



# **BikeStores SQL Analysis (2016-2018)**

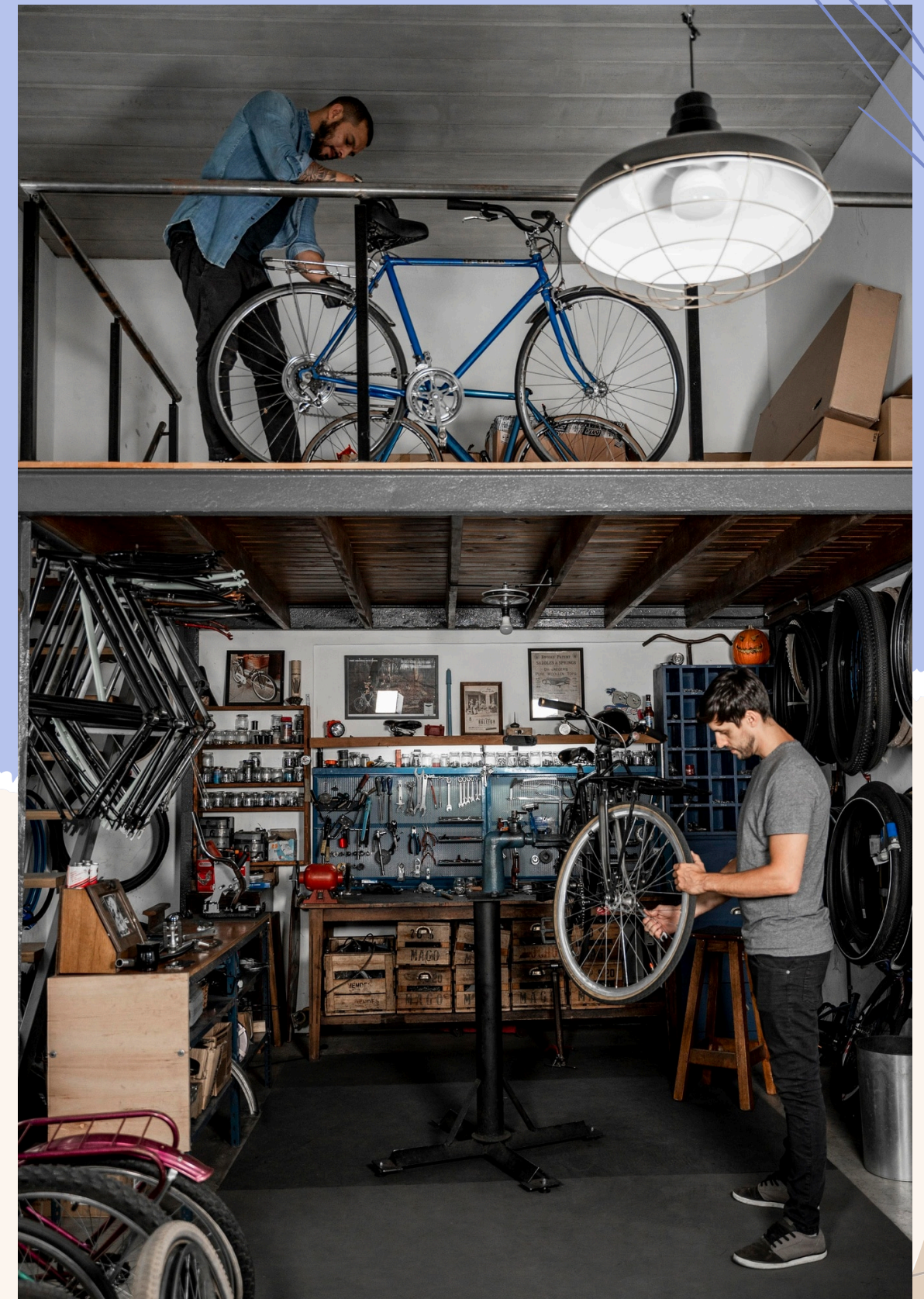
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# Introduction to the Bike Store Landscape

