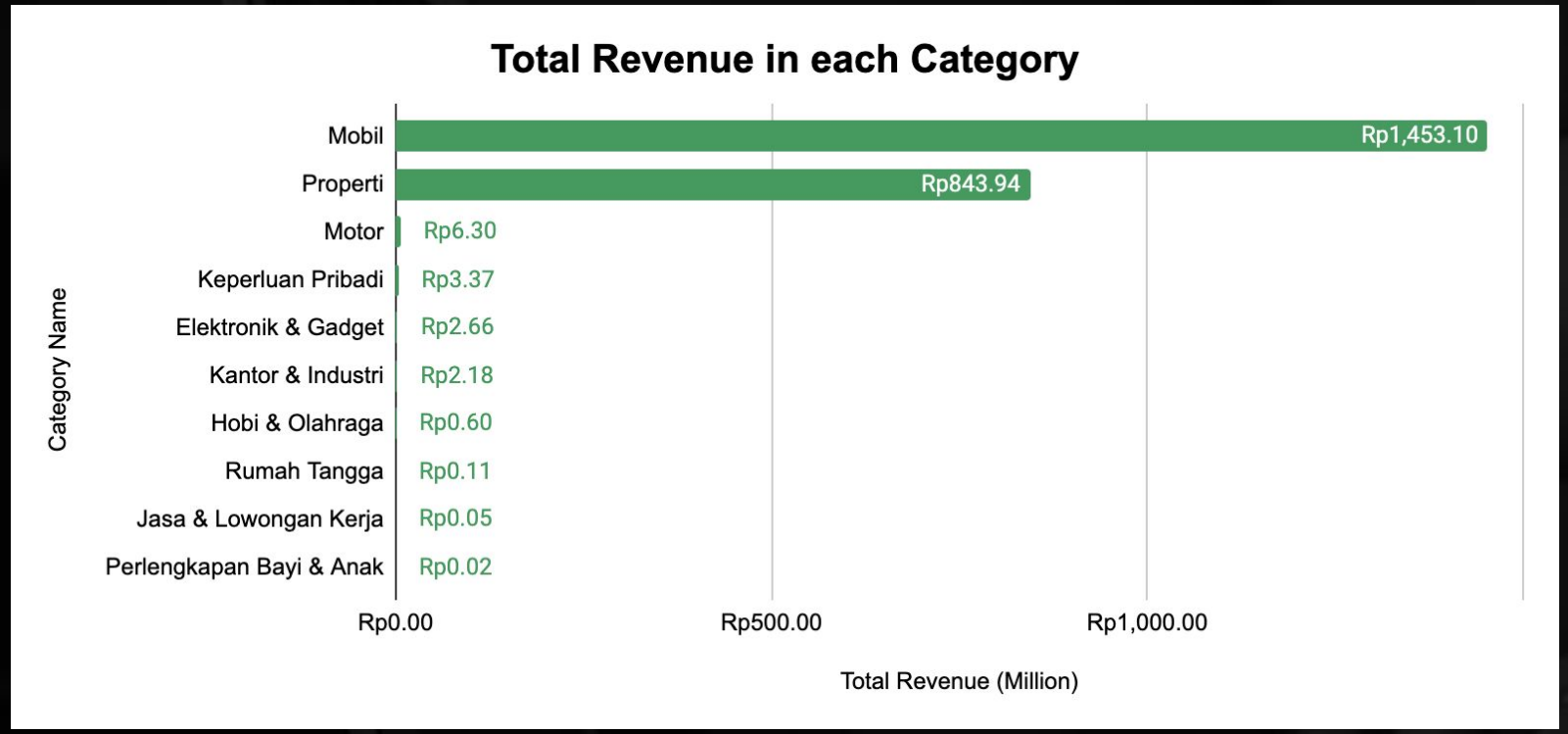
Query syntax

```
=QUERY('listing table'!E1:F,"SELECT E, SUM(F) WHERE E IS NOT NULL GROUP BY E
                                ORDER BY SUM(F) DESC LABEL SUM(F) 'Total Revenue'")
```



Data Visualization

Data Visualization



From Pivot Table to Data Visualisation

Case in the Industry

Case in the Industry

Assuming, you are a consultant to work with electric bike in the downtown.

They need you:

- Provide the overall data (total stations, bike availability, and trip durations)
- Provide top stations by the trips

  Which user mostly use
- How is the current situation of user use the bike from starting station to ending station

Cultigo Webinar

Thank You

Presented by **Ari Sulistiyo Prabowo**

#dataanalyticscultigo