💾 Personal Transaction History Dashboard – PDF to Power BI Project

A complete Data Analytics project using a bank statement PDF, transformed using Python and Power BI to create an interactive, drill-down financial dashboard.

🌟 Project Objectives

- Extract transaction data from a **bank statement in PDF format**
- Clean and transform the data using **Python** and **Power BI**
- Build an interactive, insightful **Power BI Dashboard**
- Enable **drill-down**, **drill-through**, **tooltips**, **bookmarks**, and **top 5 analysis**
- Share the dashboard in a professional format via Power BI Service & GitHub

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💪 Tech Stack

Tool	Purpose
Python (pdfplumber, pandas)	Extract and convert PDF to CSV
Power BI Desktop	Clean, transform, model, visualize
DAX (Power BI)	Create measures, logic, KPIs
GitHub	Documentation and source file sharing

📊 Project Workflow

🔷 1. PDF to CSV (via Python)

- Used pdfplumber to extract text from PDF
- Regex and string logic to extract:
    - Date, Type, Amount, Paid To / Received From, Category, etc.
- Final output: transactions.csv

🔷 2. Load Data in Power BI

- Loaded the .csv file into Power BI
- Columns used in the Power BI data model (based on the final dashboard):
    - Amount
    - Date
    - Month - Yr
    - Year

- o Paid
- o Received
- o Net Balance
- o Net Balance %
- o Name
- o Transaction Type
- o Line Chart Measure
- o Dynamic Title
- o Rank by Amount
- Used **Power Query** to:
  - o Remove empty rows, trim whitespace
  - o Standardize names
  - o Extract Month and Year from Date column

◆ 3. Create Unified Fields

ℹ **Note:** In the final dataset, a PersonName column was not present directly. Instead, the names used in visuals (such as Donut Charts for Top 5 Paid/Received) were derived directly from the Paid To and Received From columns without creating a new calculated column.

DAX
 PersonName = IF([Type] = "Paid", [Paid To], [Received From])

◆ 4. Create Measures

 Paid = CALCULATE(SUM([Amount]), [Type] = "Paid")
 Received = CALCULATE(SUM([Amount]), [Type] = "Received")
Net Balance = [Total Received] - [Total Paid]
Net Balance % = DIVIDE([Net Balance], [Total Received])

◆ 5. Visualization & Dashboard

Created multiple report pages with:

- KPIs: Paid, Received, Net Balance, %
- Slicers: Month-Year, Year, Transaction Type
- Donut Charts: Top 5 Paid To / Received From Names
- Stacked Column Chart: Monthly summary (with drill-down to person names)
- Area Chart: Net balance over time
- Drill-through Page: Person-wise details table with back button
- Tooltips: Custom tooltip pages for **Paid by Date** and **Received by Date**
- Bookmarks and Buttons:
  - o **Show/Hide Panels** using bookmarks
  - o **Back Buttons** on drill-through pages
  - o **Refresh** button to reset visuals with bookmark states

📊 Report Pages Overview

📍 Page 1: Main Dashboard

- Overview of monthly transactions
- Top KPIs and summary visuals
- Donut charts with drill-through to Person Details
- Stacked column chart with drill-down from Month-Year to individual transaction names
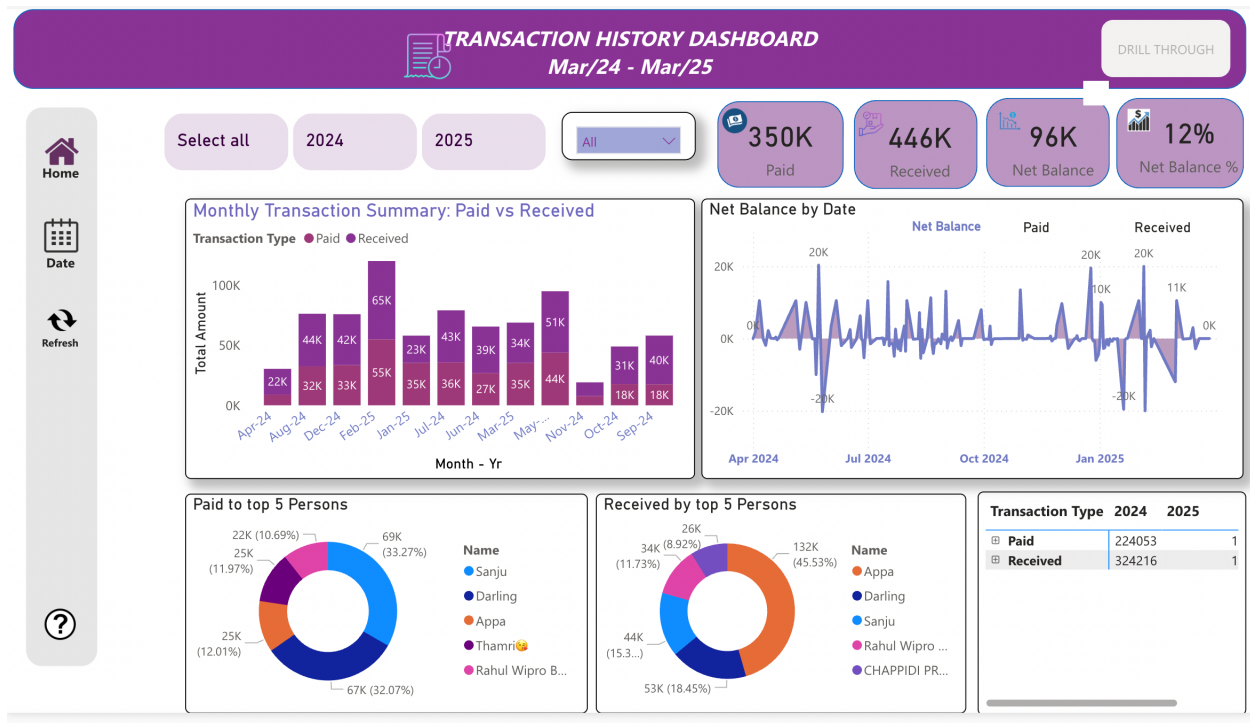
📍 Page 2: Category View

