Personal Investment Portfolio Tracker Using Power BI

– Designed by Divakaran S

PROJECT DOCUMENTATION

1. Project Overview

This Power BI dashboard provides a consolidated view of personal investment data across various brokers and asset types. It helps track total investment, quantity, and monthly trading trends with interactive visuals.

2. Tools Used

- Microsoft Power BI
- Power Query Editor
- Data Source: CSV or Excel files

3. Dataset Description

Below are the key tables used in the project:

Table Name	Purpose
Brokers	List of broker names (e.g., Zerodha)
Assets	Asset names, types, and categories
Investment Transactions	Buy/sell transaction data with dates, quantity, and value
Assets Types	Types of Assets (e.g., ETF, Bonds, Crypto)
Market Prices	Certain Date Market Prices
Date	Whole Year dates

4. Steps with Screenshots

Step 1: Data Import

Imported CSV files into Power BI and previewed them in Power Query Editor
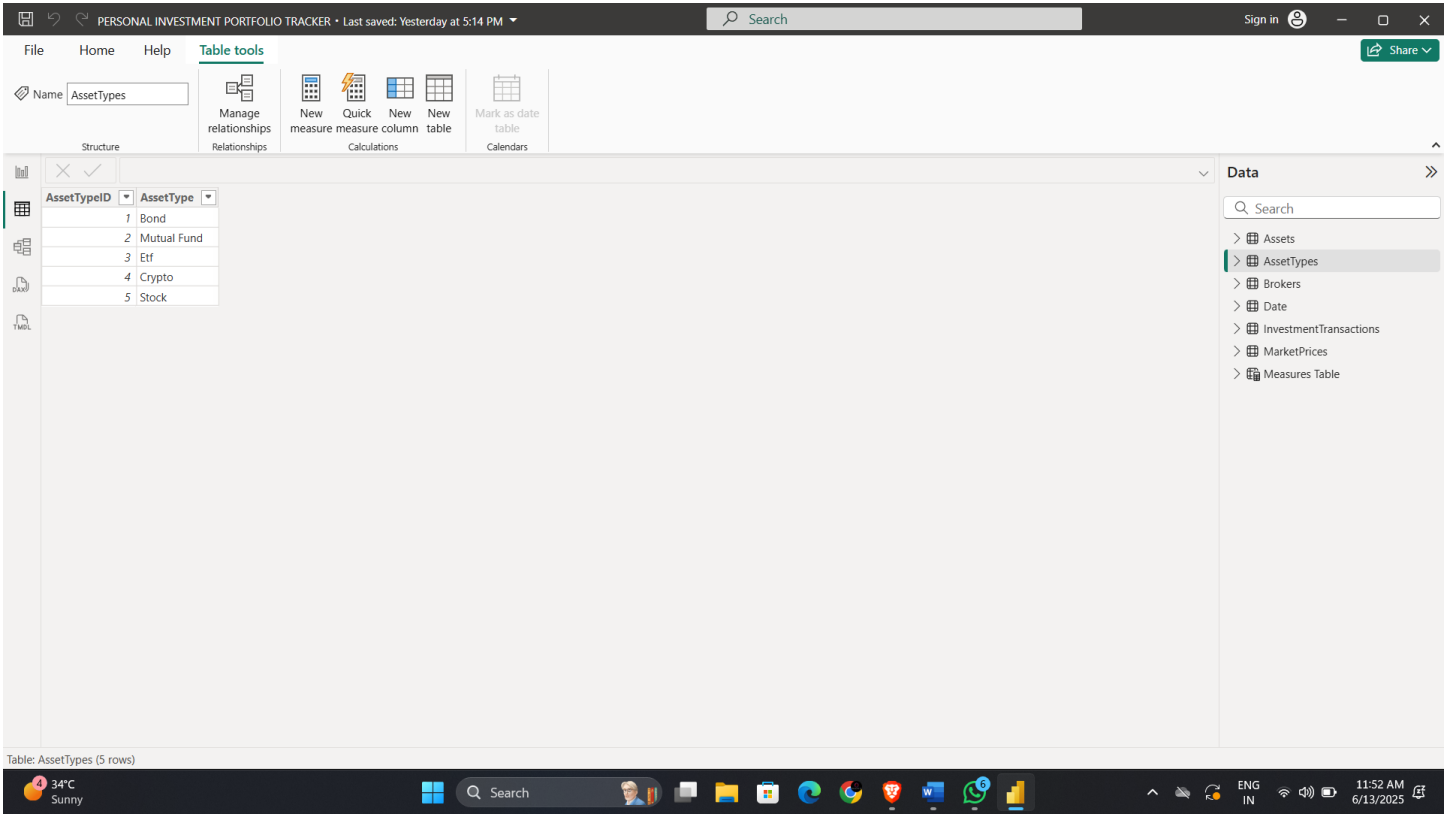
Step 2: Data Cleaning in Power Query

Removed nulls, replaced placeholder values like "--", and ensured data types were correct.

