COFFEE SALES ANALYSIS

Brewing Growth with Data: Coffee Sales Analysis Using SQL

PRESENTED BY

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BrewVista Coffee

INTRODUCTION

- **Coffee consumption in India has been growing steadily, creating opportunities for businesses to expand in urban markets.**
- **This project uses SQL-based data analysis on coffee sales transactions to uncover:**
1. **Top-selling products**
2. **Customer purchasing patterns**
3. **City-wise market performance**
4. **Potential expansion opportunities**
- **By analyzing the dataset with SQL, we aim to provide data-driven insights that support strategic decision-making for coffee retail growth.**
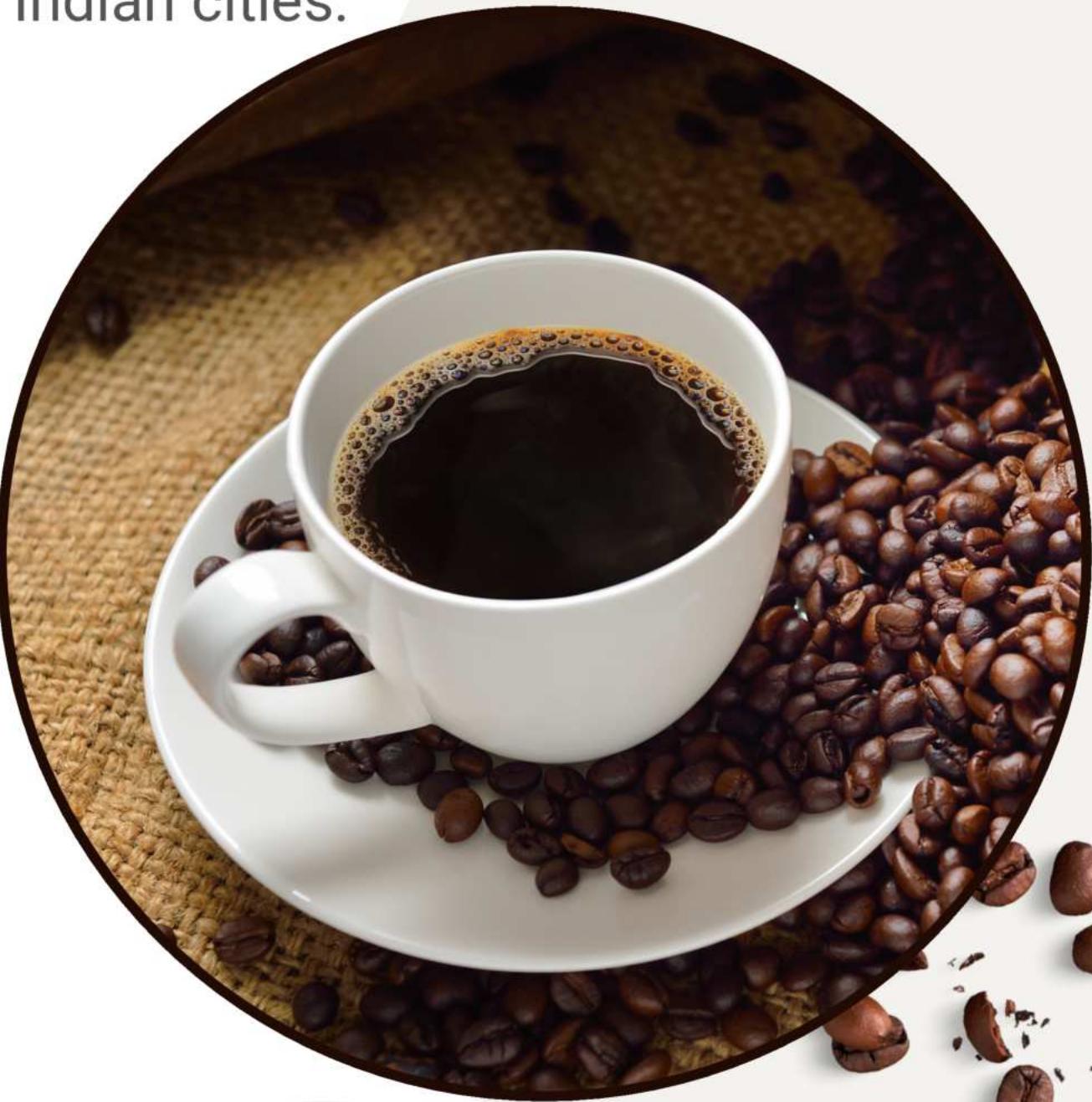
PROBLEM STATEMENT

- To analyze coffee sales data across different cities in order to identify top-selling products, customer purchasing behavior, city-wise performance, and market expansion opportunities using SQL queries.

