# Power BI Dashboard

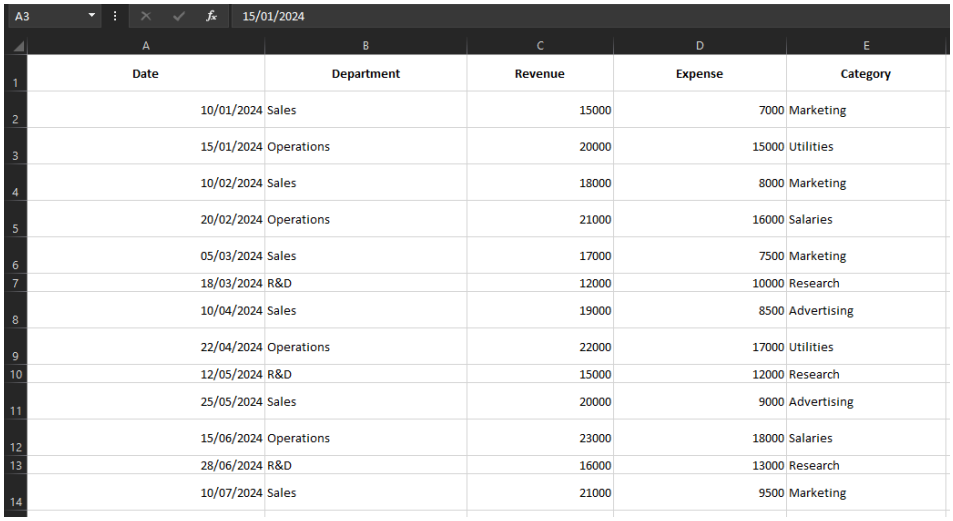
# Company Revenue & Profitability Analysis

## Objective:

To analyze the revenue, expense, and profit performance of the company over the year 2024 across departments and categories, and to identify key drivers of profitability using an interactive Power BI dashboard.

## Step 1: Dataset

- Department-wise revenue & expense
- Category-wise revenue & profit
- Monthly revenue & expense
- Profit by department & category

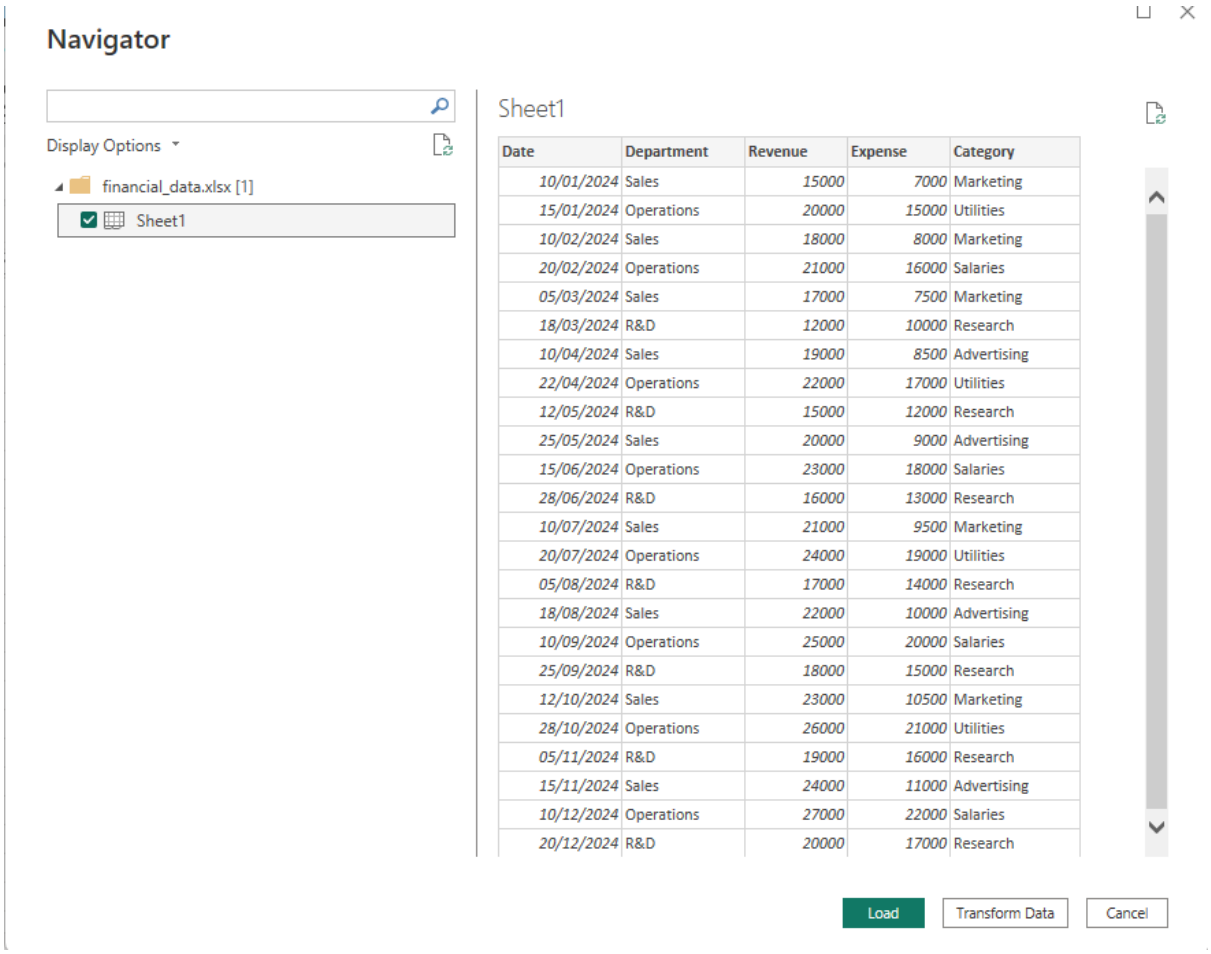


A3 | 15/01/2024

| | A | B | C | D | E |
|---|---|---|---|---|---|
| 1 | Date | Department | Revenue | Expense | Category |
| 2 | 10/01/2024 | Sales | 15000 | 7000 | Marketing |
| 3 | 15/01/2024 | Operations | 20000 | 15000 | Utilities |
| 4 | 10/02/2024 | Sales | 18000 | 8000 | Marketing |
| 5 | 20/02/2024 | Operations | 21000 | 16000 | Salaries |
| 6 | 05/03/2024 | Sales | 17000 | 7500 | Marketing |
| 7 | 18/03/2024 | R&D | 12000 | 10000 | Research |
| 8 | 10/04/2024 | Sales | 19000 | 8500 | Advertising |
| 9 | 22/04/2024 | Operations | 22000 | 17000 | Utilities |
| 10 | 12/05/2024 | R&D | 15000 | 12000 | Research |
| 11 | 25/05/2024 | Sales | 20000 | 9000 | Advertising |
| 12 | 15/06/2024 | Operations | 23000 | 18000 | Salaries |
| 13 | 28/06/2024 | R&D | 16000 | 13000 | Research |
| 14 | 10/07/2024 | Sales | 21000 | 9500 | Marketing |

