

KPIs (Sales, Quantity Sold, and Orders)

To begin our analysis, we aim to calculate key Key Performance Indicators (KPIs) that will provide an overview of the business's performance between January and June 2023. These KPIs include total sales, quantity sold and the number of orders placed between **January and June 2023**.

```
1  sql sorguar
2  -- to check KPIs (Sales, Quantity Sold, and Orders)
3
4  SELECT
5      round(SUM(unit_price * transaction_qty) )AS total_sales,
6      round(SUM(transaction_qty) ) AS total_qty_sold,
7      round(COUNT(transaction_id)) AS total_orders
8  FROM transactions;
```

Data Output Messages Graph Visualiser X Notifications

	total_sales double precision	total_qty_sold double precision	total_orders double precision
1	698812	214470	149116

From the analysis above, it can be seen that the coffee shop received 149,116 orders in 2023. This resulted in over 214 thousand units of products sold, generating a total revenue of \$698,812.

- **Product categories by revenue**

```
14  SELECT
15  product_category,
16  round(SUM(transaction_qty * unit_price) )AS total_revenue
17
18  FROM transactions
19  group by product_category|
20  order by 2 desc;
```

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	product_category text	total_revenue double precision
1	Coffee	269952
2	Tea	196406
3	Bakery	82316
4	Drinking Chocolate	72416
5	Coffee beans	40085
6	Branded	13607
7	Loose Tea	11214
8	Flavours	8409
9	Packaged Chocolate	4408

From the above analysis **Coffee, Tea, Bakery categories** contribute the most to the total sales but " **Pacakage Chocolate** is the least performing category.

- **Top 5 best-selling products by quantity sold**

```

22 SELECT
23     product_type,
24     round(SUM(transaction_qty) ) AS total_qty_sold
25 FROM transactions
26 group by 1
27 order by 2 desc
28

```

	product_type text	total_qty_sold double precision
1	Brewed Chai tea	26250
2	Gourmet brewed coffee	25973
3	Barista Espresso	24943
4	Brewed Black tea	17462
5	Hot chocolate	17457

Brewed Chai Tea is the most sold product, and apart from the coffee and tea category, **Hot Chocolate** is a product type that stands out with a different category. It may be useful to take into consideration when organizing campaigns for customers regardless of the categories.

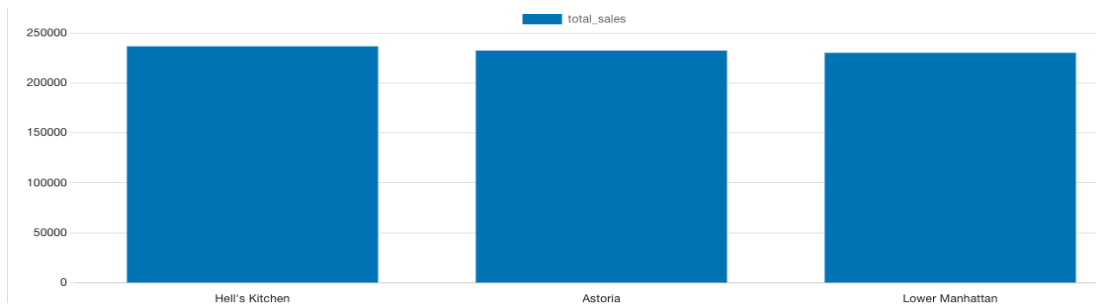
- **Store location by Total sales**

```

31 SELECT
32     store_location,
33     round(SUM(transaction_qty * unit_price)) AS total_sales,
34     100 * SUM(transaction_qty * unit_price) /
35         SUM(SUM(transaction_qty * unit_price)) OVER (), 2 AS percent_of_total_sales
36 FROM transactions
37 group by 1
38 order by 2 desc;
39

```

	store_location text	total_sales double precision	?column? double precision	percent_of_total_sales integer
1	Hell's Kitchen	236511	33.84473339215418	2
2	Astoria	232244	33.234088757420416	2
3	Lower Manhattan	230057	32.921177850425416	2



Each store generated over \$200,000 in sales. **“Hell’s Kitchen”** led the way with \$236,511, accounting for 33.8% of total sales.

- **Average unit price by product category**

```

42 SELECT
43   store_location,
44   product_category,
45
46   avg(unit_price) AS avg_unitprice
47 FROM transactions
48 group by 1,2
49 order by 3 desc;

```

	store_location text	product_category text	avg_unitprice double precision
1	Hell's Kitchen	Coffee beans	21.507083333333327
2	Lower Manhattan	Coffee beans	20.981073446327677
3	Astoria	Coffee beans	20.35697211155378
4	Astoria	Branded	19.559139784946236
5	Lower Manhattan	Branded	16.72779369627507
6	Hell's Kitchen	Branded	16.319327731092436
7	Astoria	Packaged Chocol...	9.906454545454555
8	Lower Manhattan	Loose Tea	9.339238845144376
9	Astoria	Loose Tea	9.284883720930253
10	Hell's Kitchen	Loose Tea	9.198659793814437

The products in the top three categories have an average price of \$20, and the product with the highest unit price appears to be coffee beans, with price differences depending on the branch.