Screenshot 1 — Date Query

File | Home | Transform | Add Column | View | Tools | Help

Close & Apply | New Source | Recent Sources | Enter Data | Data source settings | Manage Parameters | Refresh Preview | Manage | Properties | Advanced Editor | Choose Columns | Remove Columns | Keep Rows | Remove Rows | Split Column | Group By | Data Type: Date | Use First Row as Headers | Replace Values | Merge Queries | Append Queries | Combine Files | Text Analytics | Vision | Azure Machine Learning

= Table.TransformColumnTypes(#"Trimmed Text",{{"Year", Int64.Type}})

Queries [6]:
- AssetTypes
- Brokers
- Date
- InvestmentTransactions
- MarketPrices
- Assets

	Date	Month	Year	Quarter
	Valid 100%	Valid 100%	Valid 100%	Valid 100%
	Error 0%	Error 0%	Error 0%	Error 0%
	Empty 0%	Empty 0%	Empty 0%	Empty 0%
1	1/1/2025	January	2025	Q1
2	1/2/2025	January	2025	Q1
3	1/3/2025	January	2025	Q1
4	1/4/2025	January	2025	Q1
5	1/5/2025	January	2025	Q1
6	1/6/2025	January	2025	Q1
7	1/7/2025	January	2025	Q1
8	1/8/2025	January	2025	Q1
9	1/9/2025	January	2025	Q1
10	1/10/2025	January	2025	Q1
11	1/11/2025	January	2025	Q1
12	1/12/2025	January	2025	Q1
13	1/13/2025	January	2025	Q1
14	1/14/2025	January	2025	Q1
15	1/15/2025	January	2025	Q1
16	1/16/2025	January	2025	Q1
17	1/17/2025	January	2025	Q1
18	1/18/2025	January	2025	Q1
19	1/19/2025	January	2025	Q1
20	1/20/2025	January	2025	Q1
21	1/21/2025	January	2025	Q1
22	1/22/2025	January	2025	Q1
23	1/23/2025	January	2025	Q1
24	1/24/2025	January	2025	Q1
25	1/25/2025	January	2025	Q1

Query Settings — PROPERTIES — Name: Date

All Properties

APPLIED STEPS:
- Source
- Promoted Headers
- Changed Type
- Trimmed Text
- Changed Type1

4 COLUMNS, 365 ROWS   Column profiling based on top 1000 rows

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Screenshot 2 — InvestmentTransactions Query

File | Home | Transform | Add Column | View | Tools | Help

= Table.TransformColumnTypes(#"Added Conditional Column",{{"Date", type date}})

Queries [6]:
- AssetTypes
- Brokers
- Date
- InvestmentTransactions
- MarketPrices
- Assets

	TransactionID	Date	AssetID	Type	Quantity	PricePerUnit	TotalValue
	Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid
	Error 0%	Error 0%	Error 0%	Error 0%	Error 0%	Error 0%	Error
	Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty
1	1	5/18/2025	3	buy	43	1003.04	
2	3	5/22/2025	4	buy	46	692.26	
3	5	5/18/2025	4	buy	22	139.97	
4	6	5/21/2025	4	buy	1	234.89	
5	7	5/28/2025	1	buy	5	1820.3	
6	9	5/30/2025	8	buy	35	351.39	
7	10	5/26/2025	10	sell	16	1590.78	
8	11	5/14/2025	7	buy	7	284.17	
9	12	5/24/2025	6	sell	27	987.35	
10	13	5/11/2025	1	buy	4	864.98	
11	14	5/15/2025	2	buy	13	461.4	
12	15	5/8/2025	3	sell	12	629.24	
13	16	5/21/2025	2	sell	36	286.03	
14	17	5/28/2025	9	buy	6	1860.1	
15	18	5/7/2025	4	buy	27	1022.72	
16	21	5/7/2025	9	sell	10	460.81	
17	22	5/2/2025	1	buy	48	695.85	
18	23	5/17/2025	10	sell	33	1846.84	
19	24	5/6/2025	3	buy	33	252.21	
20	25	5/13/2025	2	buy	44	1737.46	
21	26	9/11/2025	3	sell	28	437.14	
22	27	11/27/2025	5	sell	67	1632.99	
23	28	9/1/2025	9	buy	64	883.97	
24	29	6/15/2025	9	sell	99	1575.18	
25							