## Step 2: Next Steps in Power BI

## Import Data:




| Date | Department | Revenue | Expense | Category |
|---|---|---|---|---|
| 10/01/2024 | Sales | 15000 | 7000 | Marketing |
| 15/01/2024 | Operations | 20000 | 15000 | Utilities |
| 10/02/2024 | Sales | 18000 | 8000 | Marketing |
| 20/02/2024 | Operations | 21000 | 16000 | Salaries |
| 05/03/2024 | Sales | 17000 | 7500 | Marketing |
| 18/03/2024 | R&D | 12000 | 10000 | Research |
| 10/04/2024 | Sales | 19000 | 8500 | Advertising |
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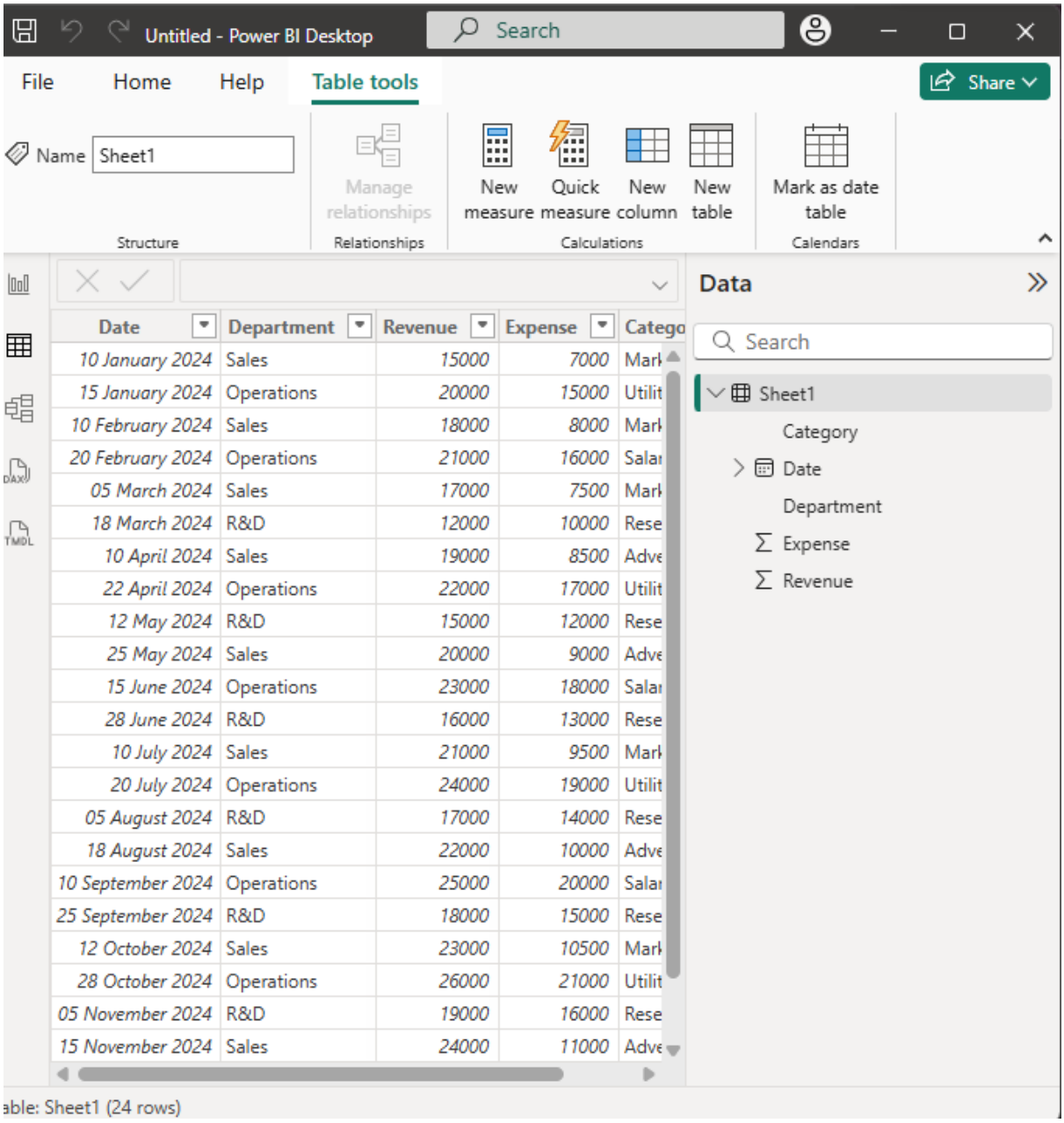
| 12/05/2024 | R&D | 15000 | 12000 | Research |
| 25/05/2024 | Sales | 20000 | 9000 | Advertising |
| 15/06/2024 | Operations | 23000 | 18000 | Salaries |
| 28/06/2024 | R&D | 16000 | 13000 | Research |
| 10/07/2024 | Sales | 21000 | 9500 | Marketing |
| 20/07/2024 | Operations | 24000 | 19000 | Utilities |
| 05/08/2024 | R&D | 17000 | 14000 | Research |
| 18/08/2024 | Sales | 22000 | 10000 | Advertising |
| 10/09/2024 | Operations | 25000 | 20000 | Salaries |
| 25/09/2024 | R&D | 18000 | 15000 | Research |
| 12/10/2024 | Sales | 23000 | 10500 | Marketing |
| 28/10/2024 | Operations | 26000 | 21000 | Utilities |
| 05/11/2024 | R&D | 19000 | 16000 | Research |
| 15/11/2024 | Sales | 24000 | 11000 | Advertising |
| 10/12/2024 | Operations | 27000 | 22000 | Salaries |
| 20/12/2024 | R&D | 20000 | 17000 | Research |

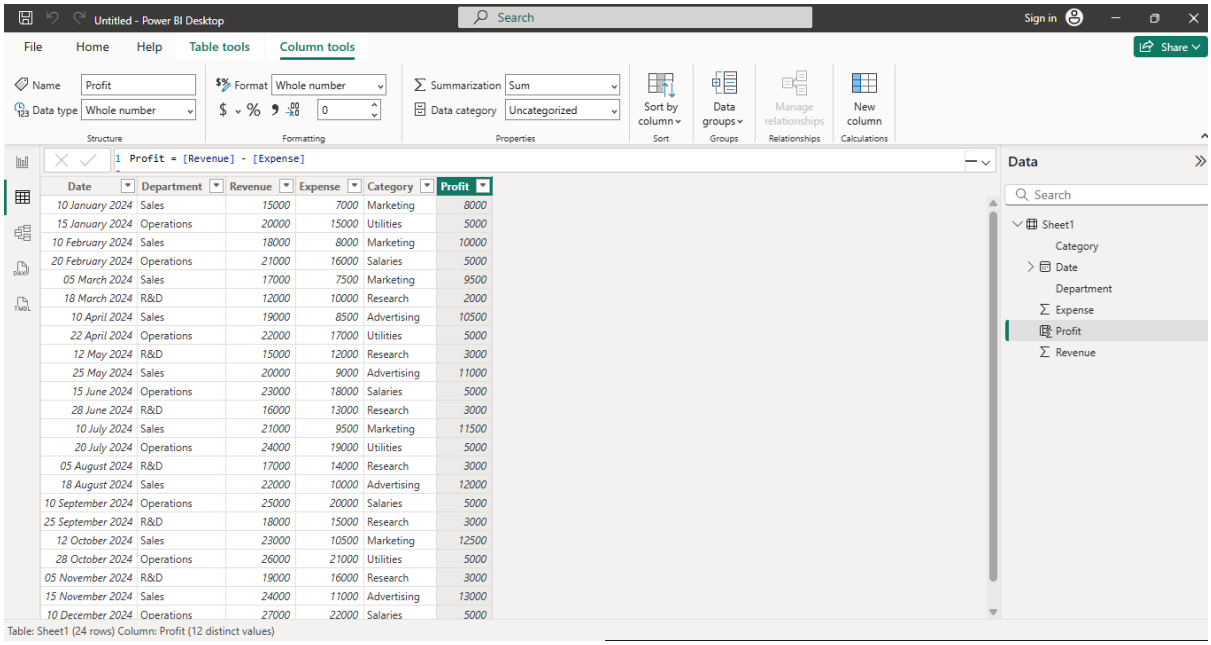
## Check Data:


Untitled - Power BI Desktop
Search
File
Home
Help
Table tools
Share
Name
Sheet1
Manage relationships
New measure
Quick measure
New column
New table
Mark as date table
Structure
Relationships
Calculations
Calendars
Data
Search
Sheet1
Category
Date
Department
Expense
Revenue
Date
Department
Revenue
Expense
10 January 2024 Sales 15000 7000
15 January 2024 Operations 20000 15000
10 February 2024 Sales 18000 8000
20 February 2024 Operations 21000 16000
05 March 2024 Sales 17000 7500
18 March 2024 R&D 12000 10000
10 April 2024 Sales 19000 8500
22 April 2024 Operations 22000 17000
12 May 2024 R&D 15000 12000
25 May 2024 Sales 20000 9000
15 June 2024 Operations 23000 18000
28 June 2024 R&D 16000 13000
10 July 2024 Sales 21000 9500
20 July 2024 Operations 24000 19000
05 August 2024 R&D 17000 14000
18 August 2024 Sales 22000 10000
10 September 2024 Operations 25000 20000
25 September 2024 R&D 18000 15000
12 October 2024 Sales 23000 10500
28 October 2024 Operations 26000 21000
05 November 2024 R&D 19000 16000
15 November 2024 Sales 24000 11000
able: Sheet1 (24 rows)

## Create New Columns/Measures:

## Create a new column Profit:

Profit = [Revenue] - [Expense]

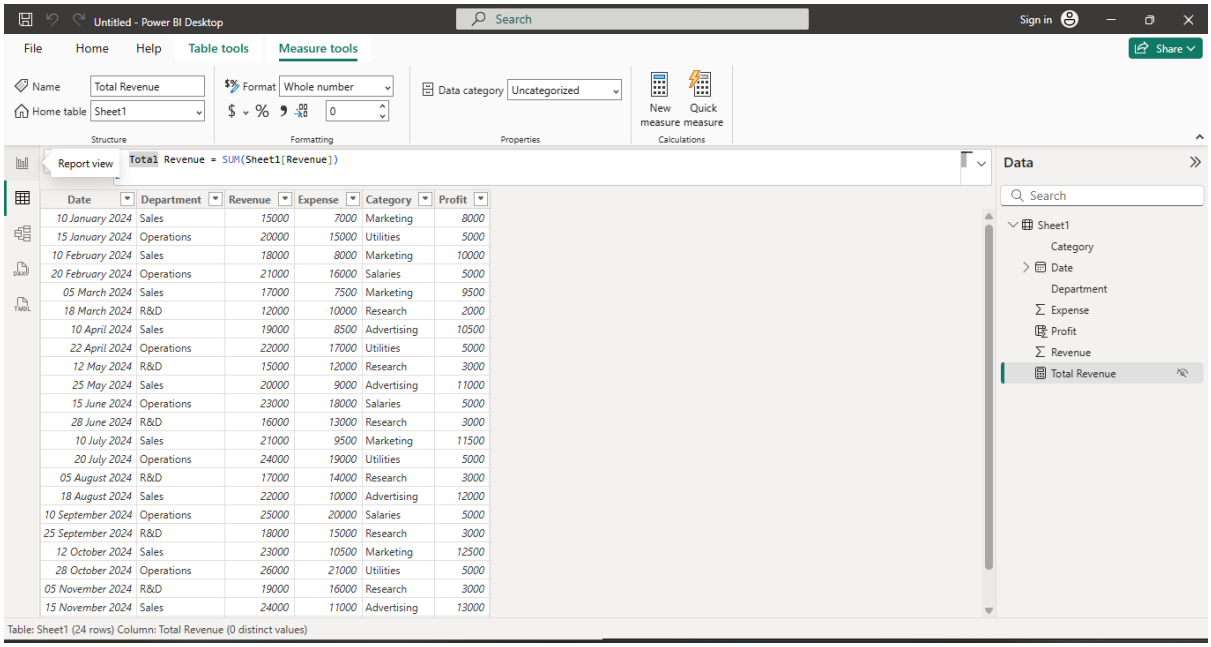



| Date | Department | Revenue | Expense | Category | Profit |
|---|---|---|---|---|---|
| 10 January 2024 | Sales | 15000 | 7000 | Marketing | 8000 |
| 15 January 2024 | Operations | 20000 | 15000 | Utilities | 5000 |
| 10 February 2024 | Sales | 18000 | 8000 | Marketing | 10000 |
| 20 February 2024 | Operations | 21000 | 16000 | Salaries | 5000 |
| 05 March 2024 | Sales | 17000 | 7500 | Marketing | 9500 |
| 18 March 2024 | R&D | 12000 | 10000 | Research | 2000 |
| 10 April 2024 | Sales | 19000 | 8500 | Advertising | 10500 |
| 22 April 2024 | Operations | 22000 | 17000 | Utilities | 5000 |
| 12 May 2024 | R&D | 15000 | 12000 | Research | 3000 |
| 25 May 2024 | Sales | 20000 | 9000 | Advertising | 11000 |
| 15 June 2024 | Operations | 23000 | 18000 | Salaries | 5000 |
| 28 June 2024 | R&D | 16000 | 13000 | Research | 3000 |
| 10 July 2024 | Sales | 21000 | 9500 | Marketing | 11500 |
| 20 July 2024 | Operations | 24000 | 19000 | Utilities | 5000 |
| 05 August 2024 | R&D | 17000 | 14000 | Research | 3000 |
| 18 August 2024 | Sales | 22000 | 10000 | Advertising | 12000 |
| 10 September 2024 | Operations | 25000 | 20000 | Salaries | 5000 |
| 25 September 2024 | R&D | 18000 | 15000 | Research | 3000 |
| 12 October 2024 | Sales | 23000 | 10500 | Marketing | 12500 |
| 28 October 2024 | Operations | 26000 | 21000 | Utilities | 5000 |
| 05 November 2024 | R&D | 19000 | 16000 | Research | 3000 |
| 15 November 2024 | Sales | 24000 | 11000 | Advertising | 13000 |
| 10 December 2024 | Operations | 27000 | 22000 | Salaries | 5000 |

## Create Key Metrics (Measures)

## Total Revenue

Total Revenue = SUM(Sheet1[Revenue])

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|---|---|---|---|---|---|
| 10 January 2024 | Sales | 15000 | 7000 | Marketing | 8000 |
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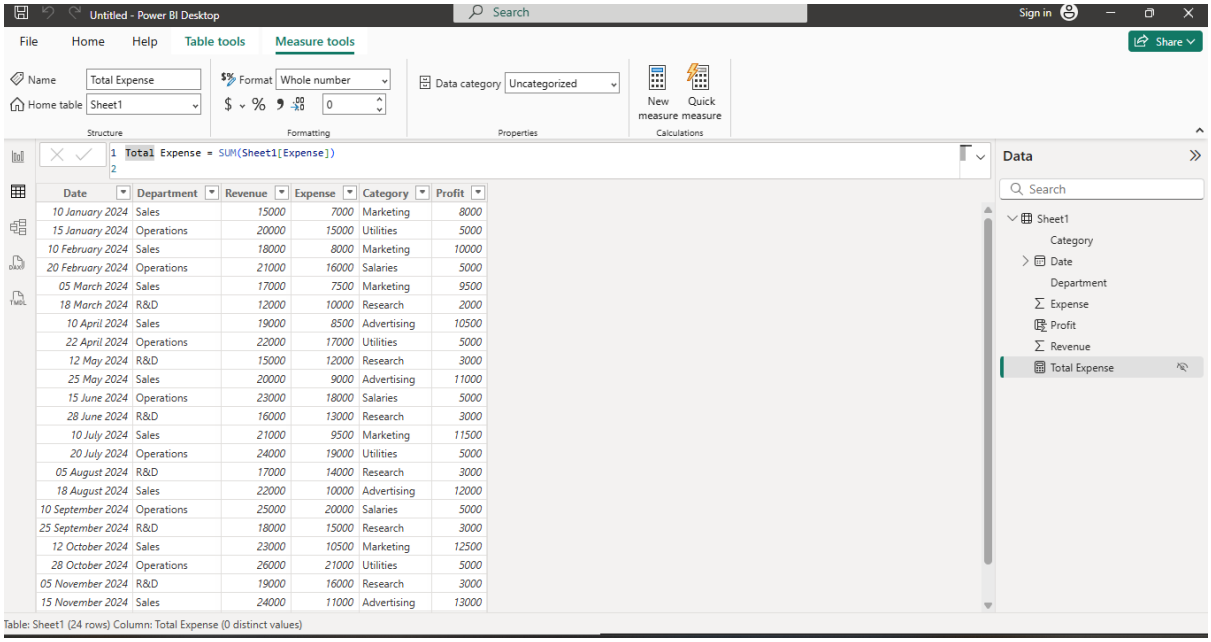
| 05 November 2024 | R&D | 19000 | 16000 | Research | 3000 |
| 15 November 2024 | Sales | 24000 | 11000 | Advertising | 13000 |