The Bike Store database is structured to manage and analyze various aspects of the business, including sales, production, and customer management. The database is organized into several key entities. It splits into two sections : Sales and Production

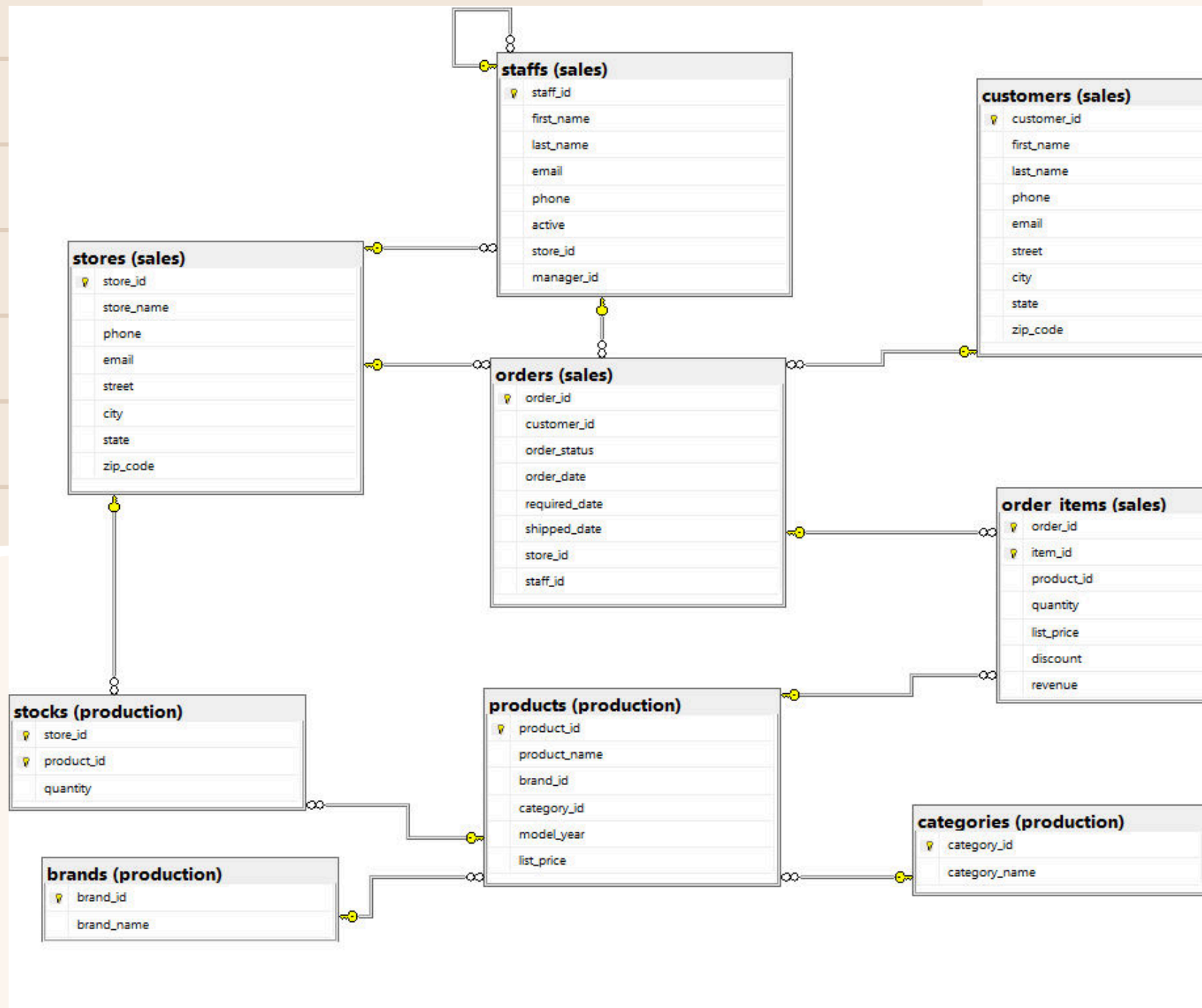
The sales section includes several tables: Orders, Order\_Item, Staff, Stores, and Customers