Query Settings — PROPERTIES — Name: InvestmentTransactions

All Properties

APPLIED STEPS:
- Source
- Promoted Headers
- Changed Type
- Trimmed Text
- Changed Type1
- Filtered Rows
- Added Conditional Column
- Changed Type2

8 COLUMNS, 90 ROWS   Column profiling based on top 1000 rows

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Screenshot 1 — MarketPrices query

Formula bar: `= Table.RemoveColumns(#"Inserted Month Name",{"Month"})`

Queries [6]:
- AssetTypes
- Brokers
- Date
- InvestmentTransactions
- MarketPrices
- Assets

	Date	AssetID	MarketPrice	Month Name
	Valid 100%	Valid 100%	Valid 100%	Valid 100%
	Error 0%	Error 0%	Error 0%	Error 0%
	Empty 0%	Empty 0%	Empty 0%	Empty 0%
1	6/1/2025	10	255.77	June
2	6/4/2025	4	1372.48	June
3	6/5/2025	6	553.5	June
4	6/6/2025	7	348.67	June
5	6/7/2025	5	968.73	June
6	6/8/2025	2	117.7	June
7	6/10/2025	2	239.2	June
8	6/11/2025	4	1061.18	June
9	6/12/2025	3	1873.19	June
10	6/13/2025	2	1770.61	June
11	6/14/2025	6	641.48	June
12	6/15/2025	8	1684.12	June
13	6/16/2025	5	1262.19	June
14	6/17/2025	9	114.86	June
15	6/18/2025	9	668.82	June
16	6/19/2025	2	1883.97	June
17	6/20/2025	3	602.49	June
18	6/21/2025	2	1510.59	June
19	6/22/2025	3	617.46	June
20	6/23/2025	10	500.2	June
21	6/24/2025	6	486.83	June
22	6/25/2025	5	1060.28	June

Query Settings — PROPERTIES — Name: MarketPrices

All Properties

APPLIED STEPS:
- Source
- Promoted Headers
- Changed Type
- Filtered Rows
- Inserted Month
- Inserted Month Name
- Removed Columns

4 COLUMNS, 22 ROWS   Column profiling based on top 1000 rows   PREVIEW DOWNLOADED AT 11:47 AM

Screenshot 2 — Assets query

Formula bar: `= Table.TransformColumns(#"Trimmed Text",{{"AssetType", Text.Proper, type text}})`

Queries [6]:
- AssetTypes
- Brokers
- Date
- InvestmentTransactions
- MarketPrices
- Assets

	AssetID	AssetName	AssetType	Symbol	BrokerID
	Valid 100%	Valid 100%	Valid 100%	Valid 100%	Valid 100%
	Error 0%	Error 0%	Error 0%	Error 0%	Error 0%
	Empty 0%	Empty 0%	Empty 0%	Empty 0%	Empty 0%
1	1	TCS	Stock	TCS	1
2	2	INFY	Stock	INFY	1
3	3	RELIANCE	Stock	RELI	1
4	4	HDFC MF	Mutual Fund	HDFCMF	2
5	5	SBI MF	Mutual Fund	SBIMF	2
6	6	Bitcoin	Crypto	BTC	3
7	7	Ethereum	Crypto	ETH	3
8	8	LIC Bonds	Bond	LICBD	4
9	9	Gold ETF	Etf	GOLDETF	4
10	10	Axis MF	Mutual Fund	AXISMF	2

Query Settings — PROPERTIES — Name: Assets

All Properties

APPLIED STEPS:
- Source
- Promoted Headers
- Changed Type
- Trimmed Text
- Capitalized Each Word