## Total Expense

Total Expense = SUM(Sheet1[Expense])

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|---|---|---|---|---|---|
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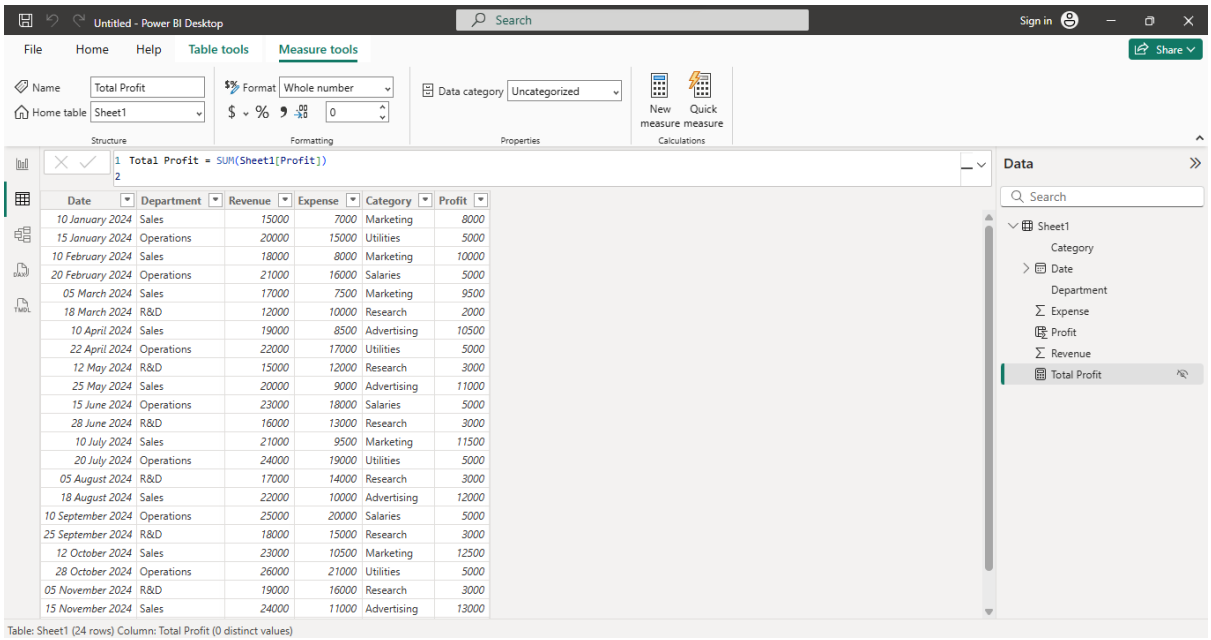
| 05 November 2024 | R&D | 19000 | 16000 | Research | 3000 |
| 15 November 2024 | Sales | 24000 | 11000 | Advertising | 13000 |

## Total Profit

Total Profit = SUM(Sheet1[Profit])

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|---|---|---|---|---|---|
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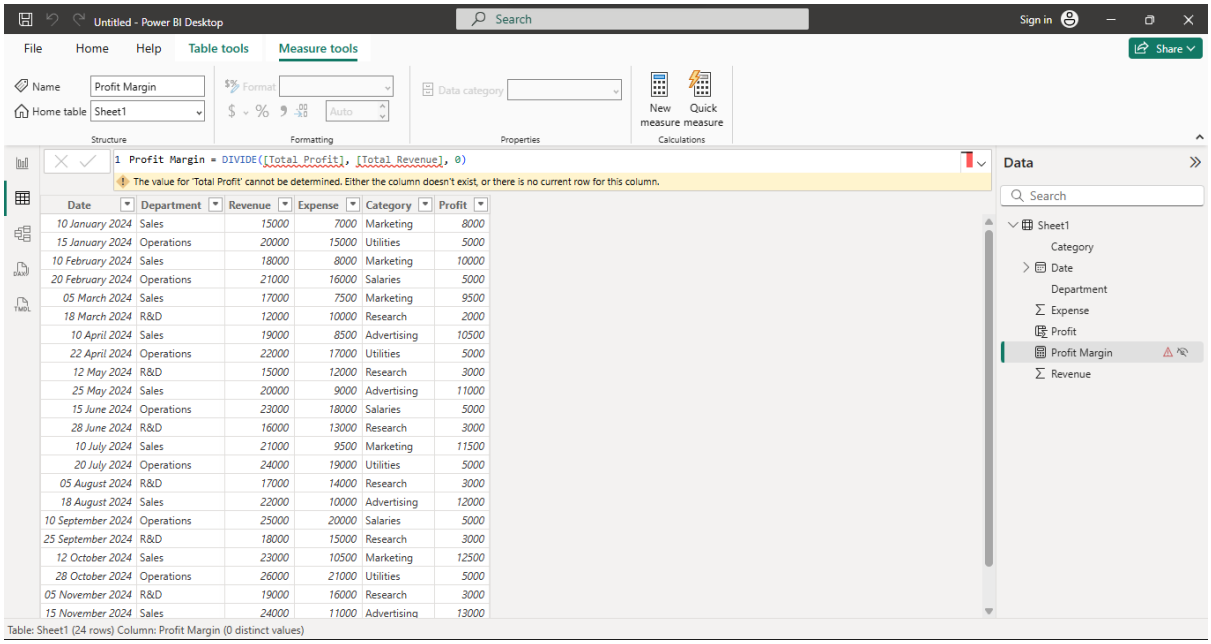
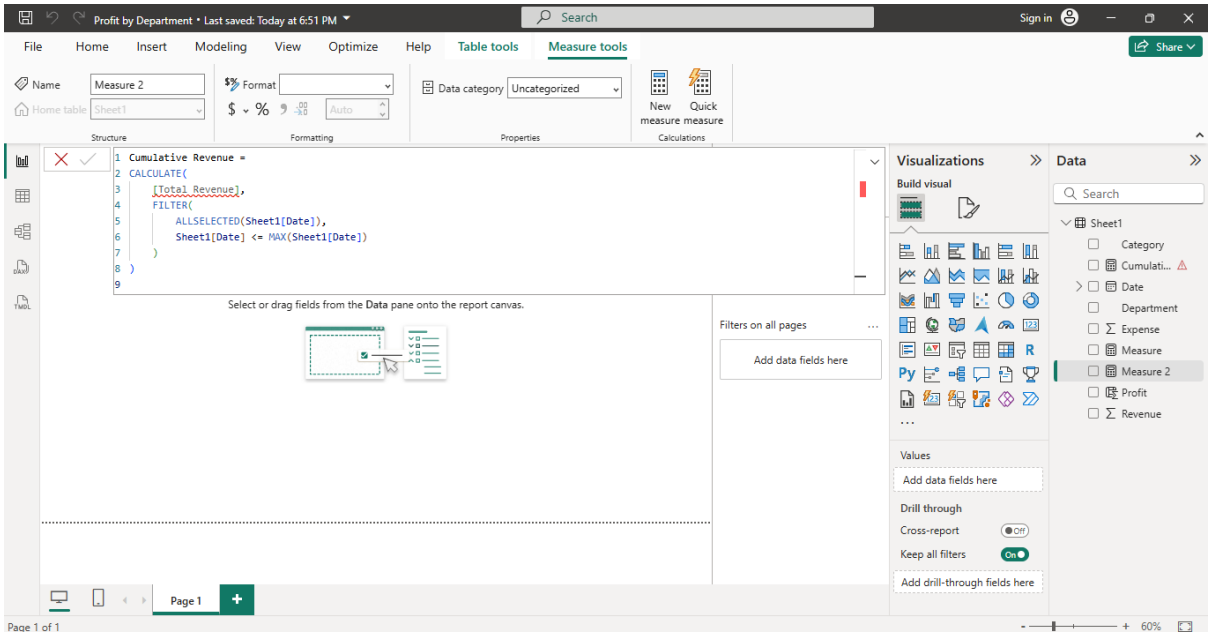
| 05 November 2024 | R&D | 19000 | 16000 | Research | 3000 |
| 15 November 2024 | Sales | 24000 | 11000 | Advertising | 13000 |