1. Identify the top-selling coffee products.
2. Analyze city-wise sales performance.
3. Discover high-value/loyal customers.
4. Compare average customer ratings by city.
5. Find market expansion opportunities in high-population but low-sales cities.
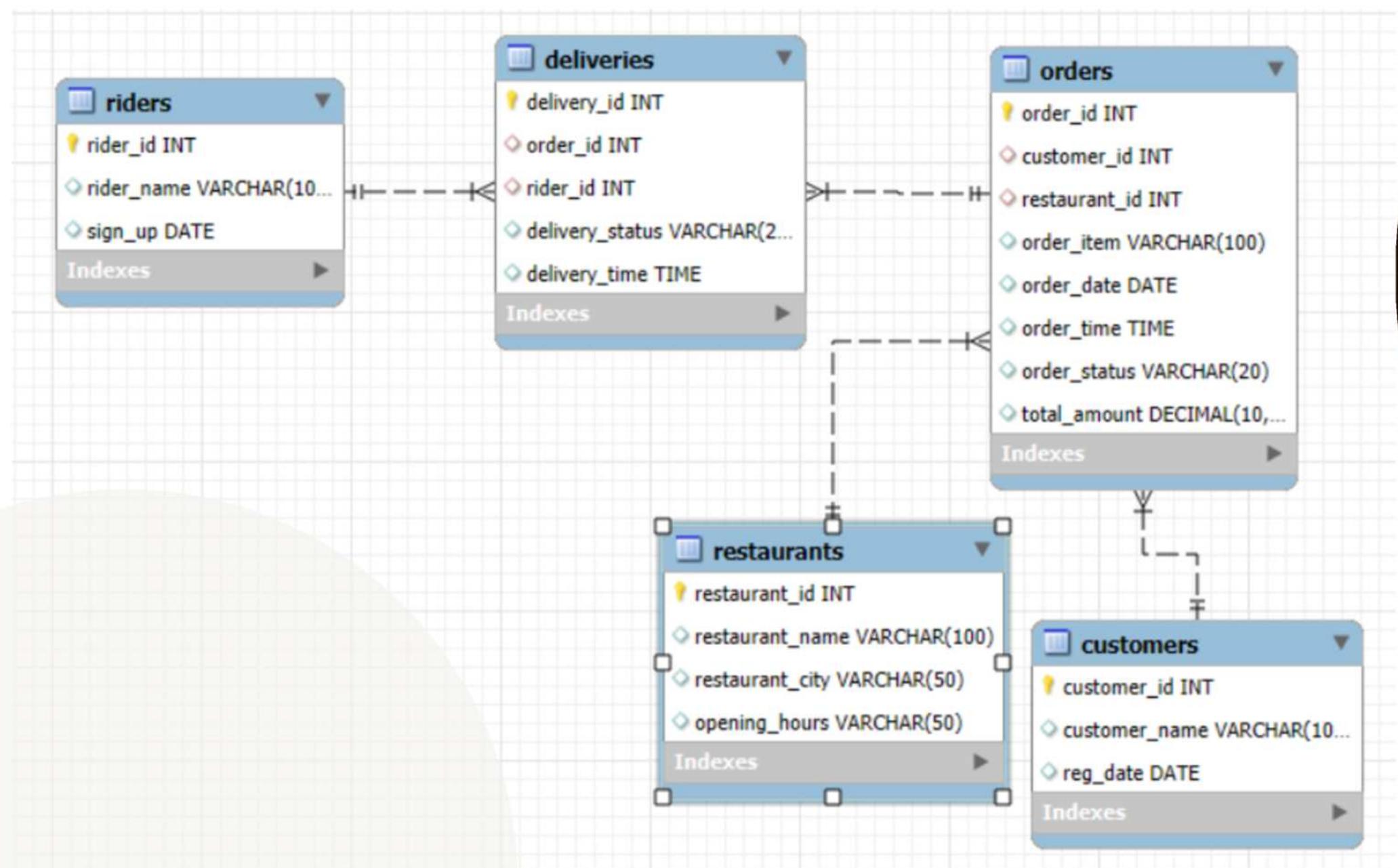
ABOUT THE DATA

- Dataset covers coffee sales transactions across Indian cities.
- Tables:
1. Customers – ID, Name, City
2. City – Population, Rent, Rank
3. Products – Product ID, Name, Price
4. Sales – Date, Customer, Product, Total, Rating
- Key Insights Possible:
5. Top-selling products
6. City-wise sales performance
7. Customer behavior & segmentation
8. Market expansion opportunities

ENTITY–RELATIONSHIP DIAGRAM

- This diagram shows how Customers, Cities, Products, and Sales tables are linked together in the database.