17 Time Series & Trend Analysis

- *Total sales by months*

```
85 SELECT
86     EXTRACT(MONTH FROM transaction_date) AS month,
87     SUM(transaction_qty * unit_price) AS total_sales
88 FROM transactions
89 GROUP BY month
90 ORDER BY 2 desc
```

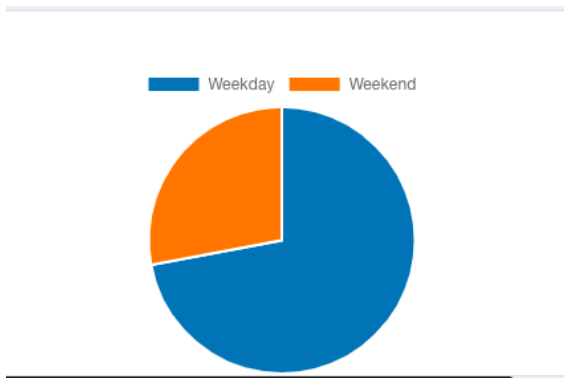
	month numeric	total_sales double precision
1	6	166485.87999999945
2	5	156727.76000000042
3	4	118941.07999999988
4	3	98834.67999999981
5	1	81677.73999999932
6	2	76145.18999999946

There is an upward trend in sales throughout the months, except for a decline in sales in **February**.

- *Weekday and Weekend Sales*

```
94 SELECT
95     CASE
96         WHEN EXTRACT(DOW FROM transaction_date) IN (0, 6) THEN 'Weekend'
97         ELSE 'Weekday'
98     END AS day_type,
99     ROUND(SUM(transaction_qty * unit_price)::numeric, 2) AS total_revenue,
100     count(transaction_qty) AS transaction_count,
101     ROUND(AVG(transaction_qty * unit_price)::numeric, 2) AS avg_revenue_per_transaction
102 FROM transactions
103 GROUP BY day_type
104 ORDER BY day_type;
```

	day_type text	total_revenue numeric	transaction_count bigint	avg_revenue_per_transaction numeric
1	Weekday	503587.54	107510	4.68
2	Weekend	195224.79	41606	4.69



Most of the sales occur on **weekends**. In addition, the highest sales of the month were achieved in the **"Hell's Kitchen"** store on the 13th day of the month.

- **Peak hours for sales**

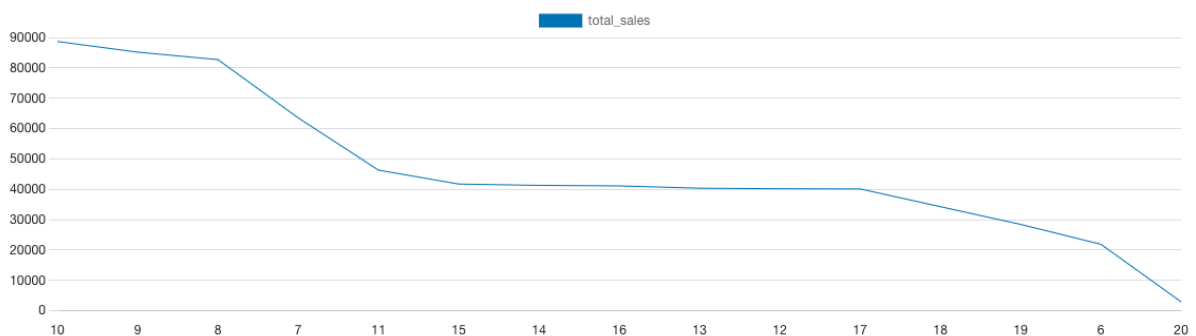
```

117 SELECT
118     DATE_PART('hour', transaction_time::time) AS hour_of_day,
119     SUM(transaction_qty * unit_price) AS total_sales
120 FROM transactions
121 GROUP BY 1
122 ORDER BY 2 desc;

```

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	hour_of_day double precision	total_sales double precision
1	10	88673.390000000044
2	9	85169.529999999994
3	8	82699.87
4	7	63526.469999999946
5	11	46319.139999999974
6	15	41733.099999999979
7	14	41304.739999999981
8	16	41122.749999999977
9	13	40367.449999999988
10	12	40192.789999999986
11	17	40134.3099999999874
12	18	34286.200000000004
13	19	28446.680000000005
14	6	21900.269999999964
15	20	2935.639999999997



Orders seem to peak between **7am - 10am**. The highest sales traffic occurs at 10am, then begins to decline, reaching its lowest point around 8pm.