- View by transaction type or category
- Filter transactions and visualize by Date
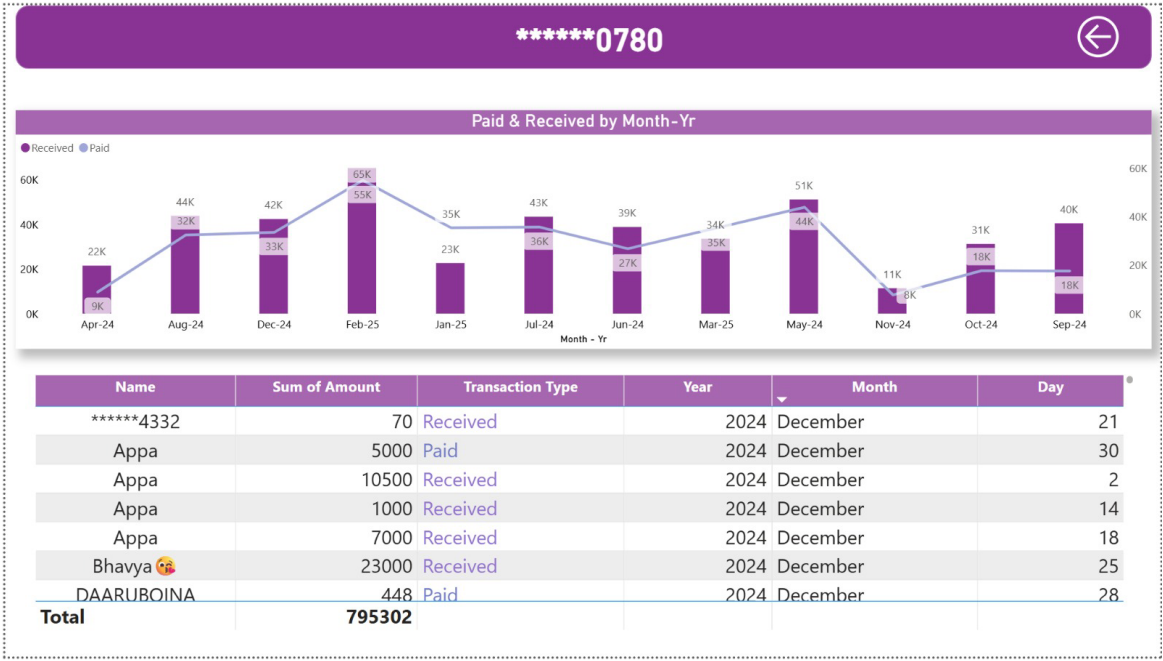
📍 Page 3: Person Drill-Through

- Unified transaction table with Paid and Received
- Triggered from main dashboard donut or bar charts
- Supports drill-through by the name shown in 'Paid To' or 'Received From'

📸 Screenshots

main_dashboard.png

person_details.png

Name	Sum of Amount	Transaction Type	Year	Month	Day
******4332	70	Received	2024	December	21
Appa	5000	Paid	2024	December	30
Appa	10500	Received	2024	December	2
Appa	1000	Received	2024	December	14
Appa	7000	Received	2024	December	18
Bhavya 🥰	23000	Received	2024	December	25
DAARUBOINA	448	Paid	2024	December	28
Total	795302				

🚀 How to Use

1. Clone/download this repository
2. Open Transaction History.pbix in Power BI Desktop
3. Explore all pages and test interactivity
4. (Optional) Republish it to Power BI Service under "My Workspace"

🗂️ Repository Structure

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Transaction-History-Dashboard/

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├── data/   ← raw and cleaned data

│   ├── Transaction History.pdf

│   └── transactions.csv

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├── notebooks/   ← Python script or notebook

│   └── extract_pdf_to_csv.py or .ipynb

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|
├── dashboard/          ← Power BI file and screenshots
|    ├── Transaction History.pbix
|    ├── main_dashboard.png
|    └── person_details.png
|
├── docs/               ← Documentation (PDF format)
|    └── Transaction History Dashboard.pdf
|
└── README.md           ← The main GitHub documentation
```

✅ Conclusion

This project demonstrates a full-stack Data Analytics workflow from **raw PDF to interactive dashboard**, with strong use of **Power BI, Python, DAX**, and real-world finance data logic. It's ideal for showcasing ETL, data modeling, interactivity (drill-down, drill-through, tooltips, bookmarks), and visualization skills for job portfolios or freelance proposals.