

# Financial Expense Optimization

## Problem statement:

A mid-size enterprise tracks expenses across departments such as HR, IT, Finance, and Operations. Despite stable revenue, operational costs are rising, causing profit margins to shrink.

## Objective of the Project:

The primary objectives of this project are:

- To analyze department-wise and category-wise expenses
- To monitor monthly spending trends
- To compare actual expenses against budgeted values
- To identify departments exceeding budget limits
- To recommend cost-control measures using data-driven insights

## Dataset Description:

The dataset used in this project is a **Financial Management Dataset** containing more than **100 expense records**.

### Key Attributes:

- **Expense\_ID** - Unique identifier for each expense record
- **Date** - Expense transaction date
- **Month** - Month and year for trend analysis
- **Department** - HR, IT, Finance, Operations, Sales
- **Expense\_Type** - Salary, Travel, Software, Rent, Utilities, etc.
- **Actual\_Expense** - Actual amount spent
- **Budget\_Expense** - Planned budgeted amount
- **Payment\_Mode** - Cash, Card, or Bank
- **Approval\_Status** - Approved or Pending

Query Settings: ☒ Formula Bar ☒ Monospaced ☐ Column distribution ☐ Always allow ☐ Show whitespace ☐ Column profile ☒ Column quality

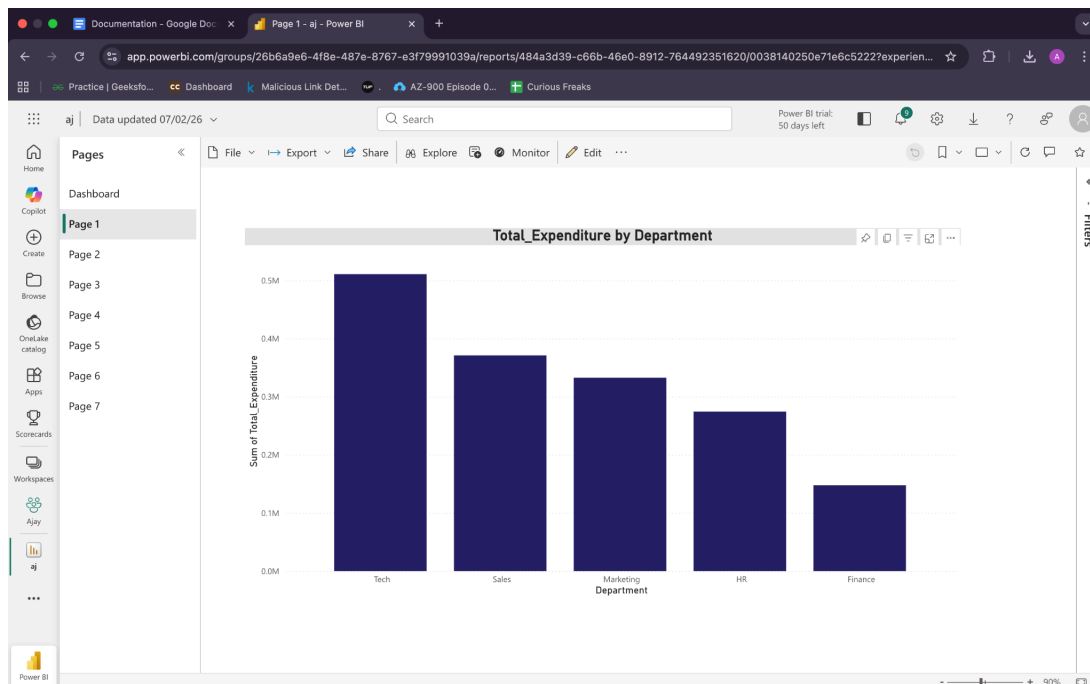
Layout: Data Preview

Queries [1]: dataset

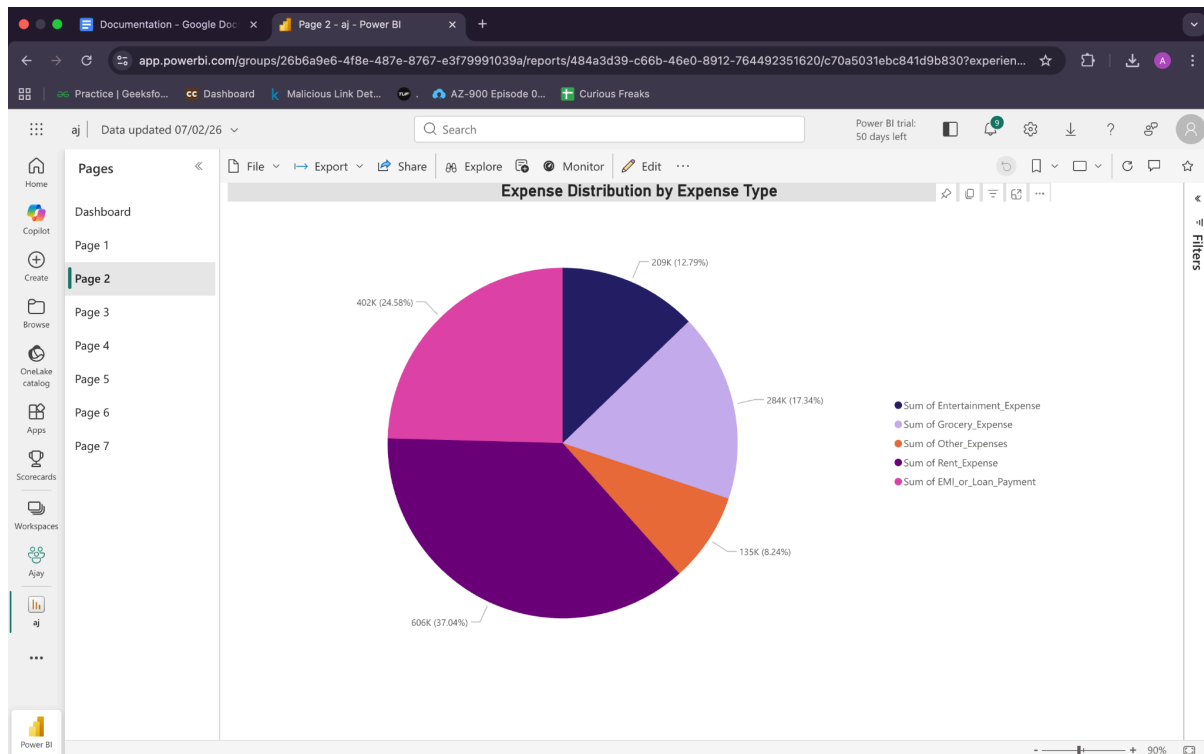
Table.TransformColumnTypes(#Promoted Headers,{{"Employee\_ID", Int64.Type}, {"Name", type text}},

Employee_ID	Name	Department	Monthly_Salary	Income_Tax
1	Employee_1	Marketing	113810	65
2	Employee_2	Marketing	85302	46
3	Employee_3	Sales	84987	67
4	Employee_4	Sales	50379	36
5	Employee_5	Tech	35695	40
6	Employee_6	Sales	39116	22
7	Employee_7	Tech	51319	44
8	Employee_8	Sales	51417	46
9	Employee_9	Tech	82581	60
10	Employee_10	Tech	62325	77
11	Employee_11	HR	96784	96
12	Employee_12	Marketing	80432	70
13	Employee_13	Tech	64973	82
14	Employee_14	Tech	96542	136
15	Employee_15	Sales	100697	146
16	Employee_16	Tech	61385	34
17	Employee_17	Tech	46828	54
18	Employee_18	Sales	70857	60
19	Employee_19	HR	32757	38
20	Employee_20	Finance	73309	41
21	Employee_21	HR	83354	57
22	Employee_22	Marketing	77044	72

