



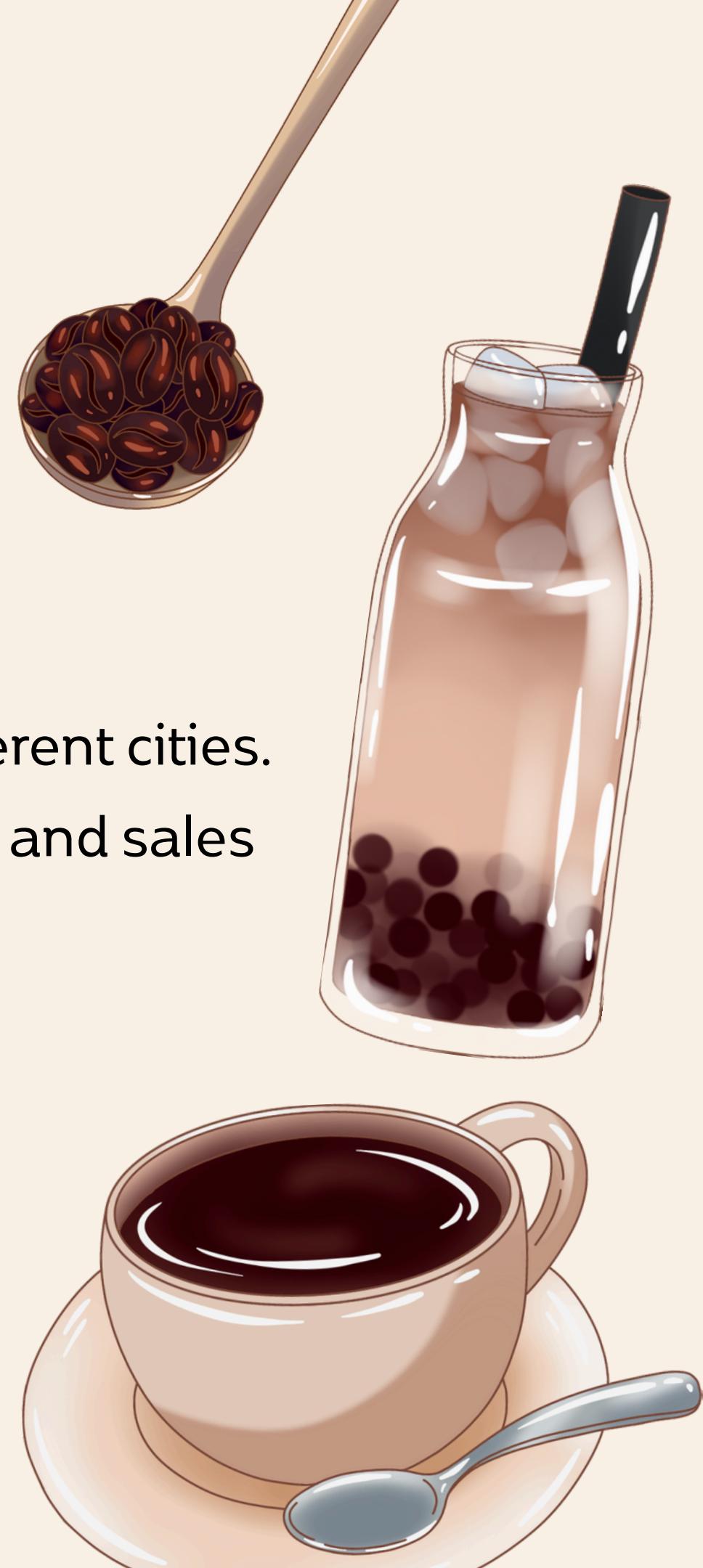
# LET'S LEARN ABOUT COFFEE

Presented by  
**Sunday Coffee Shop**

[www.sundaycoffee.com](http://www.sundaycoffee.com)