# Profit Margin

Profit Margin = DIVIDE([Total Profit], [Total Revenue], 0)

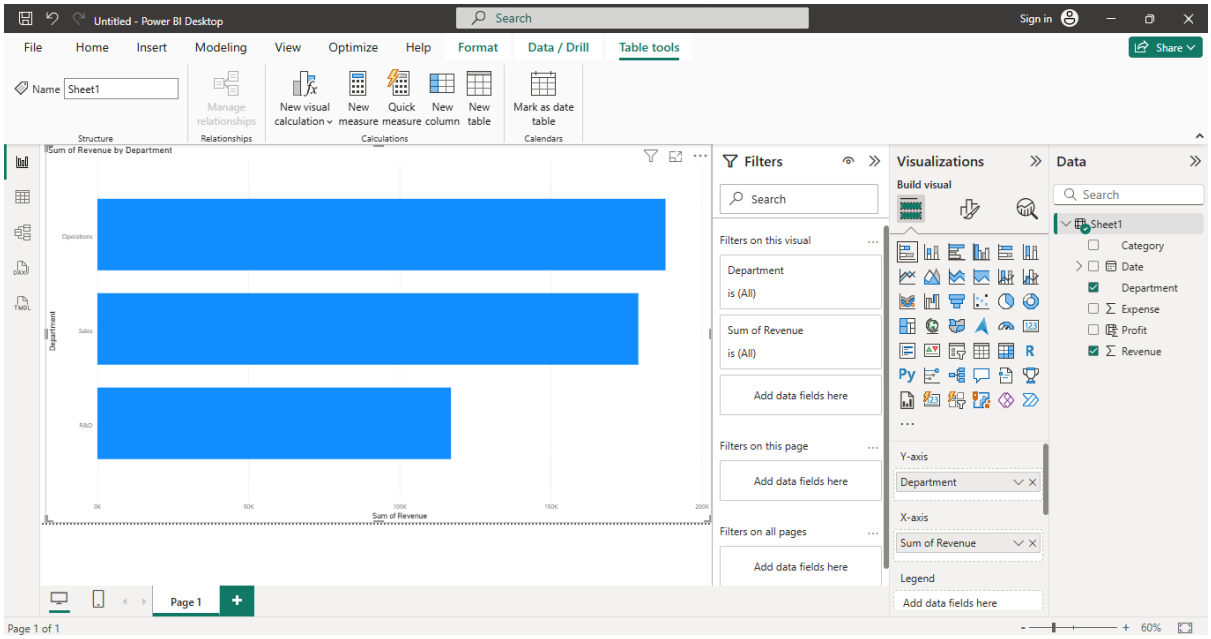



# Cumulative Revenue

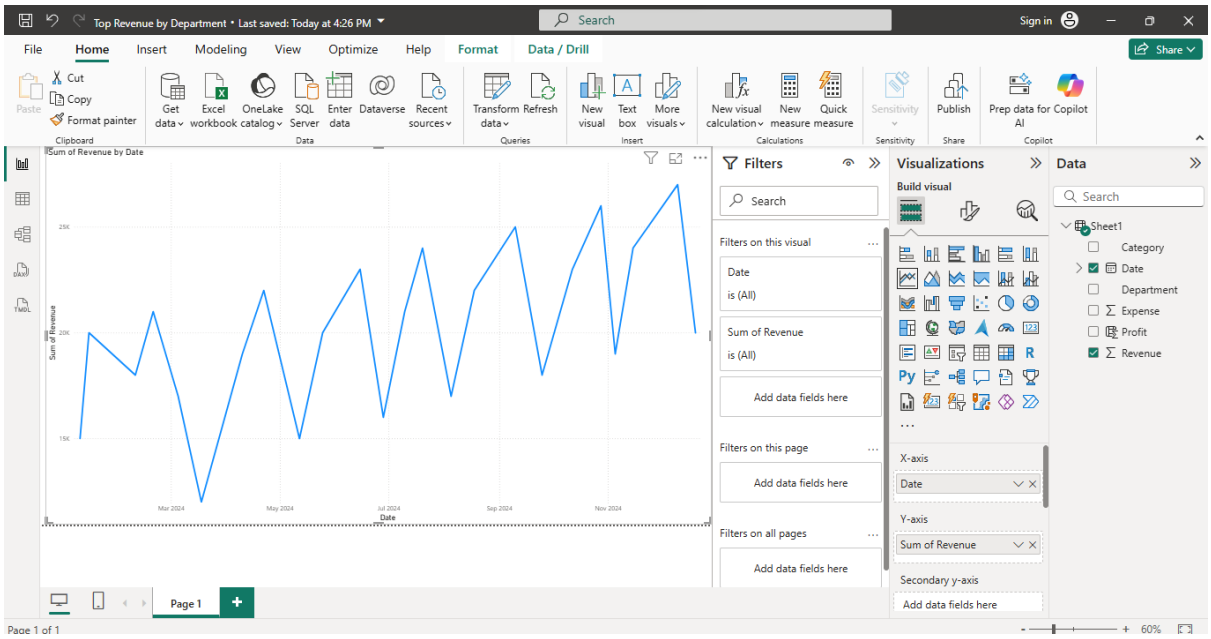


# Create Visuals

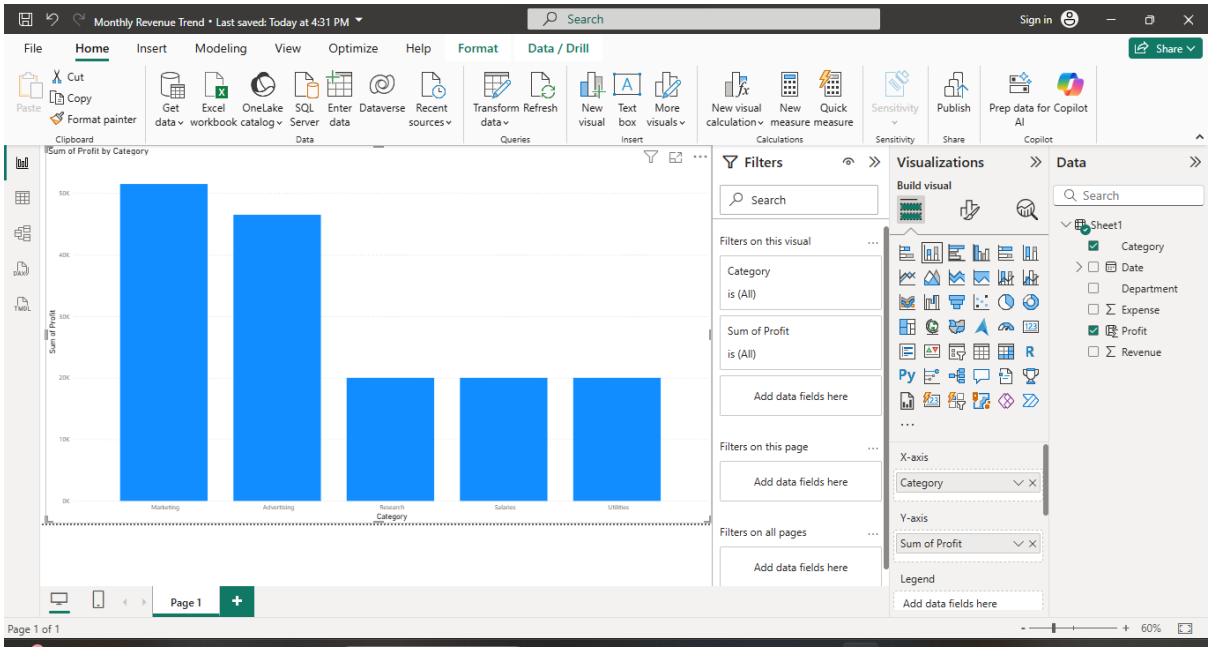
## Top Revenue by Department



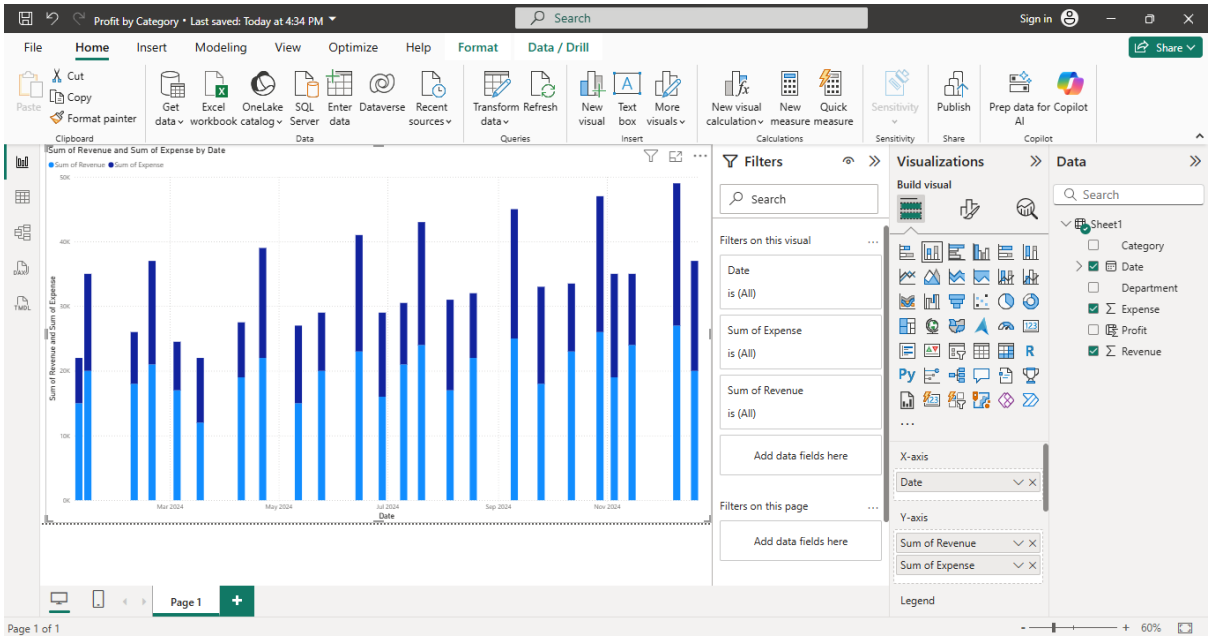

## Monthly Revenue Trend



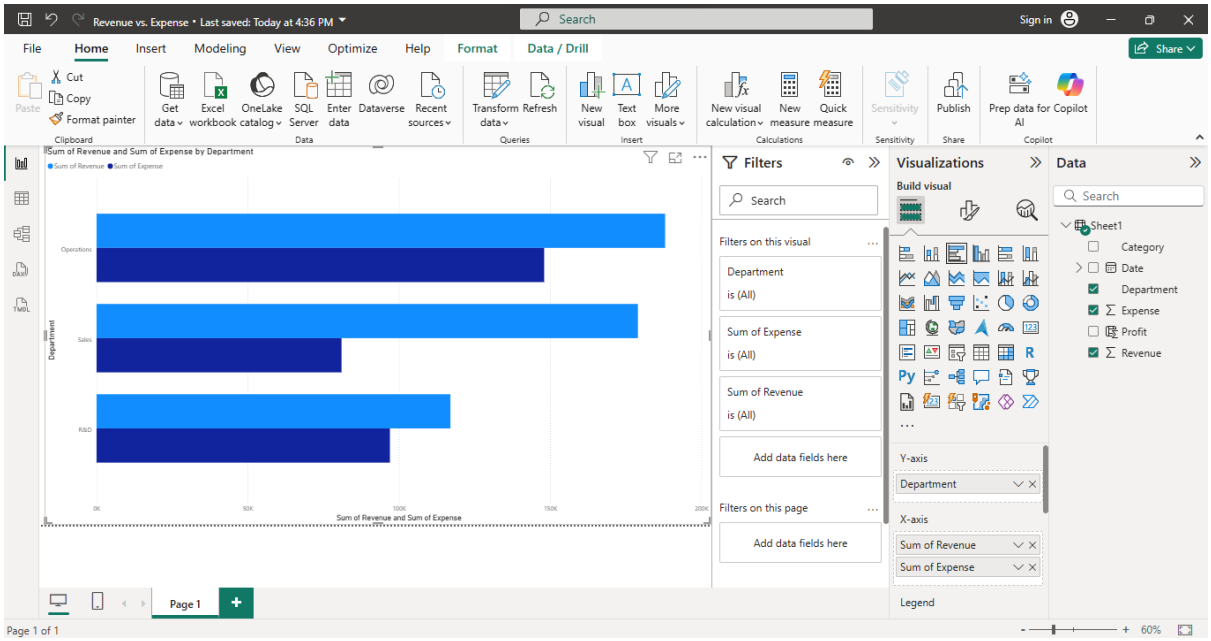
# Profit by Category




# Revenue vs. Expense

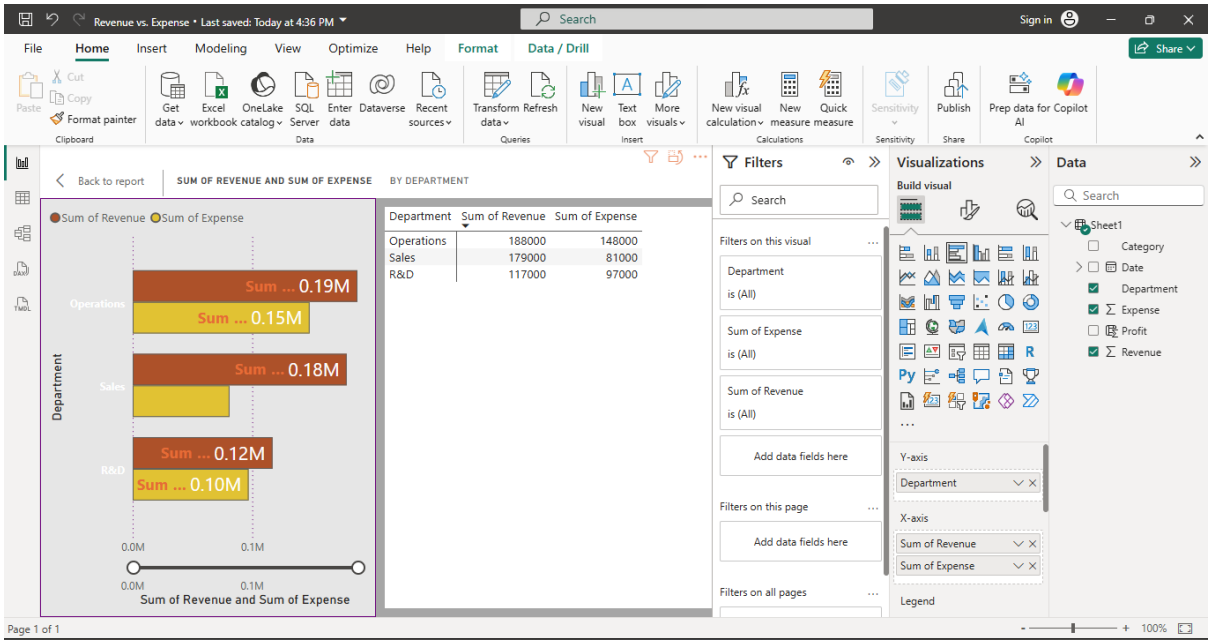


# Revenue vs Expense Bar Chart per Department.



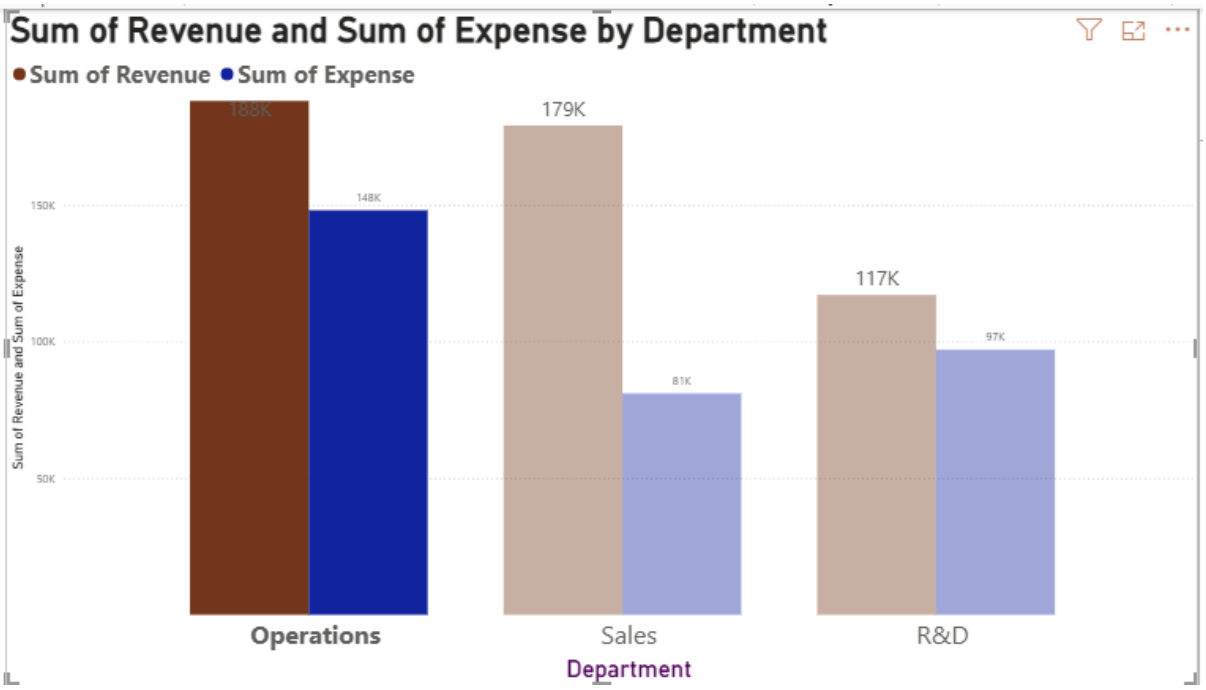

# Steps to Add KPI Cards in Power BI

## Add a Card visual

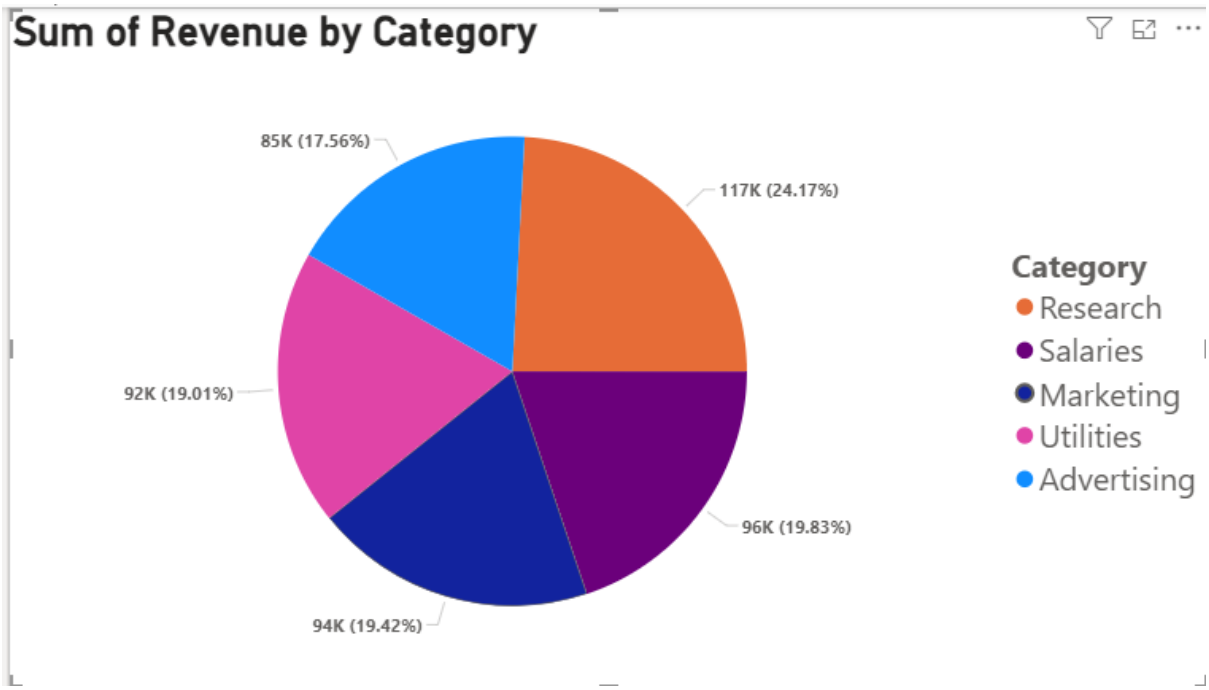


# Revenue vs Expense Analysis – 2024 Sections & Visuals

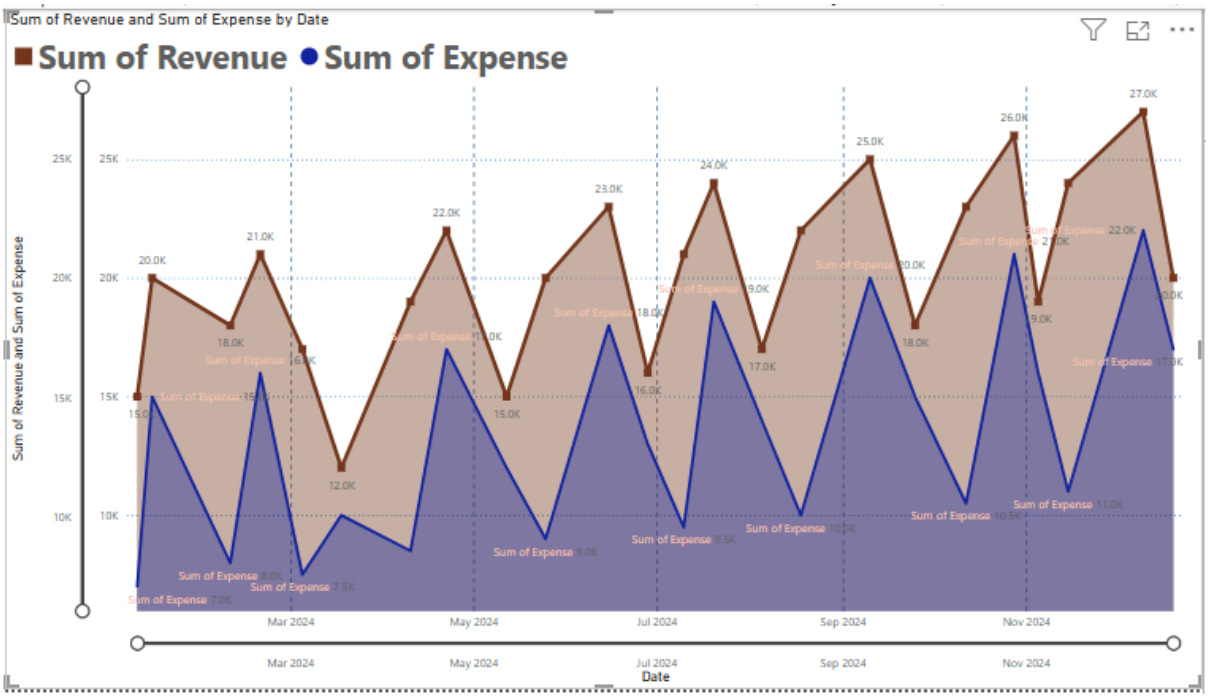
Row 1 — Bar Chart: Department Analysis



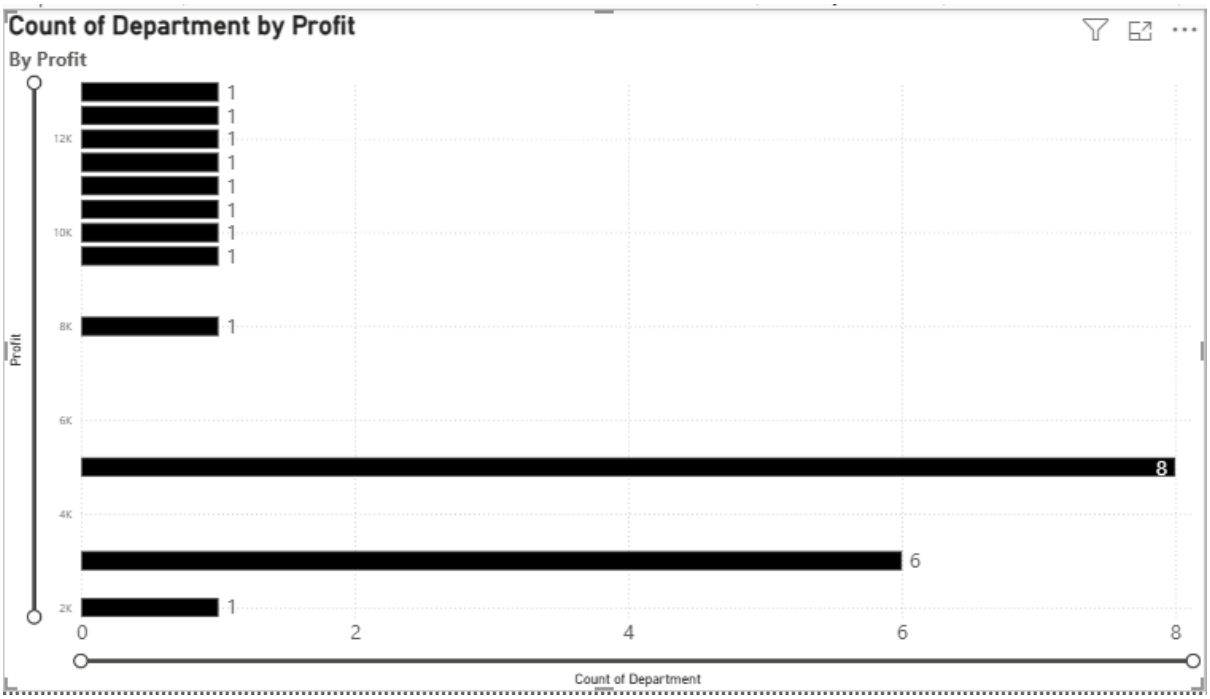

Row 2 — Pie Chart: Category Analysis



## Row 3 — Monthly Trend




## Row 4 — Profit by Department



DAX Measures

**Total Revenue**

Total Revenue = SUM(Sheet1[Revenue])

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**Total Expense**

Total Expense = SUM(Sheet1[Expense])