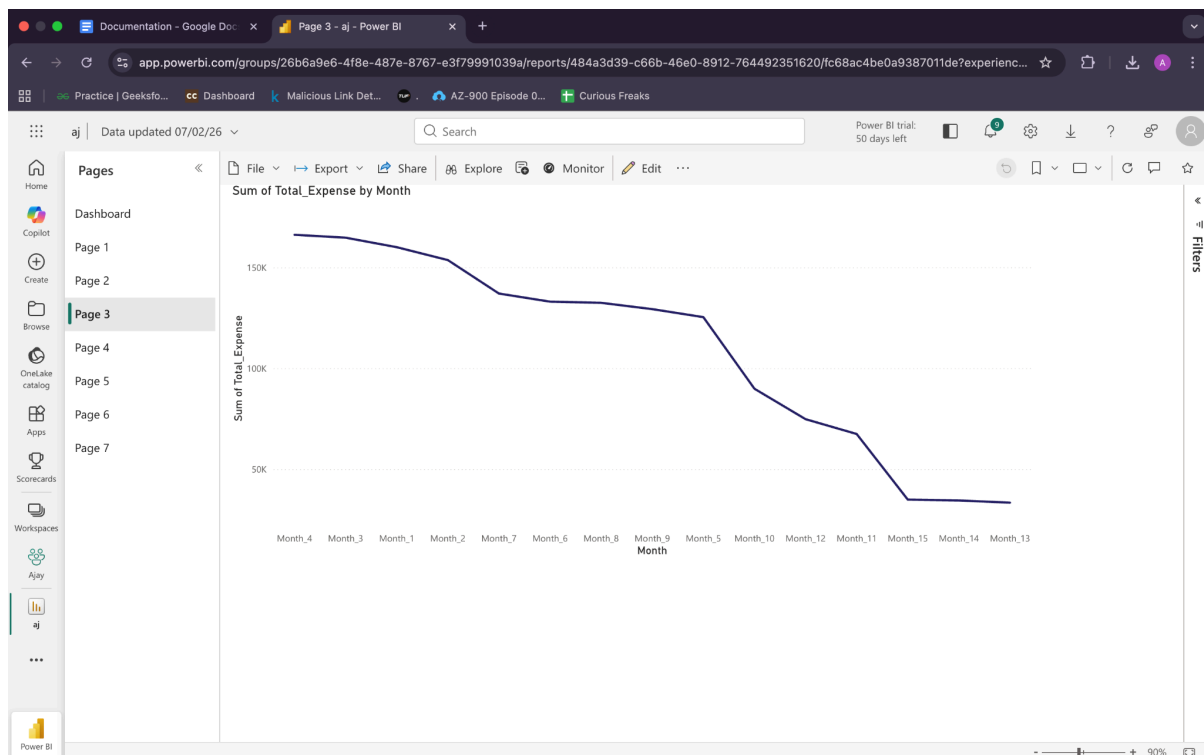
Which departments incur the highest total expenses?