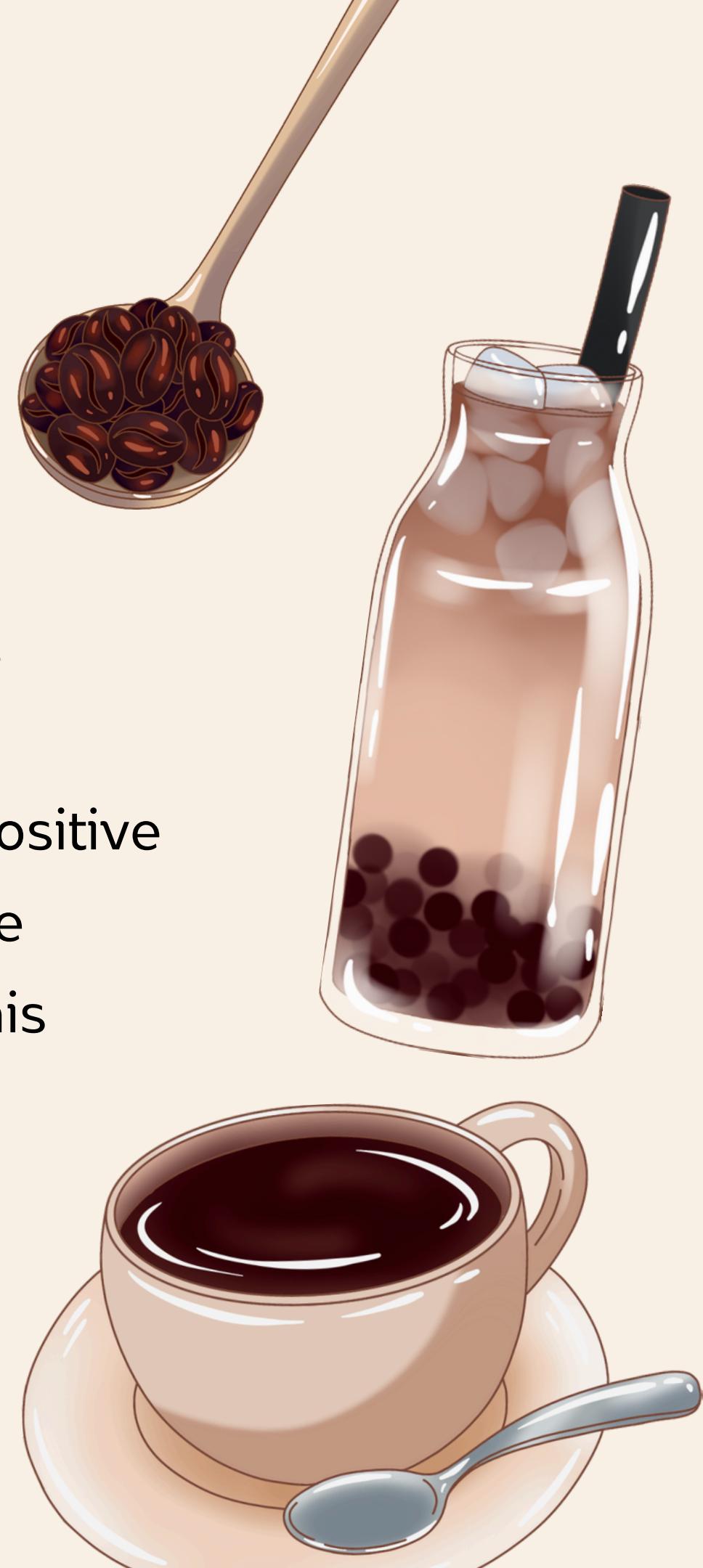
# Introduction

This project uses SQL to analyze coffee sales and customer data across different cities. The goal is to uncover insights on product performance, customer behavior, and sales growth to support data-driven business decisions.



