



# DATA ANALYSIS



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# PROJECT INTRODUCTION

This project involves the analysis of the Adidas sales dataset, which encompasses detailed information on the sales of Adidas products. Using SQL Queries, we analyse data to provide valuable key insights, identify patterns, and generate meaningful recommendations that can drive business growth and strategic decision-making.

# OBJECTIVE

The primary objective is to perform an in-depth analysis of the Adidas sales dataset, addressing key questions related to retailers, units sold, product category wise, and more.

The scope includes data cleaning, and creating supporting tables for detailed analysis. We will also explore trends in operating profits, sales method, and more to provide actionable insights.

# Creating Database and Importing Data

```
1 • create database adidas_sales;
2 • use adidas_sales;
3 • desc adidas_data;
4 • select * from adidas_data;
5 • alter table adidas_data
6   ADD PRIMARY KEY (Retailer_ID);
7 • desc adidas_data;
```

Result Grid | Filter Rows: | Export: | Wrap

|   | Field        | Type | Null | Key | Default | Extra |
|---|--------------|------|------|-----|---------|-------|
| ► | Retailer_ID  | int  | NO   | PRI | NULL    |       |
|   | Retailer     | text | YES  |     | NULL    |       |
|   | Invoice Date | text | YES  |     | NULL    |       |
|   | Year         | int  | YES  |     | NULL    |       |
|   | Month        | int  | YES  |     | NULL    |       |
|   | Region       | text | YES  |     | NULL    |       |
|   | State        | text | YES  |     | NULL    |       |

