

INVESTMENT ASSIGNMENT SUBMISSION

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Problem Analysis

Spark Funds has two minor constraints for investments:

- It wants to invest between 5 to 15 million USD per round of investment.
- It wants to invest only in English-speaking countries because of the ease of communication with the companies it would invest in.

On high level following are stages in the workflow.

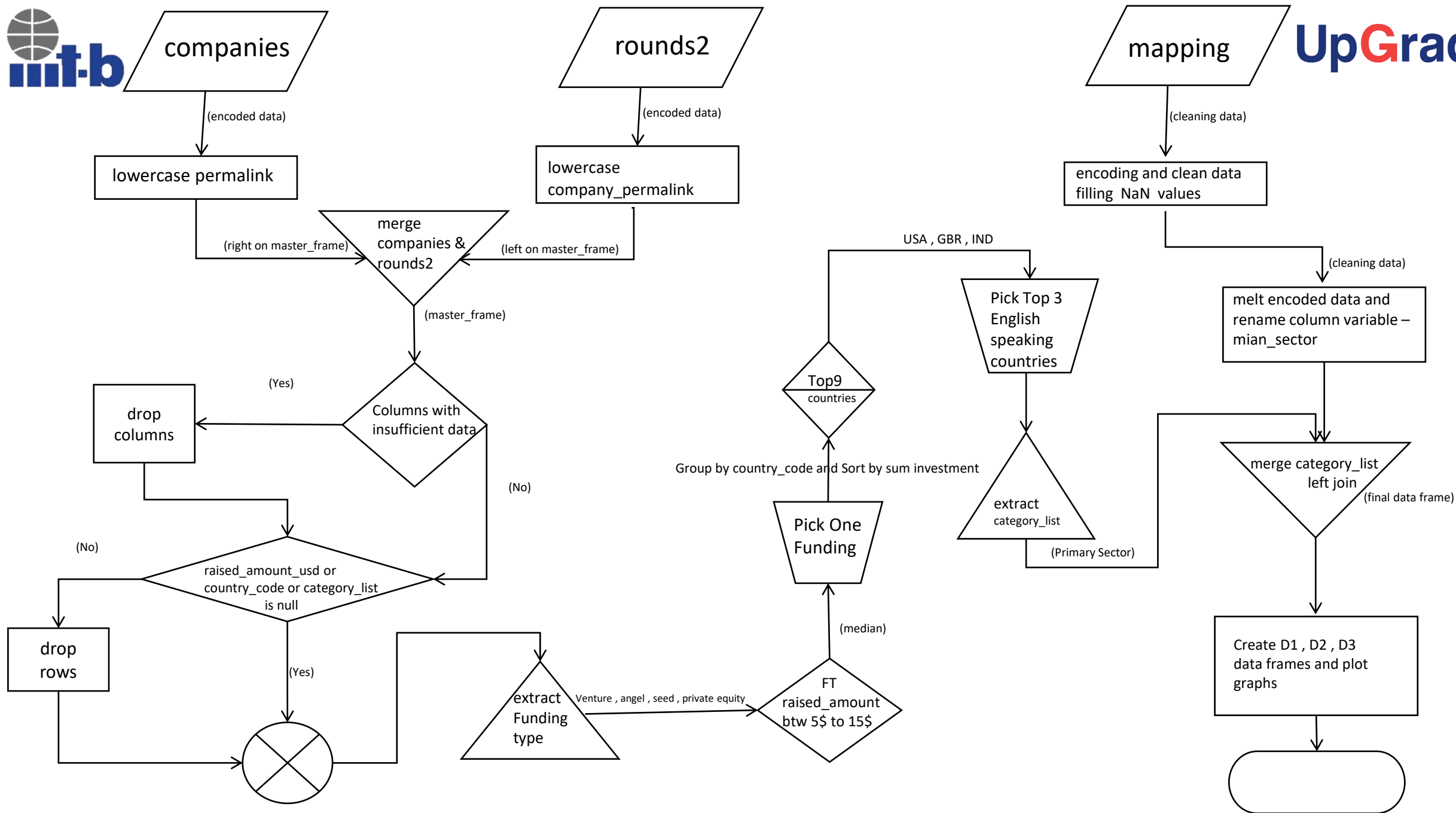
- Gather the data for the analysis.
- Clean the data for readability.
- Collate data into a model.
- Filter model based on investment type, country code and sector.
- Identify the best possible investment options
- Plot on the option for graphical representation.
- Account for missing mappings in the mapping file.

Tools:

- Jupyter Note Book.

Downloads:

- companies.csv
- rounds2.csv
- mapping.csv



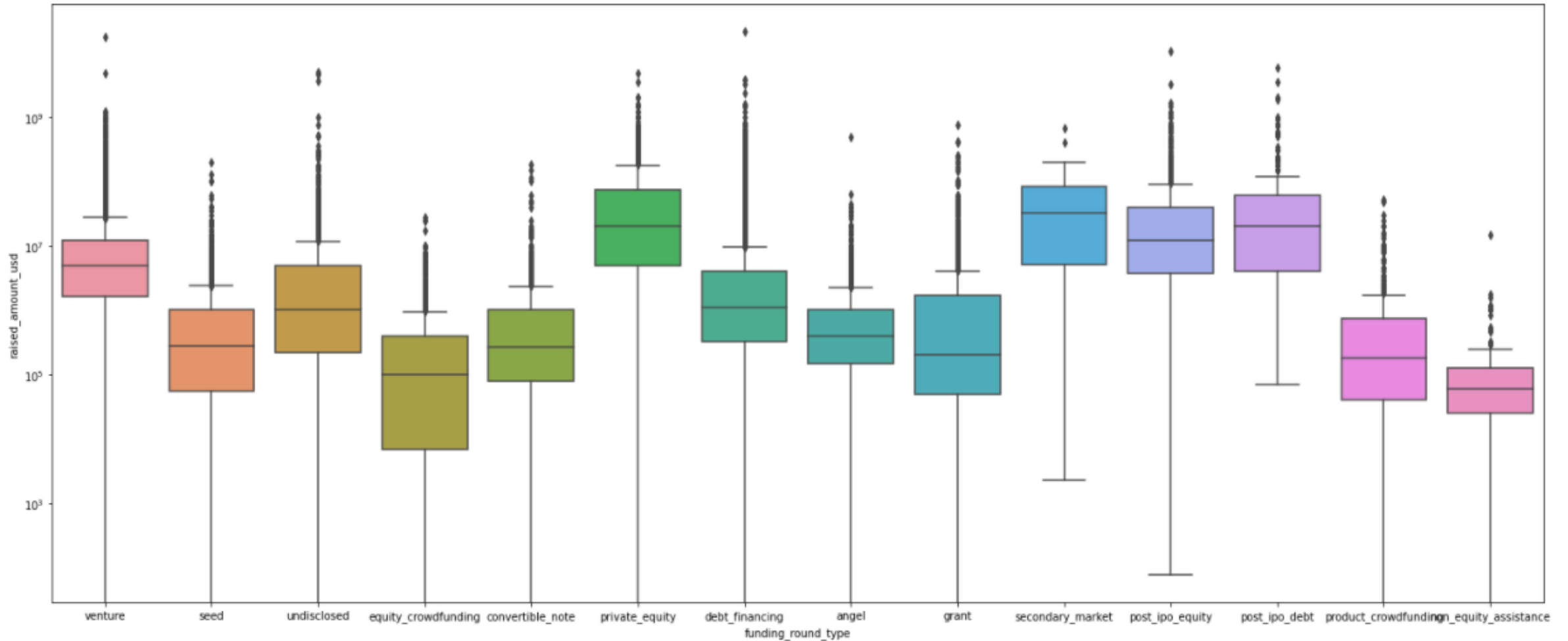
Data Model Analysis

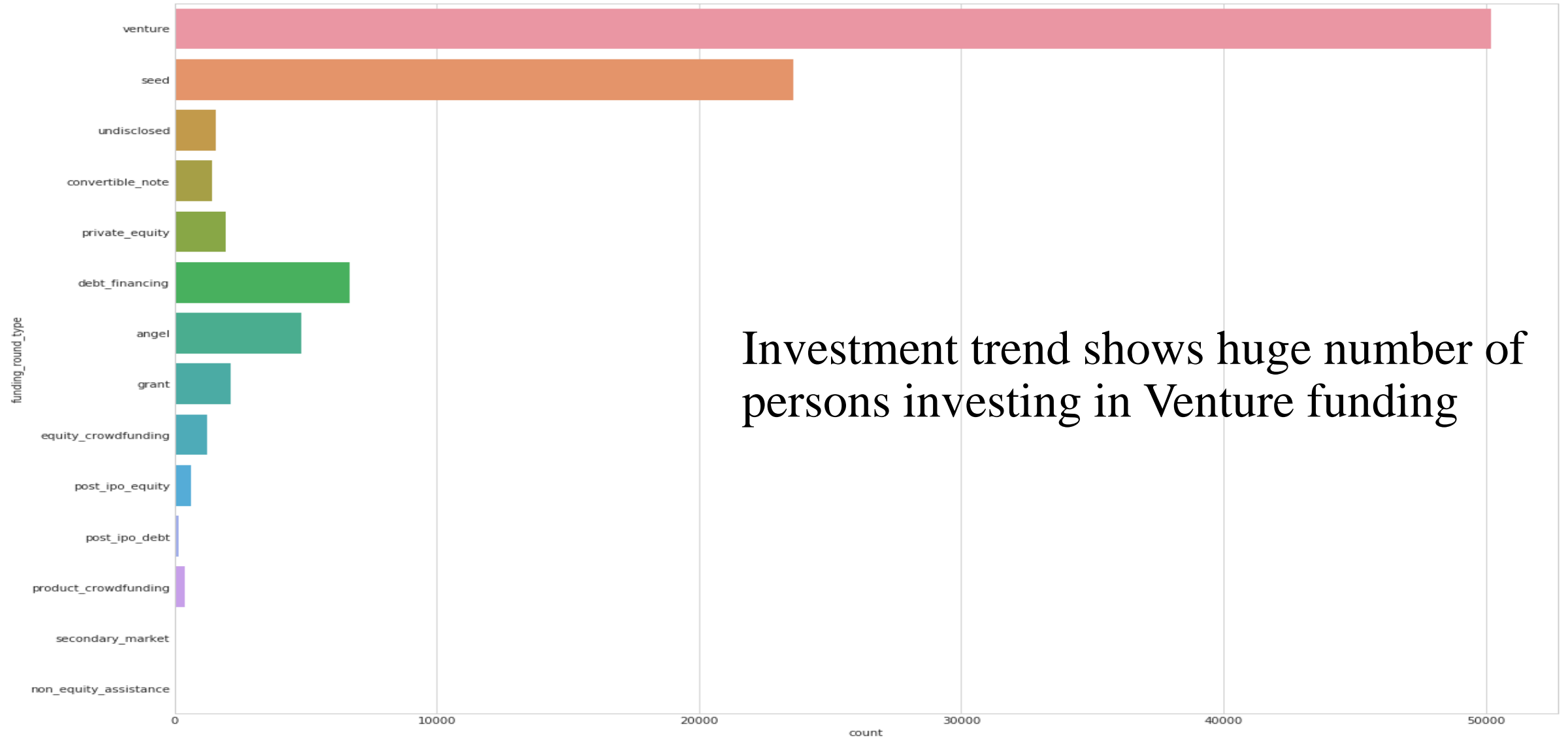
- Data Import – Import data from files.
- Data cleaning – Removing or correcting dirty data. Handling of NA values.
- Data Merging – Merge companies and investment round data to get fully readable dataset based on unique key.
- Data Mapping – Mapping dataset for identifying sectors and investment preferences and also fine the mapping by mapping the primary sectors to nearest logical main sector.
- Filtering – To identify preferred investment options for Funds to invest.

Model Objectives:

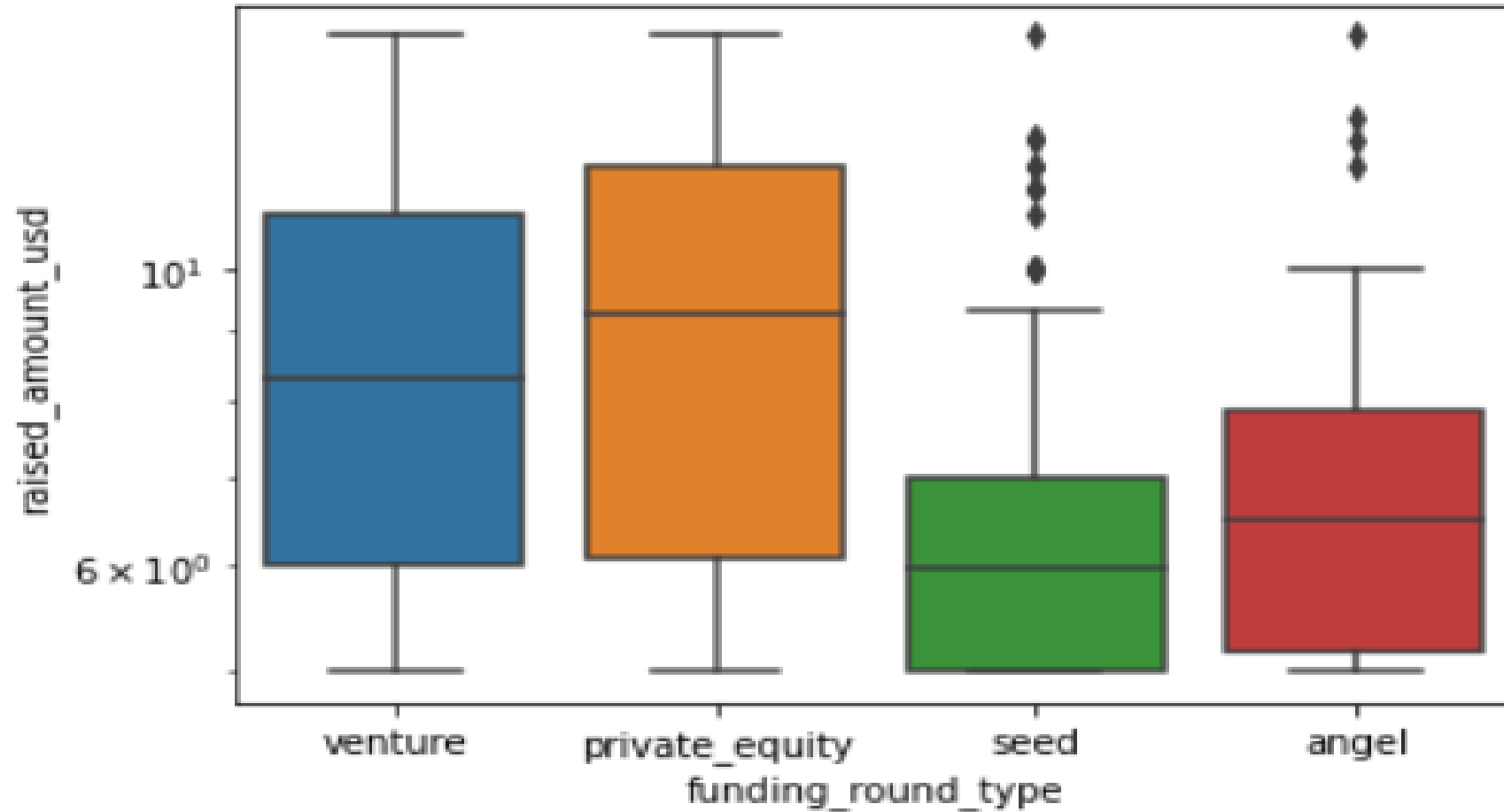
- Investment type analysis : Ability to identify best suited categories for the investment.
- Country Analysis: List out countries having most investment in the past.
- Sector Analysis: Understanding the investment distribution among sectors.