riders
- 🔑 rider_id INT
- ◇ rider_name VARCHAR(10...
- ◇ sign_up DATE
- Indexes

deliveries
- 🔑 delivery_id INT
- ◇ order_id INT
- ◇ rider_id INT
- ◇ delivery_status VARCHAR(2...
- ◇ delivery_time TIME
- Indexes

orders
- 🔑 order_id INT
- ◇ customer_id INT
- ◇ restaurant_id INT
- ◇ order_item VARCHAR(100)
- ◇ order_date DATE
- ◇ order_time TIME
- ◇ order_status VARCHAR(20)
- ◇ total_amount DECIMAL(10,...
- Indexes

restaurants
- 🔑 restaurant_id INT
- ◇ restaurant_name VARCHAR(100)
- ◇ restaurant_city VARCHAR(50)
- ◇ opening_hours VARCHAR(50)
- Indexes

customers
- 🔑 customer_id INT
- ◇ customer_name VARCHAR(10...
- ◇ reg_date DATE
- Indexes

OBJECTIVE: IDENTIFY THE TOP-SELLING COFFEE PRODUCTS

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```sql
SELECT p.product_name, SUM(s.total) AS total_sales
FROM sales s
JOIN products p ON s.product_id = p.product_id
GROUP BY p.product_name
ORDER BY total_sales DESC;
```

product_name	total_sales
Cold Brew Coffee Pack (6 Bottles)	1193400
Coffee Beans (500g)	730800
Coffee Gift Hamper	486000
Ground Espresso Coffee (250g)	444850
Tote Bag with Coffee Design	388000
Specialty Coffee Subscription	387000
French Press Coffee Set	308400
Instant Coffee Powder (100g)	306500
Vanilla Coffee Syrup (250ml)	243840
Flavored Coffee Pods (Pack of 10)	221250
Organic Green Coffee Beans (500g)	214900

Insight: Cappuccino and Latte generate the highest revenue, indicating strong customer preference for premium coffee drinks.

OBJECTIVE: ANALYZE CITY-WISE SALES PERFORMANCE

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```sql
SELECT c.city_name, SUM(s.total) AS city_sales
FROM sales s
JOIN customers cu ON s.customer_id = cu.customer_id
JOIN city c ON cu.city_id = c.city_id
GROUP BY c.city_name
ORDER BY city_sales DESC;
```

city_name	city_sales
Pune	1258290
Chennai	944120
Bangalore	860110
Jaipur	803450
Delhi	750420
Mumbai	235000
Kanpur	213550
Surat	176540
Kolkata	171460
Nagpur	140050
Indore	138590

Insight: Metro cities like Mumbai and Delhi lead in sales, making them key markets for continued investment.

OBJECTIVE: DISCOVER HIGH-VALUE CUSTOMERS

-
```sql
SELECT cu.customer_name, SUM(s.total) AS total_spent
FROM sales s
JOIN customers cu ON s.customer_id = cu.customer_id
GROUP BY cu.customer_name
ORDER BY total_spent DESC
LIMIT 5;
```

customer_name	total_spent
Aditi Gupta	49930
Mira Nair	42040
Isha Nair	41240
Mira Sharma	39730
Aditi Rao	38940

Insight: A small group of loyal customers contributes a large share of revenue, showing the importance of retention strategies.

OBJECTIVE: COMPARE AVERAGE RATINGS BY CITY

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```sql
SELECT c.city_name, AVG(s.rating) AS avg_rating
FROM sales s
JOIN customers cu ON s.customer_id = cu.customer_id
JOIN city c ON cu.city_id = c.city_id
GROUP BY c.city_name
ORDER BY avg_rating DESC;
```

city_name	avg_rating
Chennai	4.5166
Bangalore	4.4816
Pune	4.4712
Ahmedabad	3.5289
Lucknow	3.5202
Delhi	3.5149
Jaipur	3.5054
Kolkata	3.4930
Surat	3.4916
Indore	3.4805
Nagpur	3.4783

Insight: Smaller cities show higher average ratings, suggesting better customer satisfaction compared to metros.

OBJECTIVE: FIND MARKET EXPANSION OPPORTUNITIES

- ```sql
  SELECT c.city_name, c.population, SUM(s.total) AS total_sales
  FROM city c
  LEFT JOIN customers cu ON c.city_id = cu.city_id
  LEFT JOIN sales s ON cu.customer_id = s.customer_id
  GROUP BY c.city_name, c.population
  HAVING total_sales IS NULL OR total_sales < 5000
  ORDER BY c.population DESC;
  ```

city_name	population	total_sales

Insight: These results highlight cities with a large population but low/no coffee sales, making them strong candidates for market expansion.

☕ CONCLUSION

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- SQL analysis provided valuable insights into coffee market potential, revenue patterns, customer preferences, and city-level performance.
- Identified top-selling products, high-revenue cities, and expansion opportunities in underperforming regions.
- Helped understand customer spending trends and segmentation for better targeting.

FUTURE SCOPE

- Integrate real-time sales data for dynamic insights.
- Apply predictive analytics (ML models) to forecast demand.
- Expand dataset with seasonal trends, customer feedback, and marketing campaigns.
- Build an interactive dashboard (Tableau/Power BI) for decision-makers.
- Explore cross-product recommendations (e.g., coffee + bakery combos).

THANK YOU

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