5 COLUMNS, 10 ROWS   Column profiling based on top 1000 rows   PREVIEW DOWNLOADED AT 11:47 AM
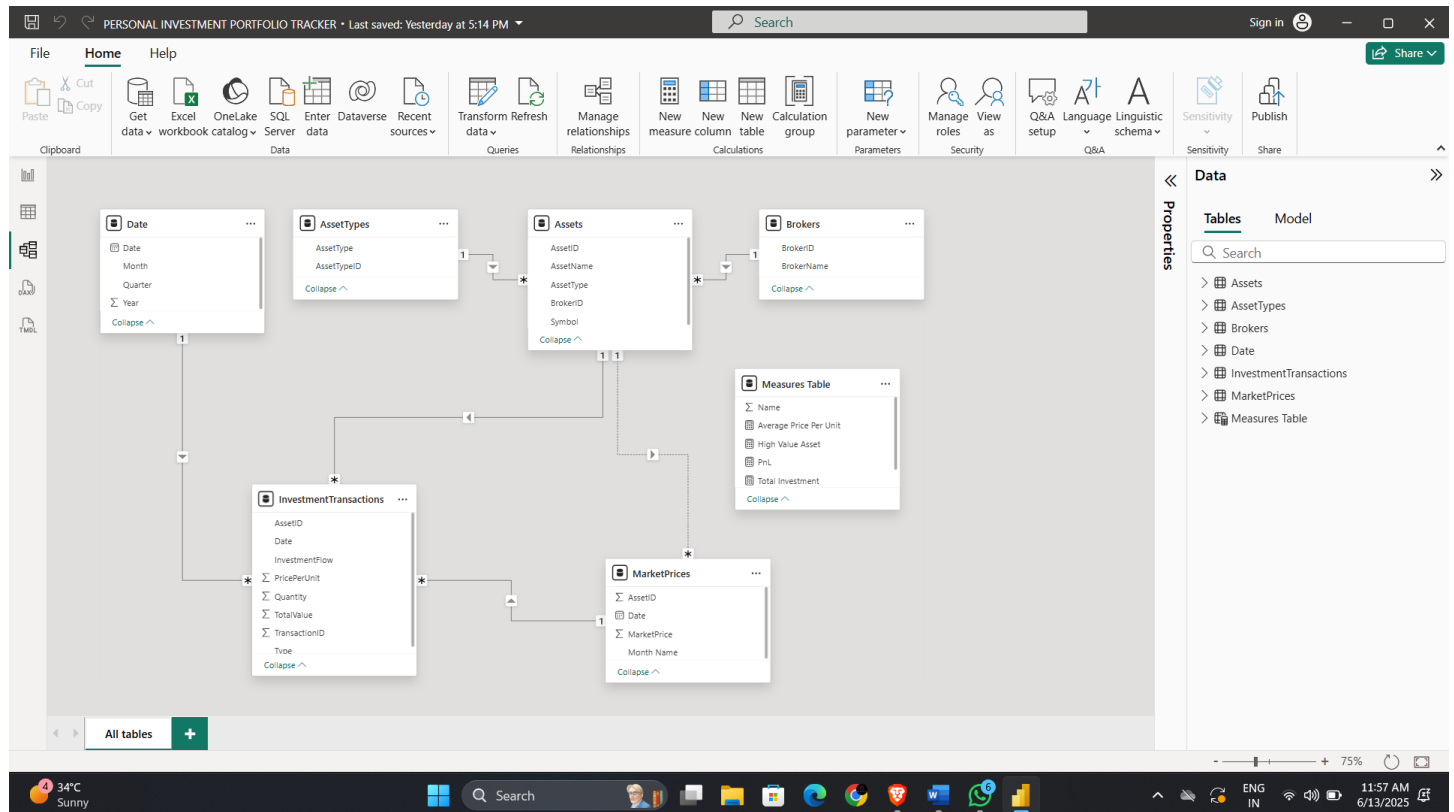
Step 3: Data Modeling

Created relationships between the tables (BrokerID, AssetID, etc.) in Model view.

