Streamlit App for Data Analysis

Upload your CSV file

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Select Columns to Display

CID × | TID × | Gender × | Age Group × | Purchase Date × | Product Category × | Discount Availed × | Discount Name × | Discount Amoun... × | Gross Amount × | Net Amount × | Purchase Method × | Location ×

Select Target Column

CID

Using preloaded dataset.

Streamlit App for Data Analysis

Dataset Preview

	CID	TID	Gender	Age Group	Purchase Date	Product Category	Discount Avail
0	943,146	5,876,328,741	Female	25-45	30/08/2023 20:27:08	Electronics	Yes
1	180,079	1,018,503,182	Male	25-45	23/02/2024 09:33:46	Electronics	Yes
2	337,580	3,814,082,218	Other	60 and above	06/03/2022 09:09:50	Clothing	Yes
3	180,333	1,395,204,173	Other	60 and above	04/11/2020 04:41:57	Sports & Fitness	No
4	447,553	8,009,390,577	Male	18-25	31/05/2022 17:00:32	Sports & Fitness	Yes

Data Cleaning

Missing values per column: CID 0 TID 0 Gender 0 Age Group 0 Purchase Date 0 Product Category 0 Discount Availed 0 Discount Name 27585 Discount Amount (INR) 0 Gross Amount 0 Net Amount 0 Purchase Method 0 Location 0 dtype: int64

Filtered Dataset

	CID	TID	Gender	Age Group	Purchase Date	Product Category	Discount Ava
2	337,580	3,814,082,218	Other	60 and above	06/03/2022 09:09:50	Clothing	Yes
3	180,333	1,395,204,173	Other	60 and above	04/11/2020 04:41:57	Sports & Fitness	No
4	447,553	8,009,390,577	Male	18-25	31/05/2022 17:00:32	Sports & Fitness	Yes
5	200,614	3,994,452,858	Male	18-25	12/07/2021 15:10:27	Clothing	Yes

Deploy ⋮

Dataset uploaded successfully!

Streamlit App for Data Analysis

Dataset Preview

	gender	age	Investment_Avenues	Mutual_Funds	Equity_Market	Debentures	Government_Bond
0	Female	34	Yes	1	2	5	
1	Female	23	Yes	4	3	2	
2	Male	30	Yes	3	6	4	
3	Male	22	Yes	2	1	3	
4	Female	24	No	2	1	3	

Data Cleaning

Missing values per column: gender 0 age 0 Investment_Avenues 0 Mutual_Funds 0 Equity_Market 0 Debentures 0 Government_Bonds 0 Fixed_Deposits 0 PPF 0 Gold 0 Stock_Marktet 0 Factor 0 Objective 0 Purpose 0 Duration 0 Invest_Monitor 0 Expect 0 Avenue 0 What are your savings objectives? 0 Reason_Equity 0 Reason_Mutual 0 Reason_Bonds 0 Reason_FD 0 Source 0 dtype: int64

Filtered Dataset

	gender	age	Investment_Avenues	Mutual_Funds	Equity_Market	Debentures	Government_Bond
2	Male	30	Yes	3	6	4	
3	Male	22	Yes	2	1	3	
4	Female	24	No	2	1	3	

Deploy ⋮

Filtered Dataset

	Equity_Market	Debentures	Government_Bonds	Fixed_Deposits	Objective	Duration
0	2	5	3	7	Capital Appreciation	1-3 years
1	3	2	1	5	Capital Appreciation	More than 5 ye
2	6	4	2	5	Capital Appreciation	3-5 years
3	1	3	7	6	Income	Less than 1 yea
4	1	3	6	4	Income	Less than 1 yea
5	5	4	6	3	Capital Appreciation	1-3 years
6	6	4	2	5	Capital Appreciation	3-5 years
7	3	7	4	6	Capital Appreciation	3-5 years
8	4	7	5	3	Growth	1-3 years
9	3	7	4	5	Capital Appreciation	3-5 years