# Objectives

The business aims to expand by opening three coffee shops in India's top three major cities. Since its launch in January 2023, the company has successfully sold its products online and received an overwhelmingly positive response in several cities. As a data analyst, your task is to analyze the sales data and provide insights to recommend the top three cities for this expansion.



How many people in each city are estimated to consume coffee, given that 25% of the population does?

```
SELECT
    city_name,
    ROUND((population * 0.25) / 1000000, 2) AS coffee_consumers_millions,
    city_rank
FROM
    city
ORDER BY 2 DESC;
```

	city_name	coffee_consumers_millions	city_rank
▶	Delhi	7.75	3
	Mumbai	5.10	2
	Kolkata	3.73	7
	Bangalore	3.08	1
	Chennai	2.78	6
	Hyderabad	2.50	4
	Ahmedabad	2.08	5
	Pune	1.88	9



# How many units of each coffee product have been sold?



**SELECT**

p.product\_name, COUNT(s.sale\_id) **AS** total\_orders

**FROM**

products **AS** p

**JOIN**

sales **AS** s **ON** s.product\_id = p.product\_id

**GROUP BY** p.product\_name

**ORDER BY** 2 **DESC;**

	product_name	total_orders
▶	Cold Brew Coffee Pack (6 Bottles)	1326
	Ground Espresso Coffee (250g)	1271
	Instant Coffee Powder (100g)	1226
	Coffee Beans (500g)	1218
	Tote Bag with Coffee Design	776
	Vanilla Coffee Syrup (250ml)	762
	Cold Brew Concentrate (500ml)	312
	Organic Green Coffee Beans (500g)	307



# What is the average sales amount per customer in each city?

```
SELECT
    ci.city_name,
    SUM(s.total) AS total_revenue,
    COUNT(DISTINCT s.customer_id) AS total_cx,
    ROUND(SUM(s.total) / COUNT(DISTINCT s.customer_id)),
    2) AS avg_sale_per_cx
FROM
    sales AS s
        JOIN
    customers AS c ON s.customer_id = c.customer_id
        JOIN
    city AS ci ON ci.city_id = c.city_id
GROUP BY ci.city_name
ORDER BY 2 DESC;
```

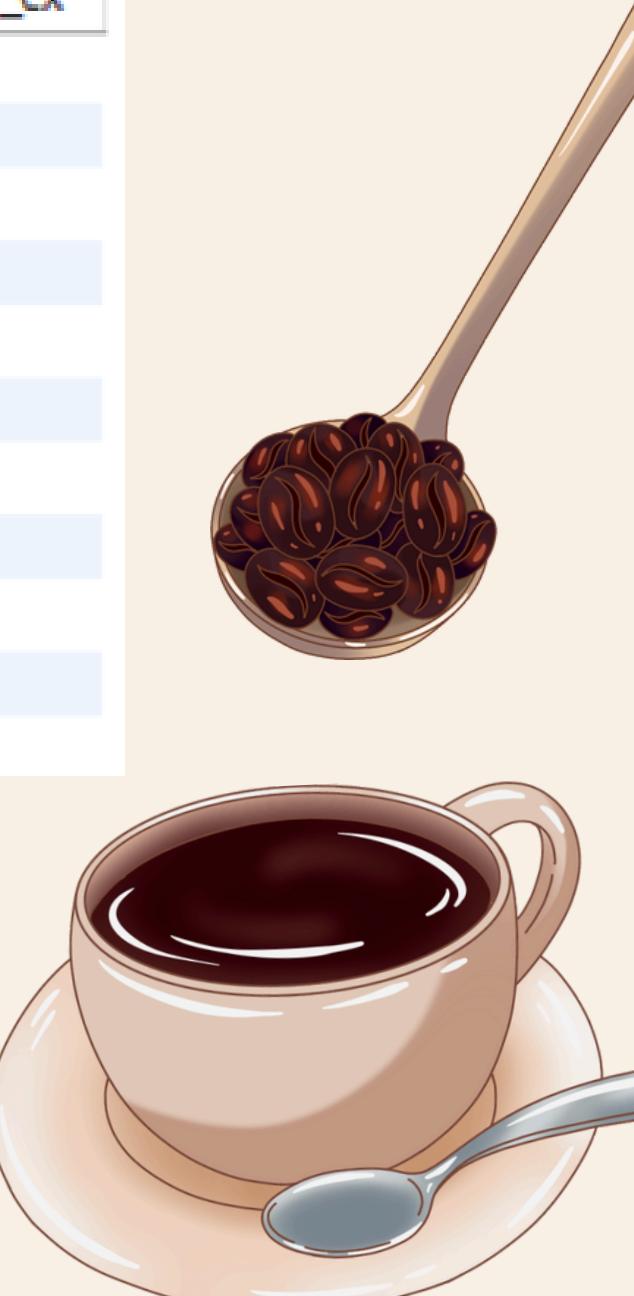
	city_name	total_revenue	total_cx	avg_sale_per_cx
▶	Pune	1258290	52	24197.88
	Chennai	944120	42	22479.05
	Bangalore	860110	39	22054.1
	Jaipur	803450	69	11644.2
	Delhi	750420	68	11035.59
	Mumbai	235000	27	8703.7
	Kanpur	213550	35	6101.43
	Surat	176540	27	6538.52



Provide a list of cities along with their populations and estimated coffee consumers.

```
with city_table as
  (select city_name,round((population * 0.25) / 1000000, 2)
   as coffee_customers from city), customers_table as
  ( select ci.city_name,
    count(distinct c.customer_id) as unique_cx
    from sales as s
    join customers as c
    on c.customer_id = s.customer_id
    join city as ci
    on ci.city_id = c.city_id
    group by city_name)
  select ct.city_name,
    ct.coffee_customers as coffee_customers_in_millions,
    citi.unique_cx
  from city_table as ct
  join customers_table as citi
  on citi.city_name = ct.city_name;
```

	city_name	coffee_customers_in_millions	unique_cx
▶	Ahmedabad	2.08	23
	Bangalore	3.08	39
	Chennai	2.78	42
	Delhi	7.75	68
	Hyderabad	2.50	21
	Indore	0.83	21
	Jaipur	1.00	69
	Kanpur	0.78	35
	Kolkata	3.73	28
	Lucknow	0.95	21
	Mumbai	5.10	27



# What are the top 3 selling products in each city based on sales volume?

```
select * from
(SELECT
    ci.city_name,
    p.product_name,
    COUNT(s.sale_id) AS total_orders,
    dense_rank() over(partition by ci.city_name
    order by count(s.sale_id) desc) as ranking
FROM
    sales AS s
        JOIN
    products AS p ON s.product_id = p.product_id
        JOIN
    customers AS c ON c.customer_id = s.customer_id
        JOIN
    city AS ci ON ci.city_id = c.city_id
GROUP BY ci.city_name , p.product_name) as t1
where ranking <= 3;
```

city_name	product_name	total_orders	ranking
Ahmedabad	Cold Brew Coffee Pack (6 Bottles)	40	1
Ahmedabad	Coffee Beans (500g)	35	2
Ahmedabad	Instant Coffee Powder (100g)	26	3
Bangalore	Cold Brew Coffee Pack (6 Bottles)	197	1
Bangalore	Ground Espresso Coffee (250g)	167	2
Bangalore	Instant Coffee Powder (100g)	150	3
Chennai	Cold Brew Coffee Pack (6 Bottles)	192	1
Chennai	Coffee Beans (500g)	181	2
Chennai	Instant Coffee Powder (100g)	172	3