Step 4: DAX Measures Created

Created basic measures like total investment, total quantity, and average price per unit.

```
1  Average Price Per Unit = AVERAGE(InvestmentTransactions[PricePerUnit])
```
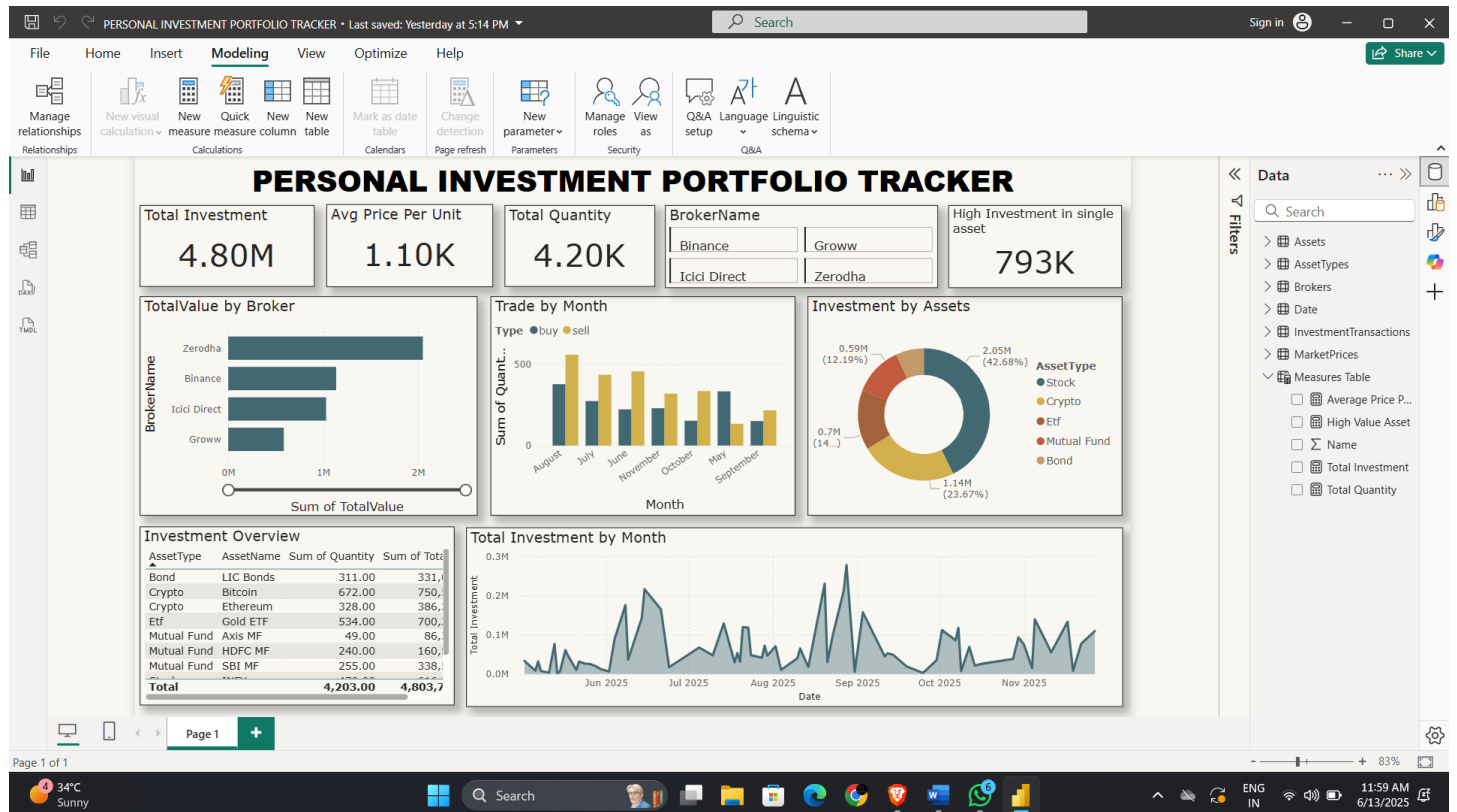
```
1  High Value Asset =
2  MAXX(
3      VALUES(Assets[AssetName]),
4      CALCULATE(SUM(InvestmentTransactions[TotalValue]))
5  )
6
```

```
1  Total Investment = SUM(InvestmentTransactions[TotalValue])
```

```
1  Total Quantity = SUM(InvestmentTransactions[Quantity])
```

Step 5: Visualizations

Used cards, bar charts, pie charts, line charts, and tables to represent data interactively.

5. Conclusion

This dashboard enables personal investors to easily monitor where their money is distributed, which broker holds the highest value, and how investments evolve over time.

6. Challenges Faced

- **Handled Placeholder Values ("--")**: Replaced non-null placeholders with blanks or filtered them out to ensure cleaner slicers and accurate visuals.
- **Resolved Data Type Issues**: Converted incorrectly imported text fields (like quantity and value) to proper numeric formats to enable calculations.
- **Removed Duplicates and Blanks**: Identified and removed duplicate and blank rows to prevent inflated totals and misleading analytics.