Result 9 x

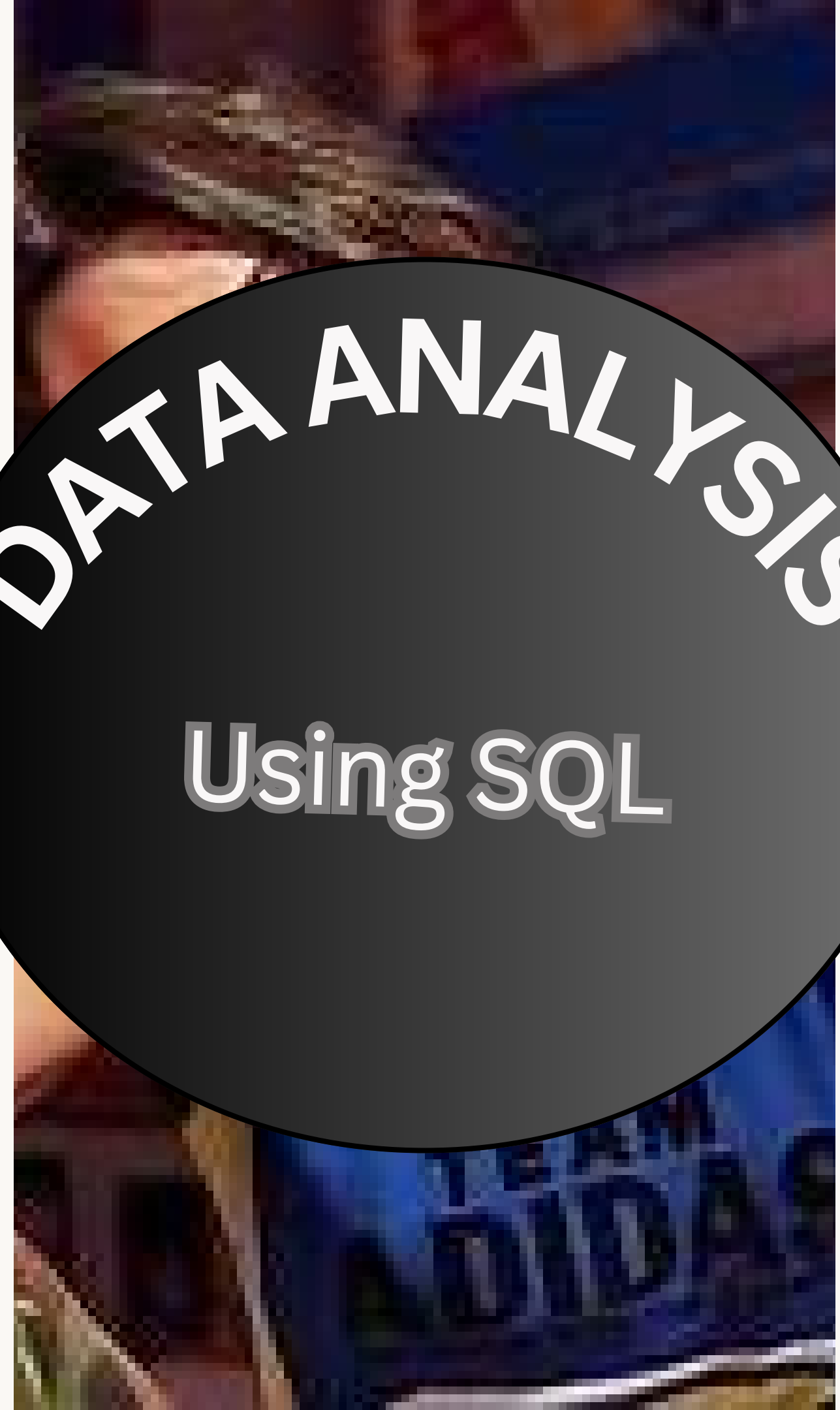






# DATA ANALYSIS

## Using SQL



# What are the products sold and how many are they?

```
8  -- What are the products sold and how many are they?
9  ● SELECT Product, SUM(Units_Sold) AS Total_Units_Sold
10  FROM adidas_data
11  GROUP BY Product;
12
```

Result Grid |   Filter Rows:  | Export:  | Wrap Cell Contents: ☐

|   | Product                 | Total_Units_Sold |
|---|-------------------------|------------------|
| ▶ | Men's Street Footwear   | 202871           |
|   | Women's Apparel         | 164244           |
|   | Men's Athletic Footwear | 167376           |
|   | Men's Apparel           | 131794           |
|   | Women's Street Footwear | 155629           |

Result 8 x

## KEY FINDINGS:

Men's Apparel, Women's Apparel, Women's Street Footwear, Men's Athletic Footwear, Women's Athletic Footwear and Men's Street Footwear are the products sold. They are 6 products in number.

## BEST SELLING PRODUCT

```
12
13  -- What is the best and least selling product?
14  -- Best selling product
15  • SELECT Product, SUM(Units_Sold) AS Total_Units_Sold
16  FROM adidas_data
17  GROUP BY Product
18  ORDER BY Total_Units_Sold DESC
19  LIMIT 1;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content

| Product               | Total_Units_Sold |
|-----------------------|------------------|
| Men's Street Footwear | 202871           |

## LEAST SELLING PRODUCT

```
21  -- Least selling product
22  • SELECT Product, SUM(Units_Sold) AS Total_Units_Sold
23  FROM adidas_data
24  GROUP BY Product
25  ORDER BY Total_Units_Sold
26  LIMIT 1;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content

| Product       | Total_Units_Sold |
|---------------|------------------|
| Men's Apparel | 131794           |

# What is the best selling product for all retailers?

```
29 -- what is the best selling product for all retailers?
30 • SELECT Retailer, Product, SUM(Units_Sold) AS Total_Units_Sold
31 FROM adidas_data
32 GROUP BY Retailer, Product
33 ORDER BY Retailer, Total_Units_Sold DESC;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

|   | Retailer    | Product                   | Total_Units_Sold |
|---|-------------|---------------------------|------------------|
| ▶ | Amazon      | Women's Street Footwear   | 2096             |
|   | Amazon      | Women's Apparel           | 1961             |
|   | Amazon      | Women's Athletic Footwear | 1850             |
|   | Amazon      | Men's Apparel             | 1636             |
|   | Amazon      | Men's Street Footwear     | 919              |
|   | Amazon      | Men's Athletic Footwear   | 260              |
|   | Foot Locker | Men's Street Footwear     | 70633            |

Result 10 x

Best selling product for amazon is  
Women Street Footwear that is  
2096 units.





# What is the best selling product for all retailers?

|  | Retailer    | Product                   | Total_Units_Sold |
|--|-------------|---------------------------|------------------|
|  | Foot Locker | Men's Street Footwear     | 70633            |
|  | Foot Locker | Men's Athletic Footwear   | 53674            |
|  | Foot Locker | Women's Apparel           | 49347            |
|  | Foot Locker | Women's Street Footwear   | 47587            |
|  | Foot Locker | Women's Athletic Footwear | 37916            |
|  | Foot Locker | Men's Apparel             | 36474            |
|  | Kohl's      | Men's Street Footwear     | 15834            |

Best selling product for Foot Locker is Men Street Footwear that is 70633 units.



# What is the best selling product for all retailers?

| Retailer      | Product                   | Total_Units_Sold |
|---------------|---------------------------|------------------|
| Kohl's        | Men's Street Footwear     | 15834            |
| Kohl's        | Women's Apparel           | 11216            |
| Kohl's        | Men's Athletic Footwear   | 11099            |
| Kohl's        | Women's Street Footwear   | 7943             |
| Kohl's        | Men's Apparel             | 7524             |
| Kohl's        | Women's Athletic Footwear | 7141             |
| Sports Direct | Men's Street Footwear     | 54106            |

ult 10 x

Best selling product for Kohl's is Men Street Footwear that is 15834 units.

What is the best selling product for all retailers?

| Result Grid  |               |                           |                  |
|--------------|---------------|---------------------------|------------------|
| Filter Rows: |               |                           |                  |
| Export:      |               |                           |                  |
|              | Retailer      | Product                   | Total_Units_Sold |
|              | Sports Direct | Men's Street Footwear     | 54106            |
|              | Sports Direct | Women's Apparel           | 49657            |
|              | Sports Direct | Men's Athletic Footwear   | 48705            |
|              | Sports Direct | Women's Street Footwear   | 46155            |
|              | Sports Direct | Women's Athletic Footwear | 41343            |
|              | Sports Direct | Men's Apparel             | 41321            |
|              | Walmart       | Men's Apparel             | 8825             |
| Result 10 x  |               |                           |                  |

Best selling product for Sports Direct is Men Street Footwear that is 54106 units.



# What is the best selling product for all retailers?



| Retailer  | Product                   | Total_Units_Sold |
|-----------|---------------------------|------------------|
| Walmart   | Men's Apparel             | 8825             |
| Walmart   | Men's Street Footwear     | 8530             |
| Walmart   | Women's Apparel           | 8056             |
| Walmart   | Women's Street Footwear   | 6664             |
| Walmart   | Men's Athletic Footwear   | 6007             |
| Walmart   | Women's Athletic Footwear | 5347             |
| West Gear | Men's Street Footwear     | 52849            |

Best selling product for Walmart is Men's Apparel that is 8825 units.



What is the best selling product for all retailers?

|  | Retailer  | Product                   | Total_Units_Sold |
|--|-----------|---------------------------|------------------|
|  | West Gear | Men's Street Footwear     | 52849            |
|  | West Gear | Men's Athletic Footwear   | 47631            |
|  | West Gear | Women's Street Footwear   | 45184            |
|  | West Gear | Women's Apparel           | 44007            |
|  | West Gear | Women's Athletic Footwear | 38532            |
|  | West Gear | Men's Apparel             | 36014            |

Result 10 X

Best selling product for West Gear is Men Street Footwear that is 52849 units.

# What was the total sales for each year?

```
34
35  -- What was the total sales for each year?
36 •  SELECT Year, SUM(Total_Sales) AS Total_Sales
37    FROM adidas_data
38    GROUP BY Year;
```

Result Grid



Filter Rows:

Export:



Wrap Ce

|   | Year | Total_Sales |
|---|------|-------------|
| ▶ | 2020 | 10735184    |
|   | 2021 | 22207081    |

In 2021, \$22,207,081 was realised from sales , a 106% increase from the previous year.

```
40 -- What is the most and least profitable product?
41 -- Most profitable product
42 • SELECT Product, SUM(Operating_Profit) AS Total_Profit
43 FROM adidas_data
44 GROUP BY Product
45 ORDER BY Total_Profit DESC
46 LIMIT 1;
```

Result Grid |  Filter Rows:  | Export:  | Wrap Cell Content:

|   | Product               | Total_Profit |
|---|-----------------------|--------------|
| ▶ | Men's Street Footwear | 3766126      |

## Most Profitable Product

## Least Profitable Product

```
47 -- Least profitable product
48 • SELECT Product, SUM(Operating_Profit) AS Total_Profit
49 FROM adidas_data
50 GROUP BY Product
51 ORDER BY Total_Profit ASC
52 LIMIT 1;
```

Result Grid |  Filter Rows:  | Export:  | Wrap Cell Content:

|   | Product                   | Total_Profit |
|---|---------------------------|--------------|
| ▶ | Women's Athletic Footwear | 1977951      |

# What is the profit spread across different sales methods?

```
54 -- What is the profit spread across different sales methods?
55 • SELECT Sales_Method, SUM(Operating_Profit) AS Total_Profit
56 FROM adidas_data
57 GROUP BY Sales_Method;
```

Result Grid |   Filter Rows:  | Export:  | Wrap Cell Content: 

|   | Sales_Method | Total_Profit |
|---|--------------|--------------|
| ▶ | Outlet       | 4946418      |
|   | Online       | 5956009      |
|   | In-store     | 5342562      |

The online purchase method accounted for the highest profit, in-store, the second most profitable while the outlet purchase accounts for the least, with \$5.95m, \$5.34m and \$4.94m profits respectively.



# What is the most profitable sales methods for all retailers?

```
59 -- What is the most profitable sales method for all retailers?
60 • SELECT Retailer, Sales_Method, SUM(Operating_Profit) AS Total_Profit
61 FROM adidas_data
62 GROUP BY Retailer, Sales_Method
63 ORDER BY Retailer, Total_Profit DESC;
```

| Result Grid | Filter Rows: | Export:      | Wrap Cell Content: |
|-------------|--------------|--------------|--------------------|
| Retailer    | Sales_Method | Total_Profit |                    |
| Amazon      | Online       | 310724       |                    |
| Amazon      | Outlet       | 41651        |                    |
| Foot Locker | Online       | 2052396      |                    |
| Foot Locker | Outlet       | 1370291      |                    |
| Foot Locker | In-store     | 1320648      |                    |

For both Amazon and Foot Locker, the online purchase gives the most profit.

# What is the most profitable sales methods for all retailers?

| Result Grid  |               |              |              |
|--------------|---------------|--------------|--------------|
| Filter Rows: |               |              |              |
|              | Retailer      | Sales_Method | Total_Profit |
|              | Kohl's        | In-store     | 282401       |
|              | Kohl's        | Online       | 35005        |
|              | Sports Direct | Online       | 2959315      |
|              | Sports Direct | Outlet       | 1204117      |
|              | Sports Direct | In-store     | 1198010      |

For Kohl's the in-store purchase gives the most profit.  
For Sports Direct, online purchase gives the most profit.

# What is the most profitable sales methods for all retailers?

| Result Grid   |              | Filter Rows: |
|---------------|--------------|--------------|
| Retailer      | Sales_Method | Total_Profit |
| Sports Direct | In-store     | 1198010      |
| Walmart       | Outlet       | 716271       |
| Walmart       | Online       | 26119        |
| West Gear     | In-store     | 2541503      |
| West Gear     | Outlet       | 991244       |
| West Gear     | Online       | 572450       |

For Walmart the outlet purchase gives the most profit.  
For West Gear, in-store purchase gives the most profit.

```
66 -- Most profit city
67 • SELECT City, SUM(Operating_Profit) AS Total_Profit
68 FROM adidas_data
69 GROUP BY City
70 ORDER BY Total_Profit DESC
71 LIMIT 1;
72
```

Result Grid |   Filter Rows:  | Export:  | Wrap Cell Center

|   | City      | Total_Profit |
|---|-----------|--------------|
| ▶ | Charlotte | 2362331      |

# Most Profit City

# Least Profit City

```
72
73 -- Least profit city
74 • SELECT City, SUM(Operating_Profit) AS Total_Profit
75 FROM adidas_data
76 GROUP BY City
77 ORDER BY Total_Profit ASC
78 LIMIT 1;
```

Result Grid |   Filter Rows:  | Export:  | Wrap Cell Center

|   | City       | Total_Profit |
|---|------------|--------------|
| ▶ | Wilmington | 11227        |



# What are the best performing months in terms of profit generated?

```
79
80 -- What are the best performing months in terms of profit generated?
81 • SELECT Year, Month, SUM(Operating_Profit) AS Total_Profit
82 FROM adidas_data
83 GROUP BY Year, Month
84 ORDER BY Total_Profit DESC;
```

| Result Grid | Filter Rows: | Export:      | Wrap Cell Content: |
|-------------|--------------|--------------|--------------------|
| Year        | Month        | Total_Profit |                    |
| 2021        | 5            | 2599648      |                    |
| 2021        | 2            | 1774837      |                    |
| 2021        | 4            | 1747415      |                    |
| 2021        | 3            | 1687870      |                    |
| 2021        | 6            | 1583187      |                    |
| 2021        | 8            | 844107       |                    |
| 2021        | 7            | 710346       |                    |

| Result Grid |      |  |  Filter Rows: |
|-------------|------|---|--|
|             | Year | Month   | Total_Profit   |
|             | 2021 | 7   | 710346   |
|             | 2020 | 10  | 520324   |
|             | 2020 | 4   | 492781   |
|             | 2020 | 7   | 477040   |
|             | 2020 | 3   | 465665   |
|             | 2020 | 6   | 448365   |
|             | 2020 | 5   | 424352   |

Result 18

x

Highest profit of \$2.59m was made in the month of May in 2021 as compared in year 2020, highest profit of \$0.52m was made in month of October.



# Recommendations

- Promote Best-Selling and High-Profit Products: Focus marketing on top-selling and most profitable products, and introduce new variants to maintain interest.
- Optimize Sales Channels: Invest more in high-profit channels like online sales while enhancing in-store experiences and running outlet promotions for underperforming products.
- Tailor Marketing by Region and Retailer: Customize product offerings and marketing campaigns based on regional and retailer-specific demand to maximize sales.
- Expand in High-Performing Cities: Open new locations or strengthen campaigns in cities generating the most profit while improving inventory management in underperforming areas.

THE NEW ADIDAS



**stratos**  
reflection of passion





THANK YOU