# How many unique customers are there in each city who have purchased coffee products?

```
select ci.city_name,  
       count(distinct c.customer_id) as unique_cx  
  from city as ci  
  join customers as c  
    on c.city_id = ci.city_id  
  join sales as s  
    on s.customer_id = c.customer_id  
   where s.product_id in (1,2,3,4,5,6,7,8,9,10,11,12,13,14)  
group by ci.city_name;
```

city_name	unique_cx
Ahmedabad	23
Bangalore	39
Chennai	42
Delhi	68
Hyderabad	21
Indore	21



# Find each city and their average sale per customer and avg rent per customer.

```
with city_table as
(SELECT
    ci.city_name,
    SUM(s.total) AS total_revenue,
    COUNT(DISTINCT s.customer_id) AS total_cx,
    ROUND(SUM(s.total) / COUNT(DISTINCT s.customer_id),
          2) AS avg_sale_per_cx
FROM
    sales AS s
        JOIN
    customers AS c ON s.customer_id = c.customer_id
        JOIN
    city AS ci ON ci.city_id = c.city_id
GROUP BY ci.city_name
ORDER BY 2 DESC),
city_rent as
(select city_name, estimated_rent from city)
select
cr.city_name,
cr.estimated_rent,
ct.total_cx,
ct.avg_sale_per_cx,
round(cr.estimated_rent/ ct.total_cx, 2) as avg_rent_per_cx
from city_rent as cr
join city_table as ct
on cr.city_name = ct.city_name
order by 4 desc;
```

city_name	estimated_rent	total_cx	avg_sale_per_cx	avg_rent_per_cx
Pune	15300	52	24197.88	294.23
Chennai	17100	42	22479.05	407.14
Bangalore	29700	39	22054.1	761.54
Jaipur	10800	69	11644.2	156.52
Delhi	22500	68	11035.59	330.88
Mumbai	31500	27	8703.7	1166.67
Indore	6300	21	6599.52	300.00
Surat	13500	27	6538.52	500.00
Hyderabad	22500	21	6262.86	1071.43
Kolkata	16200	28	6123.57	578.57
Kanpur	8100	35	6101.43	231.43
Ahmedabad	14400	23	5986.52	626.09

# Calculate the percentage growth (or decline) in sales over different time periods (monthly).

```
with monthly_sales as
(select ci.city_name,
extract(month from sale_date) as month,
extract(year from sale_date) as year,
sum(s.total) as total_sale
from sales as s
join customers as c
on c.customer_id = s.customer_id
join city as ci
on ci.city_id = c.city_id
group by 1, 2, 3
order by 1, 3, 2),
growth_ratio as
(select city_name,month,year,
total_sale as cr_month_sale,
lag(total_sale, 1) over(partition by city_name order by year, month) as last_month_sale
from monthly_sales)
select city_name, month, year,
cr_month_sale,
last_month_sale,
round((cr_month_sale-last_month_sale) / last_month_sale * 100, 2) as growth_rate
from growth_ratio
where last_month_sale is not null;
```

city_name	month	year	cr_month_sale	last_month_sale	growth_rate
Ahmedabad	2	2023	4100	3750	9.33
Ahmedabad	3	2023	3050	4100	-25.61
Ahmedabad	4	2023	4040	3050	32.46
Ahmedabad	5	2023	2550	4040	-36.88
Ahmedabad	6	2023	2900	2550	13.73
Ahmedabad	7	2023	2800	2900	-3.45
Ahmedabad	8	2023	4300	2800	53.57
Ahmedabad	9	2023	8250	4300	91.86
Ahmedabad	10	2023	10950	8250	32.73
Ahmedabad	11	2023	21250	10950	94.06