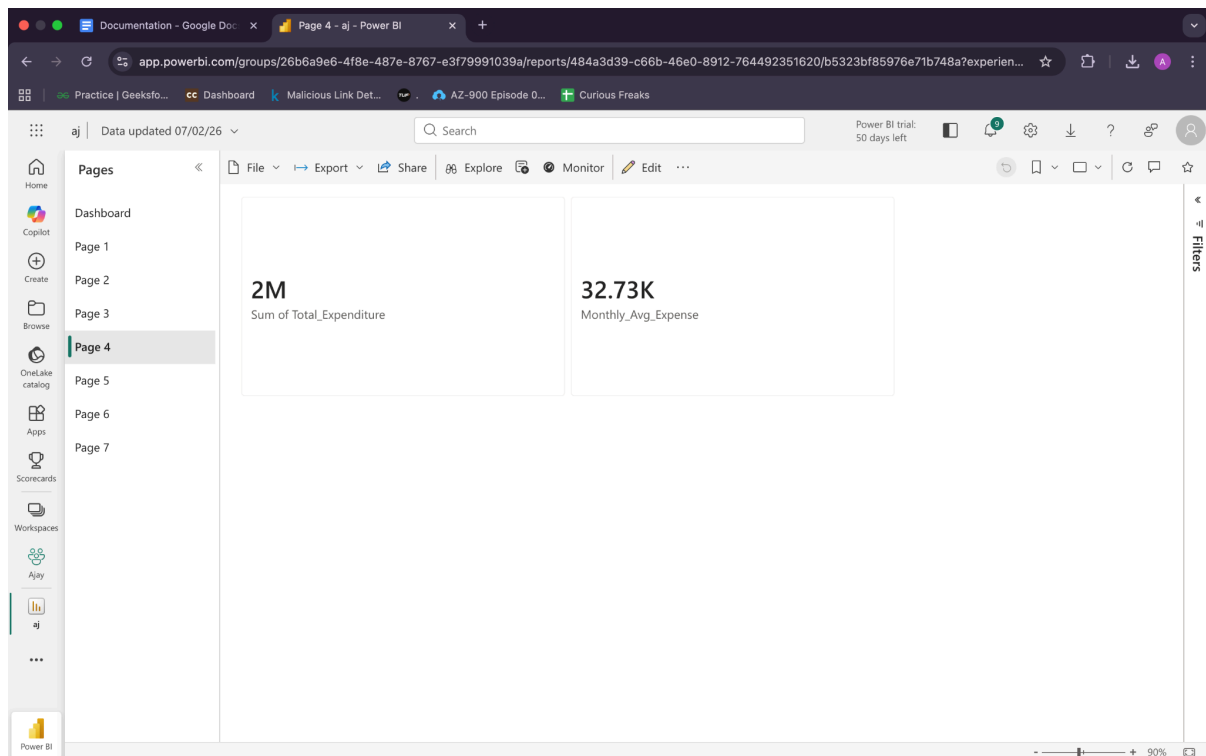
## Analyze expense distribution across expense types



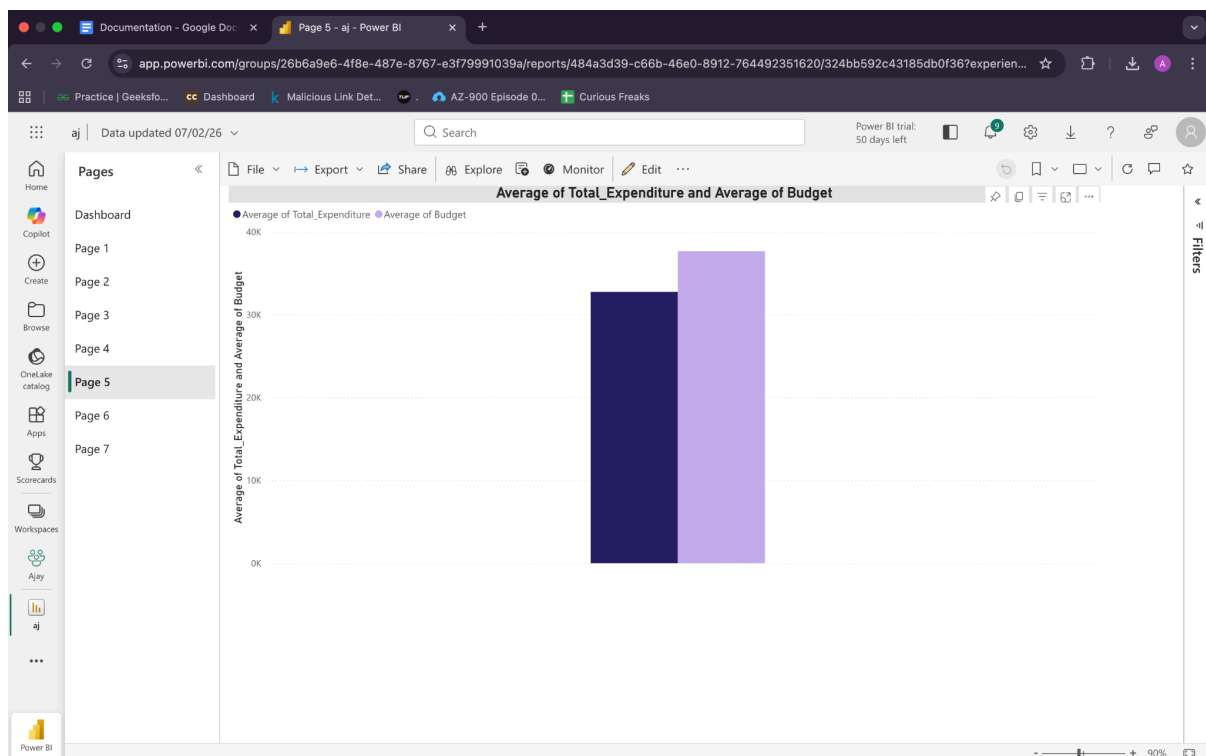
## How do monthly expenses trend over time?