Model Performance Metrics

	MSE	RMSE	R2 Score
Linear Regression	3.0527	1.7472	-11.5595
KNN	0.2933	0.5416	-0.2069
Decision Tree	0.5	0.7071	-1.0571
Random Forest	0.2757	0.5251	-0.1343
SVM	0.2945	0.5427	-0.2117
XGBoost	0.3788	0.6154	-0.5583

Insights:

Sidebar (left panel, top)

Upload your CSV file

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Browse files

Finance_data.csv
8.6KB ✕

Select Columns to Display

gender ✕ age ✕
Investment_Ave... ✕
Mutual_Funds ✕
Equity_Market ✕
Debentures ✕
Government_Bo... ✕
Fixed_Deposits ✕ PPF ✕
Gold ✕ Stock_Marktet ✕
Factor ✕ Objective ✕
Purpose ✕ Duration ✕
Invest_Monitor ✕
Expect ✕ Avenue ✕
What are your sa... ✕
Reason_Equity ✕

Sidebar (left panel, bottom)

Select Columns to Display

Investment_Ave... ✕
Mutual_Funds ✕
Equity_Market ✕
Debentures ✕
Government_Bo... ✕
Fixed_Deposits ✕
Objective ✕ Duration ✕
Expect ✕

Select Target Column
gender ▾

Select Visualization

Choose a plot type
◉ Bar Chart
◯ Scatter Plot
◯ Box Plot
◯ Heatmap

Select column for bar chart
Investment_Avenues ▾

Advanced Data Filtering
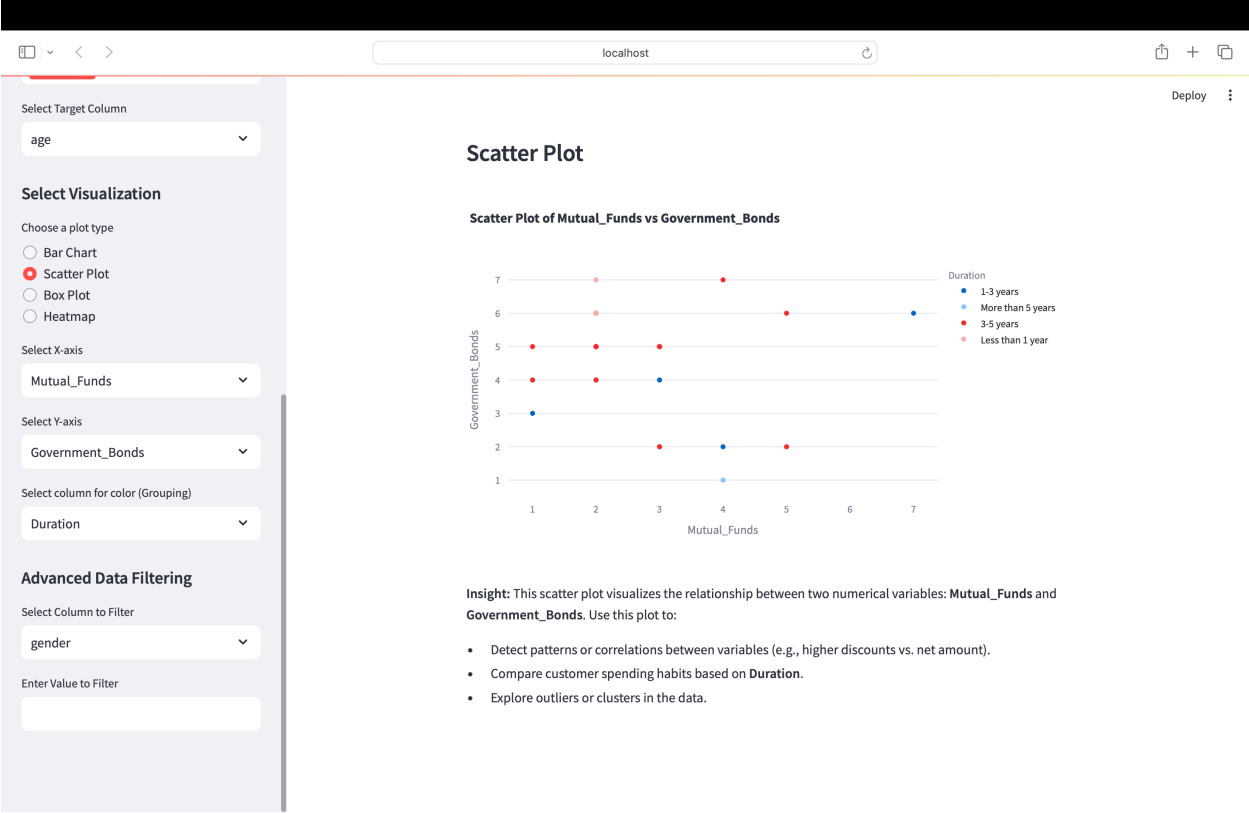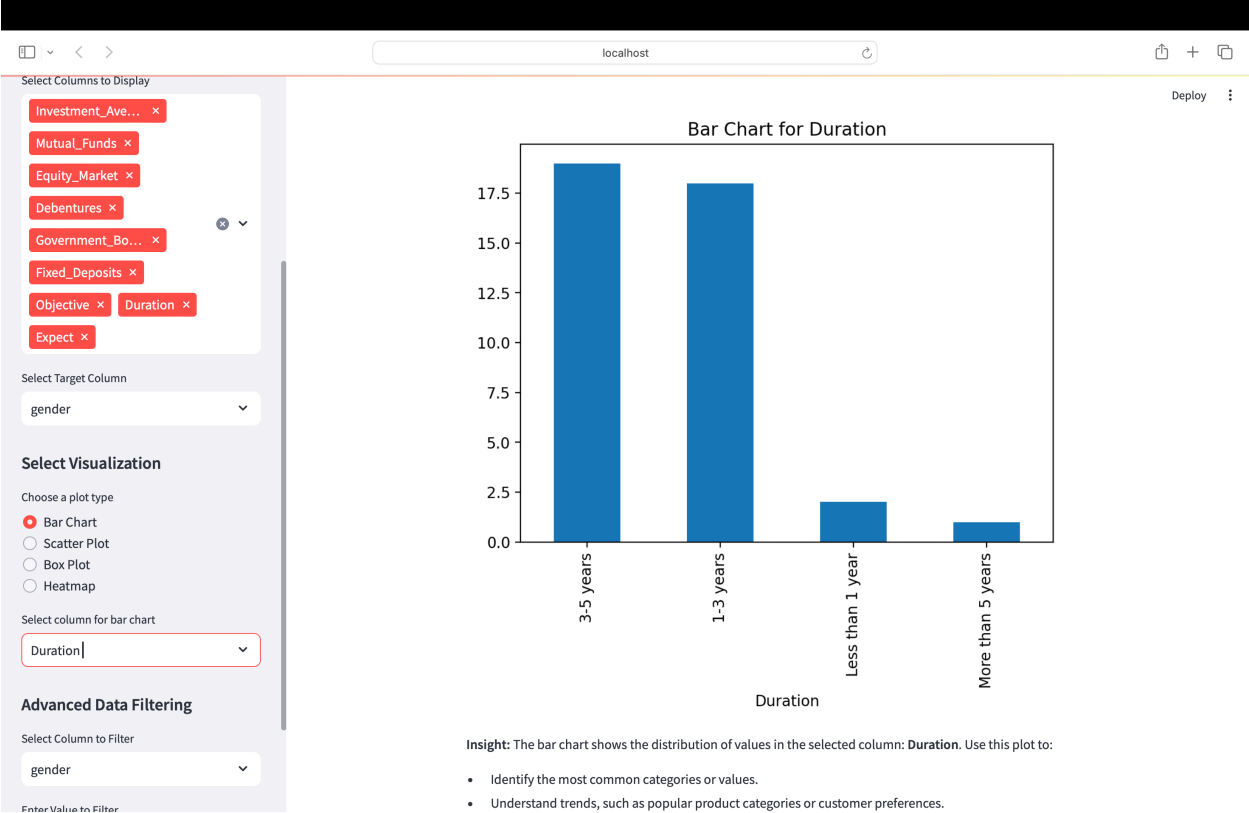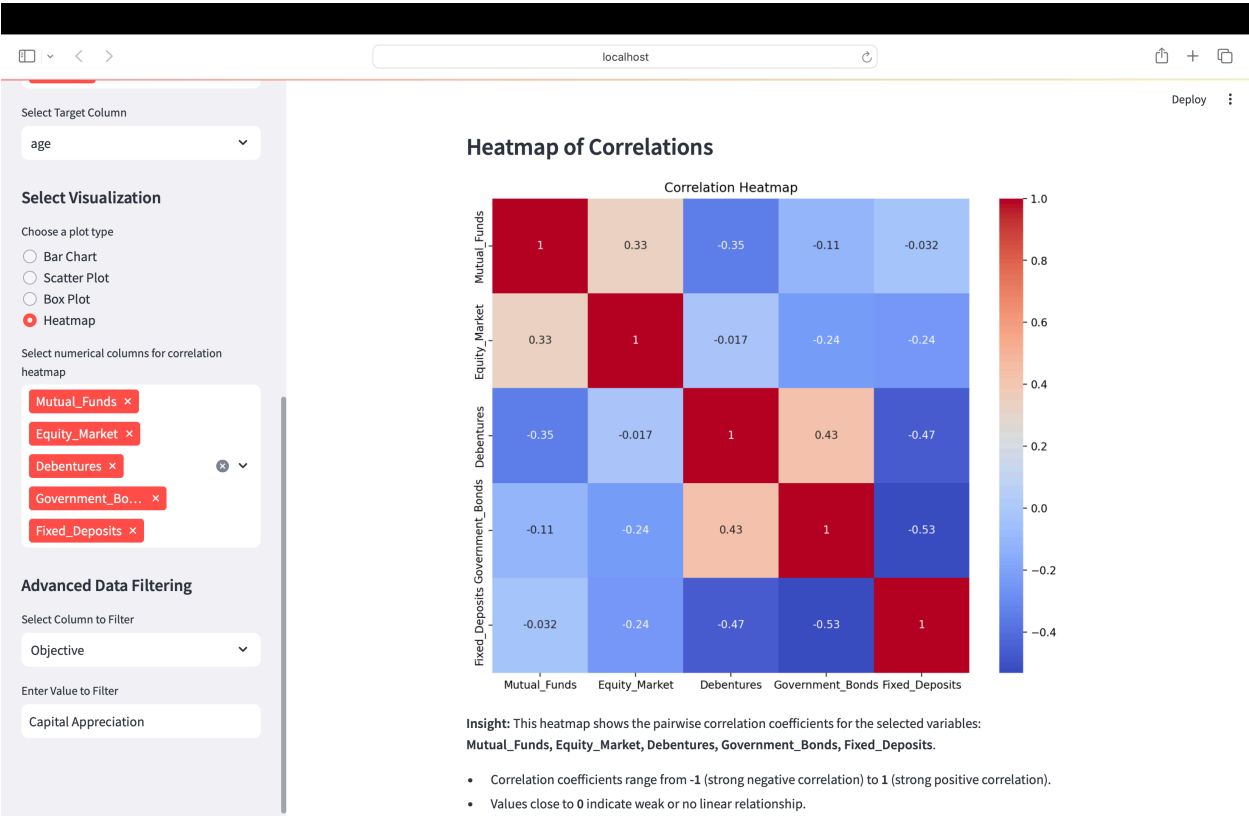
Select Column to Filter
gender ▾