Identify top 3 city based on highest sales, return city name, total sale, total rent, total customers, estimated coffee consumer.

```
with city_table as
(SELECT
    ci.city_name,
    SUM(s.total) AS total_revenue,
    COUNT(DISTINCT s.customer_id) AS total_cx,
    ROUND(SUM(s.total) / COUNT(DISTINCT s.customer_id),
        2) AS avg_sale_per_cx
FROM
    sales AS s
        JOIN
    customers AS c ON s.customer_id = c.customer_id
        JOIN
    city AS ci ON ci.city_id = c.city_id
GROUP BY ci.city_name
ORDER BY 2 DESC),
city_rent as
(select city_name, estimated_rent,
round((population *0.25)/1000000, 3) as
estimated_coffee_consumer_in_millions from city)
select
cr.city_name,
total_revenue,
cr.estimated_rent as total_rent,
ct.total_cx,
estimated_coffee_consumer_in_millions,
ct.avg_sale_per_cx,
round(cr.estimated_rent/ ct.total_cx, 2) as avg_rent_per_cx
from city_rent as cr
join city_table as ct
on cr.city_name = ct.city_name
order by 2 desc;
```

city_name	total_revenue	total_rent	total_cx	estimated_coffee_consumer_in_millions	avg_sale_per_cx	avg_rent_per_cx
Pune	1258290	15300	52	1.875	24197.88	294.23
Chennai	944120	17100	42	2.775	22479.05	407.14
Bangalore	860110	29700	39	3.075	22054.1	761.54
Jaipur	803450	10800	69	1.000	11644.2	156.52
Delhi	750420	22500	68	7.750	11035.59	330.88
Mumbai	235000	31500	27	5.100	8703.7	1166.67
Kanpur	213550	8100	35	0.775	6101.43	231.43
Surat	176540	13500	27	1.800	6538.52	500.00
Kolkata	171460	16200	28	3.725	6123.57	578.57
Nagpur	140050	7200	24	0.725	5835.42	300.00
Indore	138590	6300	21	0.825	6599.52	300.00
Ahmedabad	137690	14400	23	2.075	5986.52	626.09

# Conclusion

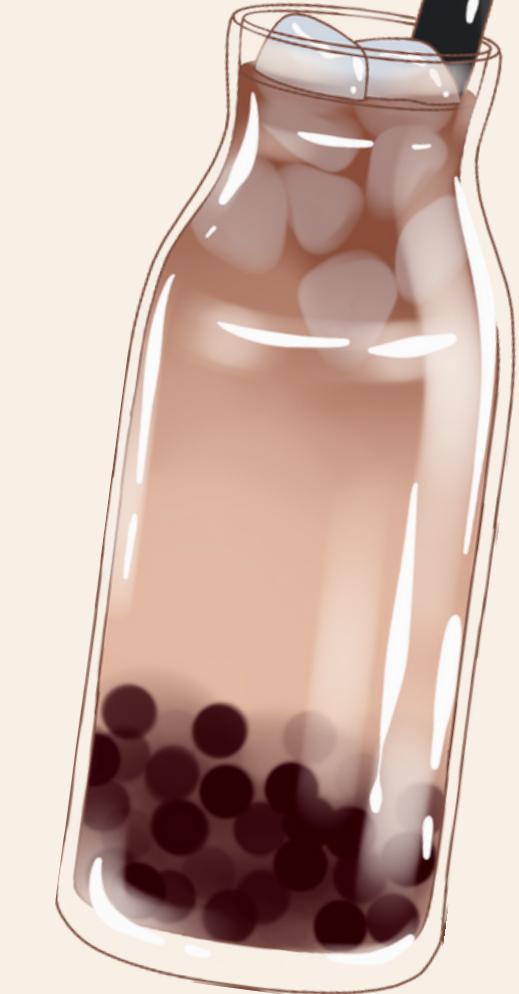
## City 1: Pune

- Average rent per customer is very low.
- Highest total revenue.
- Average sales per customer is also high.



## City 2: Delhi

- Highest estimated coffee consumers at 7.7 million.
- Highest total number of customers, which is 68.
- Average rent per customer is 330 (still under 500).



## City 3: Jaipur

- Highest number of customers, which is 69.
- Average rent per customer is very low at 156.
- Average sales per customer is better at 11.6k.



# THANK YOU