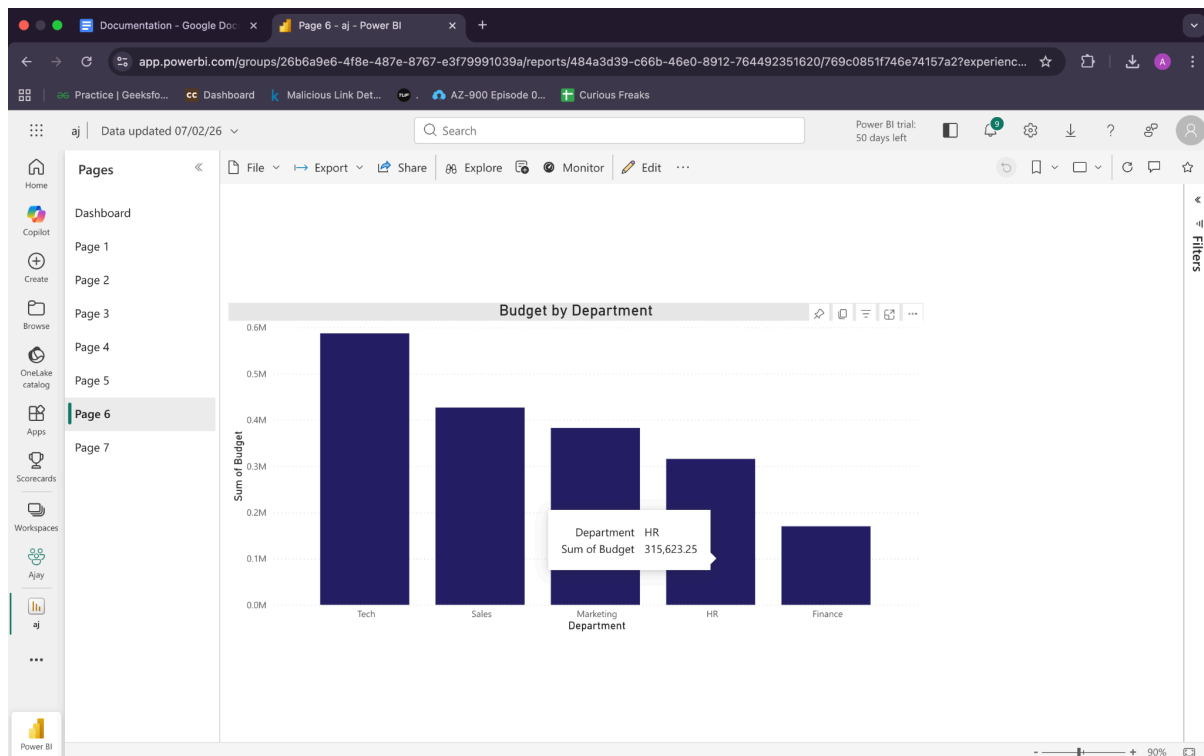
Create DAX measures for Total Expenses and Monthly Average Expense.



Compare actual expenses against budget using visuals.



Identify departments exceeding budget limits.



What cost-control actions can be recommended?

The organization should enforce department-wise budget limits with continuous expense monitoring to control overspending. High-cost expense categories need regular review to eliminate waste and optimize vendor contracts. Monthly expense trend analysis and budget-versus-actual comparisons can help detect cost overruns early.

Dashboard-driven insights will support informed decision-making and promote financial discipline.

Dashboard:

