PERSONALITY
&
ASSET

DATA

Data

- Financial Personality data
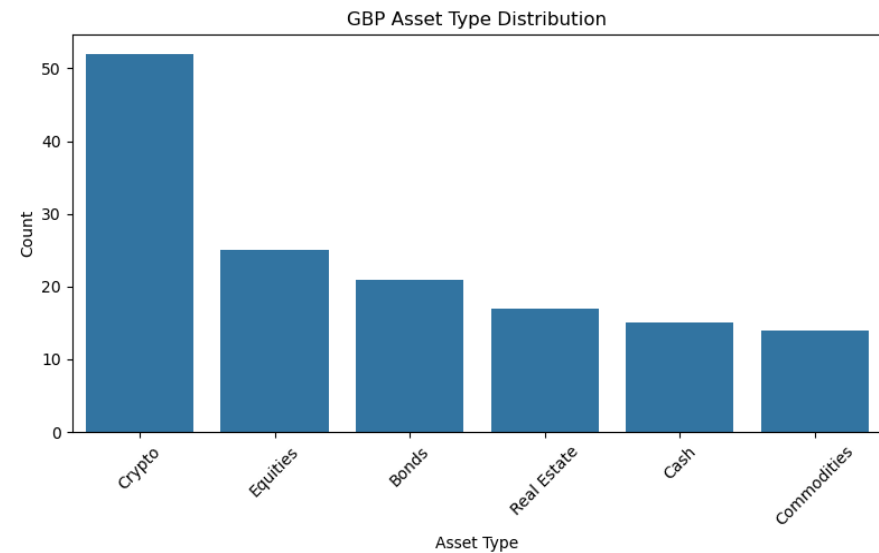
- Financial Assets data

Data cleansing

- Merged the two datasets using "_id" as the common key

- Since no exchange rate was provided, the analysis was limited to GBP-denominated assets only

GBP ASSET TYPE DISTRIBUTION

Crypto is the most common asset type held in GBP, followed by Equities and Bonds.

This suggests a strong preference for Crypto among individuals with GBP-denominated investments.
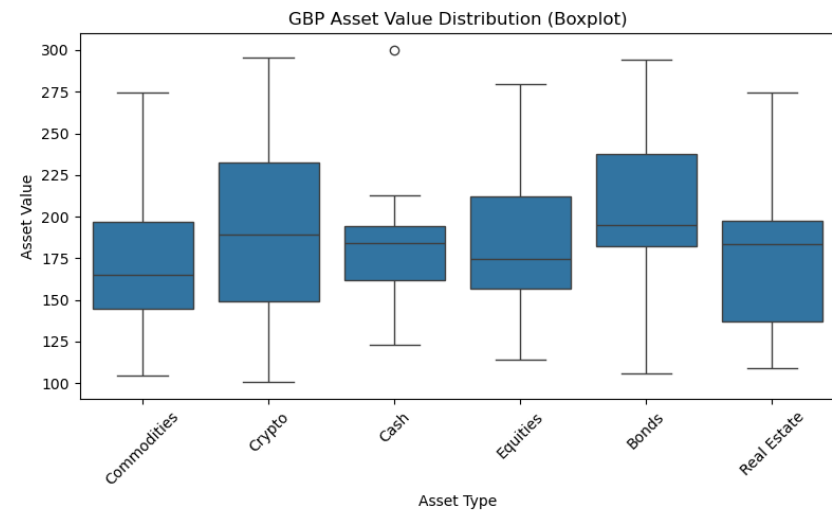

GBP Asset Type Distribution

GBP ASSET DISTRIBUTION (BOXPLOT)

Overall range of asset values is fairly consistent across asset types, typically between 100 and 300 GBP. Crypto and bonds exhibit the widest spread in asset values, suggesting greater variability in investment sizes.

Cash has a relatively narrow interquartile range (IQR), indicating that most individuals hold similar amounts in cash assets.
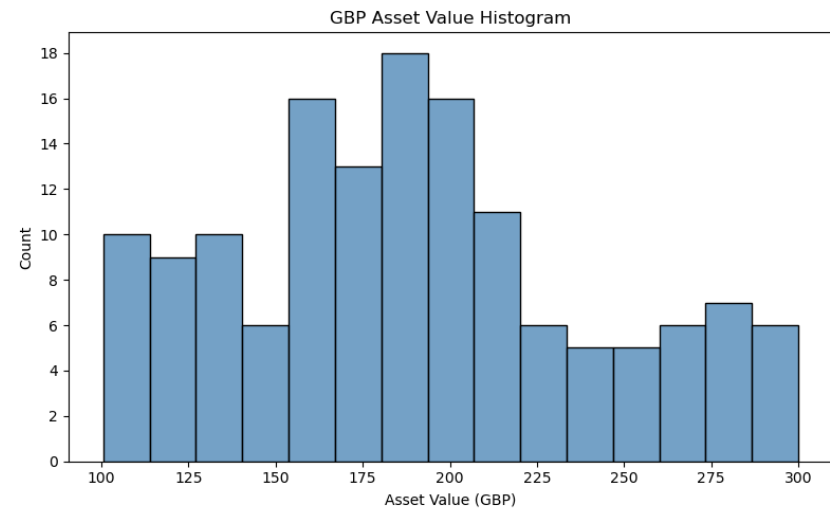
Based on the relatively small investment amounts and the uniform distribution pattern, it's highly likely that the "Real Estate" asset class in this dataset refers to REITs or real estate funds.

GBP Asset Value Distribution (Boxplot)

GBP ASSET VALUE HISTOGRAM

Most GBP asset values fall between 150 and 220.

The distribution is slightly left-skewed, indicating a majority of assets are in the lower-to-mid value range with fewer high-value holdings.

GBP Asset Value Histogram

LINEAR REGRESSION:
GBP ASSETS AND PERSONALITY TRAITS

None of the personality traits is significantly correlated with total GBP assets (p-values > 0.05).

The model explains very little variance ($R^2 \approx 0$), suggesting no linear relationship exists between personality and GBP asset total.

OLS Regression Results

Dep. Variable:	total_assets_gbp	R-squared:	0.019
Model:	OLS	Adj. R-squared:	-0.023
Method:	Least Squares	F-statistic:	0.4578
Date:	Sun, 15 Jun 2025	Prob (F-statistic):	0.807
Time:	11:29:40	Log-Likelihood:	-733.60
No. Observations:	122	AIC:	1479.
Df Residuals:	116	BIC:	1496.
Df Model:	5		
Covariance Type:	nonrobust		

	coef	std err	t	P>|t|	[0.025	0.975]
Intercept	266.9590	87.689	3.044	0.003	93.279	440.639
confidence	-99.2378	247.967	-0.400	0.690	-590.367	391.892
risk_tolerance	210.3348	314.377	0.669	0.505	-412.328	832.998
composure	-173.6814	170.717	-1.017	0.311	-511.807	164.444
impulsivity	-1.7923	32.060	-0.056	0.956	-65.291	61.707
impact_desire	-24.8273	31.800	-0.781	0.437	-87.812	38.158

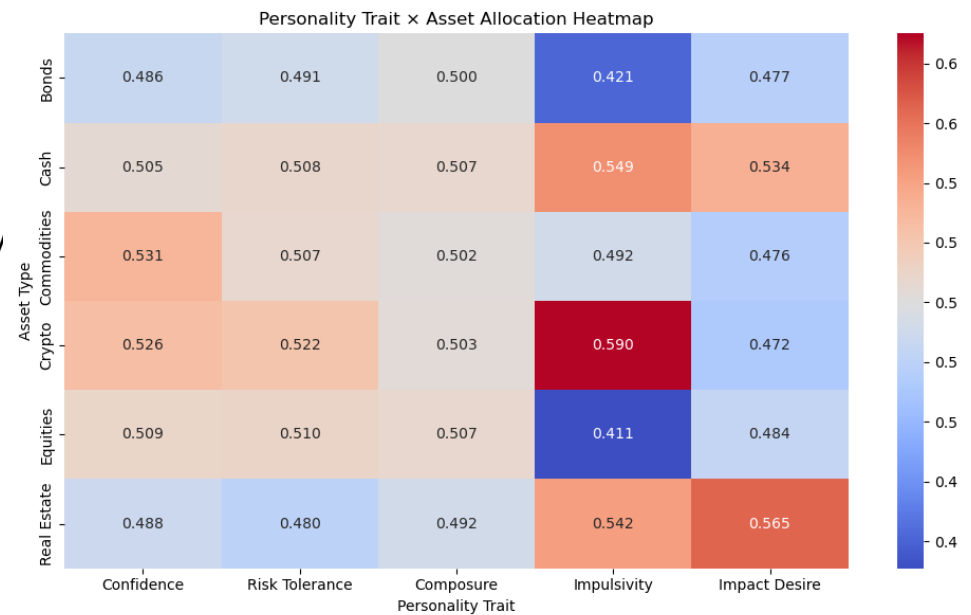|			
Omnibus:	24.541	Durbin-Watson:	1.962
Prob(Omnibus):	0.000	Jarque-Bera (JB):	31.632
Skew:	1.179	Prob(JB):	1.35e-07
Kurtosis:	3.812	Cond. No.	65.5

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

PERSONALITY TRAIT × ASSET ALLOCATION HEATMAP

Crypto holders tend to be more impulsive; Real Estate investors show higher impact desire.

Impulsivity shows the greatest variation across asset types, suggesting it may play a key role in distinguishing investment behavior. However, this trend is not statistically significant.

Personality Trait × Asset Allocation Heatmap

SUMMARY & FURTHER CONSIDERATIONS

Summary

- Asset type distribution showed Crypto as the most frequently held asset in GBP.

- No significant correlation was found between total GBP assets and personality traits.

- A linear regression model confirmed that personality scores do not significantly explain variation in asset values.

- Impulsivity varied slightly across asset types, with Crypto and Cash holders showing

Further Considerations

- Include non-GBP assets to gain a more comprehensive view

- Investigate additional factors (e.g., age, income, financial literacy) alongside personality and risk tolerance.

- Explore longitudinal data to assess whether personality has relationship with asset accumulation over time.