The Production section includes: Products, Categories, Brands, and Stocks



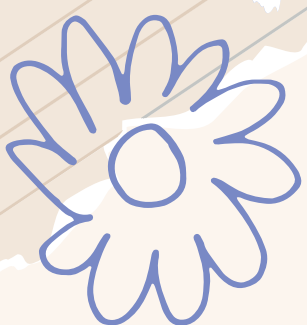


# SQL Diagram



- **Stores & Staffs**: Management of store locations, associated staff, and their roles.
- **Customers & Orders**: Tracking customer interactions, orders, and related details.
- **Products & Stocks**: Monitoring inventory levels, product categories, brands, and pricing.
- **Order Items**: Detailed breakdown of each order, including quantities, pricing, and discounts.

This relational schema enables the Bike Store to efficiently manage operations, analyze customer demographics, and identify growth opportunities across various market segments.



# Revenue by product category

```
--- Revenue by Product Category ---  
SELECT  
  c.category_name ,  
  ROUND(SUM(s.revenue),0) AS TOTAL_REVENUE  
FROM sales.order_items S  
JOIN production.products P  
  ON P.product_id = S.product_id  
JOIN production.categories C  
  ON P.category_id = C.category_id  
GROUP BY C.category_name  
ORDER BY TOTAL_REVENUE DESC
```

Results Messages		
	category_name	TOTAL_REVENUE
1	Mountain Bikes	3027619.0000000000
2	Road Bikes	1850681.0000000000
3	Cruisers Bicycles	1108010.0000000000
4	Electric Bikes	1019201.0000000000
5	Cyclocross Bicycles	798986.0000000000
6	Comfort Bicycles	438062.0000000000
7	Children Bicycles	327531.0000000000





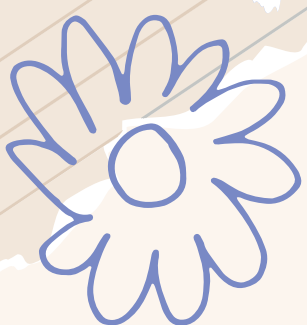


# Top 10 Products by # of Orders

```
--- Top 10 Products by Number of orders ---  
SELECT TOP 10 p.PRODUCT_NAME , SUM(S.QUANTITY) AS NUMBER_OF_ORDERS  
FROM production.products P  
JOIN SALES.order_items S ON P.product_id = S.product_id  
GROUP BY P.product_name  
ORDER BY NUMBER_OF_ORDERS DESC
```

	PRODUCT_NAME	NUMBER_OF_ORDERS
1	Electra Cruiser 1 (24-Inch) - 2016	296
2	Electra Townie Original 7D EQ - 2016	290
3	Electra Townie Original 21D - 2016	289
4	Electra Girl's Hawaii 1 (16-inch) - 2015/2016	269
5	Surly Ice Cream Truck Frameset - 2016	167
6	Electra Girl's Hawaii 1 (20-inch) - 2015/2016	154
7	Trek Slash 8 27.5 - 2016	154
8	Surly Straggler 650b - 2016	151
9	Electra Townie Original 7D - 2015/2016	148
10	Surly Straggler - 2016	147

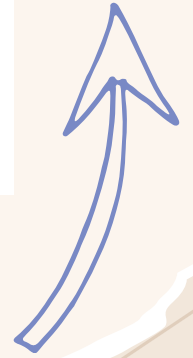


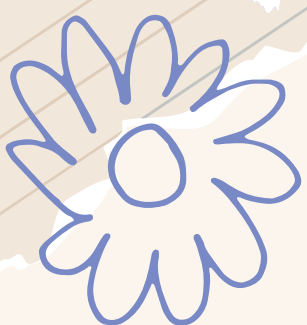


# Total Revenue per Store

```
--- Average Revenue per State
SELECT SS.state , ROUND(AVG(O.revenue),0) AS AVG_REVENUE
FROM sales.stores SS
JOIN sales.orders S ON SS.store_id=S.store_id
JOIN sales.order_items O ON S.order_id=O.order_id
GROUP BY SS.state
ORDER BY AVG_REVENUE DESC
```

Results			Messages		
	state	AVG_REVENUE			
1	TX	1846.0000000000			
2	NY	1822.0000000000			
3	CA	1778.0000000000			





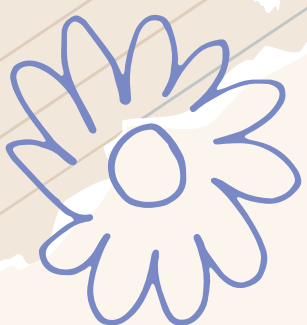
# Top 10 Sales REP. by Revenue

```
--- Top 10 sales rep. by Revenue
SELECT (S.first_name + ' ' + S.last_name) AS SALES_REP ,
ROUND(SUM(OO.revenue),0) AS TOTAL_REVENUE
FROM SALES.staffs S
JOIN SALES.orders O ON O.staff_id=S.staff_id
JOIN SALES.order_items OO ON OO.order_id=O.order_id
GROUP BY S.first_name,S.last_name
ORDER BY TOTAL_REVENUE DESC
```

Results Messages		
	SALES_REP	TOTAL_REVENUE
1	Marcelene Boyer	2935741.0000000000
2	Venita Daniel	2884396.0000000000
3	Genna Serrano	951728.0000000000
4	Mireya Copeland	836575.0000000000
5	Kali Vargas	516167.0000000000
6	Layla Terrell	445483.0000000000







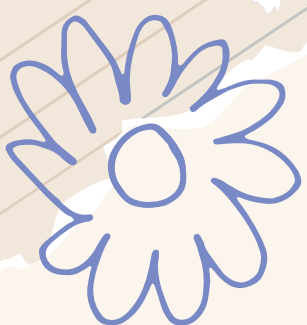
# Bottom 10 Sales REP. by Revenue

```
--- BOTTOM 10 sales rep. by Revenue
SELECT (S.first_name + ' ' + S.last_name) AS SALES_REP ,
ROUND(SUM(OO.revenue),0) AS TOTAL_REVENUE
FROM SALES.staffs S
JOIN SALES.orders O ON O.staff_id=S.staff_id
JOIN SALES.order_items OO ON OO.order_id=O.order_id
GROUP BY S.first_name,S.last_name
ORDER BY TOTAL_REVENUE ASC
```

Results Messages		
	SALES_REP	TOTAL_REVENUE
1	Layla Terrell	445483.0000000000
2	Kali Vargas	516167.0000000000
3	Mireya Copeland	836575.0000000000
4	Genna Serrano	951728.0000000000
5	Venita Daniel	2884396.0000000000
6	Marcelene Boyer	2935741.0000000000



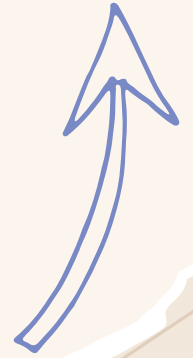




# Sales REP. With 0\$ Sales

```
--- SALES REP WHO DIDN'T SELL ANYTHING
SELECT S.first_name + ' ' + S.last_name AS SALES_REP
FROM SALES.staffs S
LEFT JOIN SALES.orders O ON O.staff_id = S.staff_id
LEFT JOIN SALES.order_items OO ON OO.order_id = O.order_id
GROUP BY S.first_name, S.last_name
HAVING SUM(OO.revenue) IS NULL
ORDER BY SALES_REP;
```

Results		Messages
	SALES_REP	
1	Bernardine Houston	
2	Fabiola Jackson	
3	Jannette David	
4	Virgie Wiggins	



# Key Metrics Dashboard

## BikeStores Dashboard | By Mahmoud Emad | DEPI

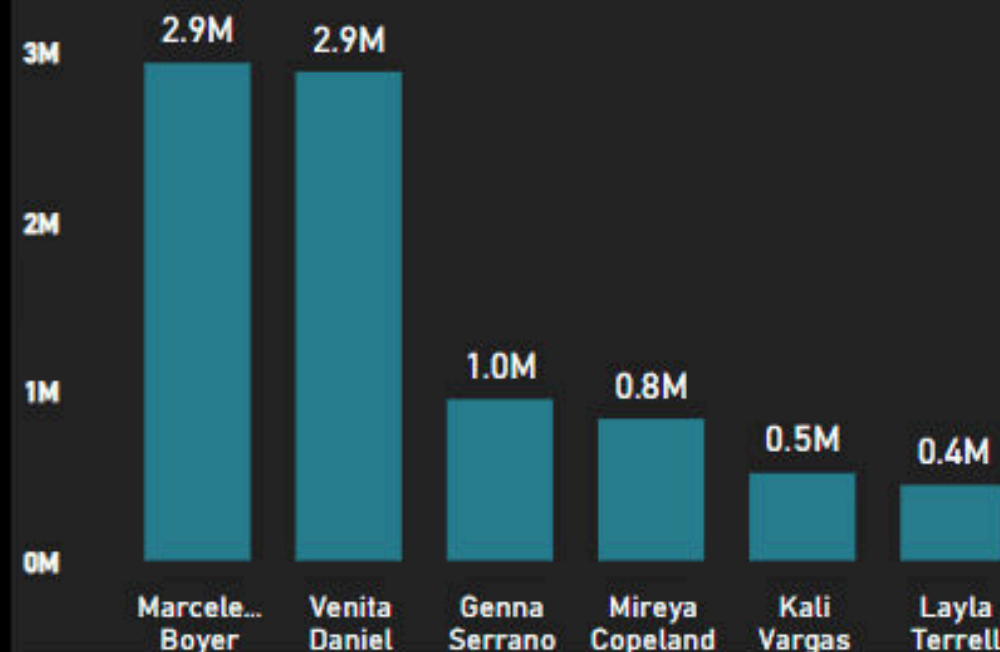
### Total Revenue

8.57M

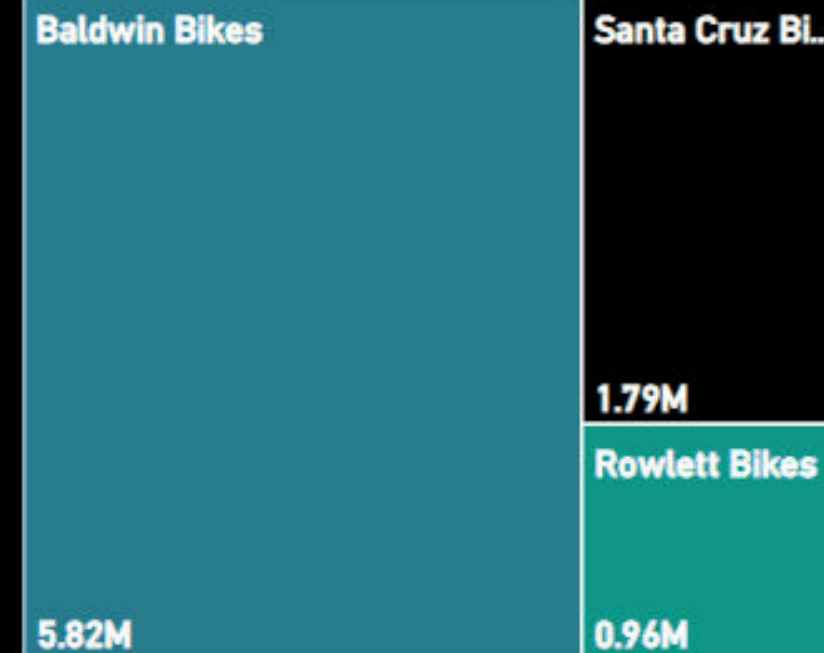
### #OfOrders

2065

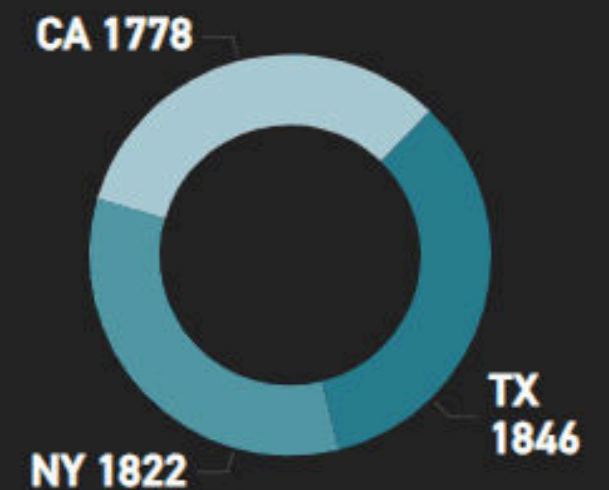
### TOTAL REVENUE by SALES REP



### TOTAL REVENUE by Store



### AVG REVENUE by State



### Rep Sales With 0\$

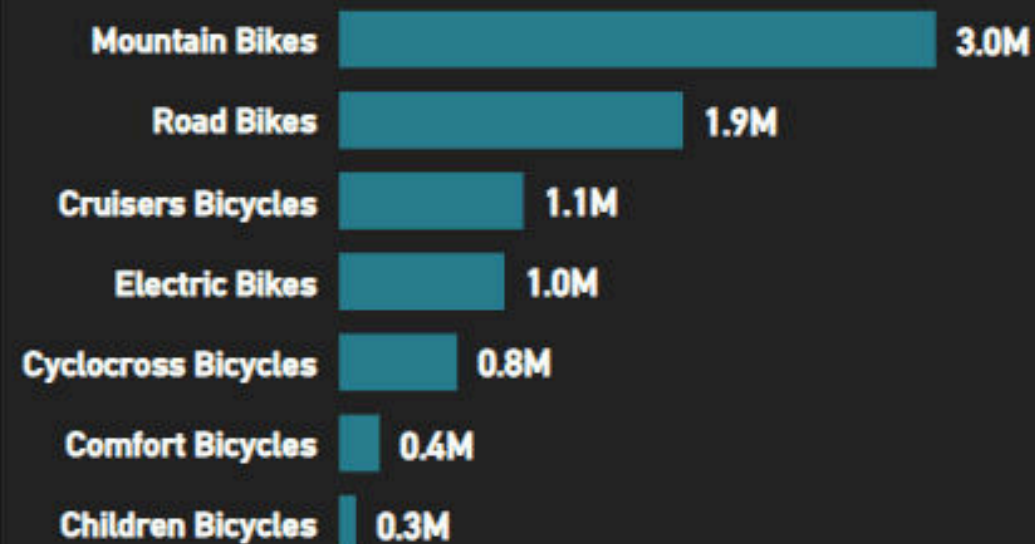
Bernardine Houston

Fabiola Jackson

Jannette David

Virgie Wiggins

### TOTAL REVENUE by Category



### PRODUCT NAME

### Sum of #OfOrders

Electra Cruiser 1 (24-Inch) - 2016	296
Electra Girl's Hawaii 1 (16-inch) - 2015/2016	269
Electra Girl's Hawaii 1 (20-inch) - 2015/2016	154
Electra Townie Original 21D - 2016	289
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Electra Townie Original 7D EQ - 2016	290
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Surly Straggler - 2016	147
Surly Straggler 650b - 2016	151
Trek Slash 8 27.5 - 2016	154
Total	2065



# Conclusion

In conclusion, the bike store landscape presents significant opportunities and challenges. By leveraging data-driven insights, understanding market trends, and implementing strategic decisions, we can navigate this dynamic terrain with confidence. Let's continue to push forward, capitalize on emerging opportunities, and foster a thriving bike culture that drives sustainable growth.



# Thanks!



**Do you have any questions?**

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