Select Columns to Display

Investment_Ave... ×
Mutual_Funds ×
Equity_Market ×
Debentures ×
Government_Bo... ×
Fixed_Deposits ×
Objective × Duration ×
Expect ×

Select Target Column

gender ▾

Select Visualization

Choose a plot type

○ Bar Chart
○ Scatter Plot
○ Box Plot
○ Heatmap

Select column for bar chart

Duration| ▾

Advanced Data Filtering

Select Column to Filter

gender ▾

Enter Value to Filter

Bar Chart for Duration

Insight: The bar chart shows the distribution of values in the selected column: **Duration**. Use this plot to:

• Identify the most common categories or values.
• Understand trends, such as popular product categories or customer preferences.

Select Target Column

age ▾

Select Visualization

Choose a plot type

○ Bar Chart
○ Scatter Plot
○ Box Plot
○ Heatmap

Select X-axis

Mutual_Funds ▾

Select Y-axis

Government_Bonds ▾

Select column for color (Grouping)

Duration ▾

Advanced Data Filtering

Select Column to Filter

gender ▾

Enter Value to Filter

Scatter Plot

Scatter Plot of Mutual_Funds vs Government_Bonds

Insight: This scatter plot visualizes the relationship between two numerical variables: **Mutual_Funds** and **Government_Bonds**. Use this plot to:

• Detect patterns or correlations between variables (e.g., higher discounts vs. net amount).
• Compare customer spending habits based on **Duration**.
• Explore outliers or clusters in the data.

Deploy

Select Target Column

age

Select Visualization

Choose a plot type

- Bar Chart
- Scatter Plot
- Box Plot
- Heatmap

Select numerical columns for correlation heatmap

Mutual_Funds ×
Equity_Market ×
Debentures ×
Government_Bo... ×
Fixed_Deposits ×

Advanced Data Filtering

Select Column to Filter

Objective

Enter Value to Filter

Capital Appreciation

Heatmap of Correlations

Correlation Heatmap

Insight: This heatmap shows the pairwise correlation coefficients for the selected variables: **Mutual_Funds, Equity_Market, Debentures, Government_Bonds, Fixed_Deposits**.

- Correlation coefficients range from **-1** (strong negative correlation) to **1** (strong positive correlation).
- Values close to **0** indicate weak or no linear relationship.

Deploy

Select Target Column

age

Select Visualization

Choose a plot type

- Bar Chart
- Scatter Plot
- Box Plot
- Heatmap

Select numerical columns for correlation heatmap

Mutual_Funds ×
Equity_Market ×
Debentures ×
Government_Bo... ×
Fixed_Deposits ×

Advanced Data Filtering

Select Column to Filter

Objective

Enter Value to Filter

Capital Appreciation

- Correlation coefficients range from **-1** (strong negative correlation) to **1** (strong positive correlation).
- Values close to **0** indicate weak or no linear relationship.
- Use this heatmap to:
    - Identify variables that move together (positive correlation) or in opposite directions (negative correlation).
    - Pinpoint independent variables with low correlation for predictive modeling.
    - Highlight key relationships that could inform data strategies.

Filtered Data by Objective containing Capital Appreciation

	Debentures	Government_Bonds	Fixed_Deposits	Objective	Duration	Expect
0	5	3	7	Capital Appreciation	1-3 years	20%-30%
1	2	1	5	Capital Appreciation	More than 5 years	20%-30%
2	4	2	5	Capital Appreciation	3-5 years	20%-30%
5	4	6	3	Capital Appreciation	1-3 years	30%-40%
6	4	2	5	Capital Appreciation	3-5 years	20%-30%
7	7	4	6	Capital Appreciation	3-5 years	20%-30%
9	7	4	5	Capital Appreciation	3-5 years	30%-40%
11	7	6	3	Capital Appreciation	1-3 years	20%-30%
12	3	4	5	Capital Appreciation	1-3 years	20%-30%
13	7	4	5	Capital Appreciation	1-3 years	20%-30%