Product Performance

- Product type by **average price** and **quantity sold**

```
147 SELECT
148     product_type,
149     avg (unit_price) AS avg_unit_price,
150     round(SUM(transaction_qty) ) AS total_qty_
151 FROM transactions
152 GROUP BY product_type
153 order by 2 desc,3 desc ;
154
```

	product_type text	avg_unit_price double precision	totalQty_sold double precision
1	Premium Beans	34.02827380952381	406
2	Clothing	27.8868778280543	221
3	Organic Beans	20.287951807228914	420
4	Gourmet Beans	18.57377049180328	366
5	House blend Beans	18	183
6	Espresso Beans	17.430250783699027	319
7	Housewares	13.448669201520913	555
8	Drinking Chocolate	10.255789473684207	266
9	Green beans	10	134
10	Chai tea	9.709367945823905	443

The product with the highest unit price is **“Premium Beans”** and it makes a very high contribution to the coffee shop's income by selling 496 units. **Chai Tea**, on the other hand, is the product with the lowest unit price, but its sales amount is 443 units, which is a very high number, and as seen in the above analyses, the tea category was the second category that made the highest contribution to the total sales.

- Average revenue per product type in each store location?**

The product with the highest average revenue in the "Astoria" store is Premium Beans with \$32, while in the "Hell's Kitchen" store, "Premium Beans" is at the top with an average revenue of \$57, and in the "Lower Manhattan" store, "Premium Beans" is again at the top with \$34.

```

167 SELECT
168     product_type,
169     round(SUM(transaction_qty)) AS total_qty_sold,
170     sum(transaction_qty * unit_price) AS total_revenue
171 FROM transactions
172 GROUP BY 1
173 ORDER BY total_qty_sold asc, total_revenue asc
174

```

	product_type text	total_qty_sold double precision	total_revenue double precision
1	Green beans	134	1340
2	Green tea	159	1470.75
3	House blend Beans	183	3294
4	Organic Chocolate	221	1679.600000000003
5	Clothing	221	6163
6	Drinking Chocolate	266	2728.040000000001
7	Black tea	303	2711.8500000000076
8	Herbal tea	305	2729.7500000000073
9	Espresso Beans	319	5560.249999999996
10	Gourmet Beans	366	6798

The **"Green beans"** product has the lowest sales performance with a sales volume of 134 units and a sales revenue of \$1,340.

📍 Store & Location Insights

- Sales performance by store location

```

167 SELECT
168     product_type,
169     round(SUM(transaction_qty)) AS total_qty_sold,
170     sum(transaction_qty * unit_price) AS total_revenue
171 FROM transactions
172 GROUP BY 1
173 ORDER BY total_qty_sold asc, total_revenue asc
174

```

	store_location text	total_sales double precision
1	Hell's Kitchen	236511
2	Astoria	232244
3	Lower Manhattan	230057

The stores each generated over \$200,000 in sales, with Hell's Kitchen leading the pack with \$236,511.

- **Most popular product in each location?**

```

188
189 ▼ SELECT
190     store_location,
191     product_detail,
192     SUM(transaction_qty) AS total_units_sold
193 FROM transactions
194 GROUP BY 1,2
195 ORDER BY store_location, total_units_sold DESC;
196

```

	store_location text	product_detail text	total_units_sold bigint
1	Astoria	Dark chocolate Lg	1755
2	Astoria	Earl Grey Rg	1725
3	Astoria	Peppermint Rg	1673
4	Astoria	Spicy Eye Opener Chai Lg	1634

In the "Astoria" locations, "Dark chocolate Lg" is the most ordered product with 1755 units. In the "Hell's Kitchen" location "Ouro Brasileiro shot" with 1854 units. In the "Lower Manhattan" location, "Peppermint Lg" with 1582 units.

- **Customer preferences by location**

```

201 ▼ SELECT
202     store_location,
203     product_category,
204     SUM(transaction_qty) AS total_quantity
205 FROM transactions
206 GROUP BY 1,2
207 ORDER BY total_quantity DESC;
208

```

	store_location text	product_category text	total_quantity bigint
1	Hell's Kitchen	Coffee	30220
2	Astoria	Coffee	29655
3	Lower Manhattan	Coffee	29375
4	Astoria	Tea	24048
5	Hell's Kitchen	Tea	22980

210	SELECT
211	store_location,
212	product_category,
213	ROUND(SUM(transaction_qty * unit_price)::numeric, 2) AS total_revenue
214	FROM transactions
215	GROUP BY 1,2
216	ORDER BY total_revenue DESC;
217	

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	store_location text	product_category text	total_revenue numeric
1	Hell's Kitchen	Coffee	91222.65
2	Astoria	Coffee	89744.30
3	Lower Manhattan	Coffee	88985.50
4	Astoria	Tea	67839.90
5	Hell's Kitchen	Tea	64701.30

According to the **Total Unit** and **Total Revenue** metrics, according to customer preferences in 3 stores, the catalog **Coffee and Tea** categories are at the top in all stores.