---

**Total Profit**

Total Profit = [Total Revenue] - [Total Expense]

---

**Profit Margin (%)**

Profit Margin (%) =

DIVIDE([Total Profit], [Total Revenue], 0)

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**Cumulative Revenue (optional – to show running total over time)**

Cumulative Revenue =

CALCULATE(

[Total Revenue],

FILTER(

ALLSELECTED(Sheet1[Date]),

Sheet1[Date] <= MAX(Sheet1[Date])

---

**Revenue per Department**

Revenue per Department = [Total Revenue]

Key Metrics:

| Metric | Value |
|---|---|
| Total Revenue | 484,000 |
| Total Expense | 326,000 |
| Total Profit | 158,000 |
| Profit Margin | 32.64% |

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**Department-wise Performance:**

| Department | Revenue | Expense | Profit |
|---|---|---|---|
| Operations | 188,000 | 148,000 | 40,000 |
| Sales | 179,000 | 81,000 | 98,000 |
| R&D | 117,000 | 97,000 | 20,000 |

- Most Profitable Department: *Sales*
- Highest Revenue: *Operations*
- Highest Expense: *Operations*
- Best Profit Margin: *Sales*

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**Category-wise Analysis:**

| Category | Revenue | Profit |
|---|---|---|
| Research | 117,000 | 20,000 |
| Salaries | 96,000 | 20,000 |
| Marketing | 94,000 | 51,500 |
| Utilities | 92,000 | 20,000 |

Category Revenue Profit

Advertising 85,000 46,500

- Top Revenue Category: *Research*
- Top Profit Contributor: *Marketing*
- *Advertising* also shows strong profitability.

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**Monthly Analysis:**

**Month Revenue Expense**

Jan 35,000 22,000

Feb 39,000 24,000

Mar 29,000 17,500

Apr 41,000 25,500

May 35,000 21,000

Jun 39,000 31,000

Jul 45,000 28,500

Aug 39,000 24,000

Sep 43,000 35,000

Oct 49,000 31,500

Nov 43,000 27,000

Dec 47,000 39,000

- *Highest Revenue Month*: December — 47,000
- *Lowest Expense Month*: March — 17,500
- *Highest Profit Month*: Likely July / October

**Insights:**

- Sales department leads in profit despite not having the highest revenue.
- Marketing & Advertising provide excellent ROI compared to cost-heavy Research & Operations.
- Expenses tend to peak in June & December — possibly due to seasonal factors.
- Profitability dips slightly in months where expenses rise significantly (e.g., June, December).

**Dashboard Features:**

- KPI Cards: Total Revenue, Expense, Profit, Margin
- Bar Chart: Revenue & Expenses by Department
- Pie Chart: Revenue & Profit by Category
- Line Chart: Monthly Trends of Revenue & Expense
- Clustered Chart: Profit by Month
- Filters: By Department, Category, Month

**Skills Showcased:**

- Data Cleaning & Transformation
- DAX Measures: Profit & Margin Calculations
- Data Visualization Best Practices
- Business Insight Generation
- Stakeholder-ready Presentation

## Tools & Technologies Used

| Tool / Technology | Purpose / Usage |
|---|---|
| Microsoft Power BI | Building the interactive dashboard, creating visualizations, and sharing insights. |
| Microsoft Excel / CSV | Data cleaning, formatting, and initial exploration of raw data before importing to Power BI. |
| DAX (Data Analysis Expressions) | Writing measures and calculated columns for KPIs like Profit, Profit Margin, etc. |
| Power Query (M language) | Data transformation & shaping while loading into Power BI. |
| Data Visualization Techniques | Best practices for creating intuitive and meaningful charts & KPIs. |