Boxplot of a variable across various funding categories

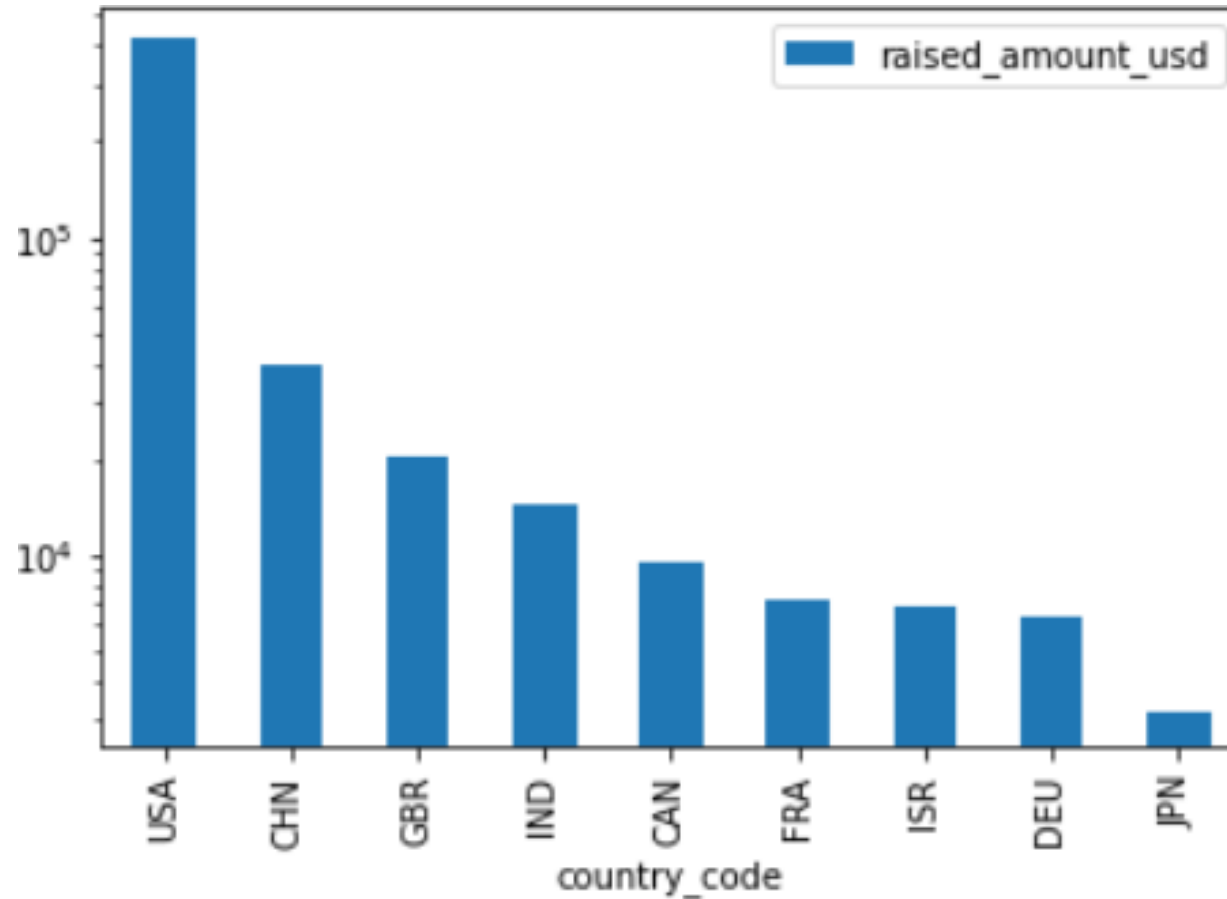




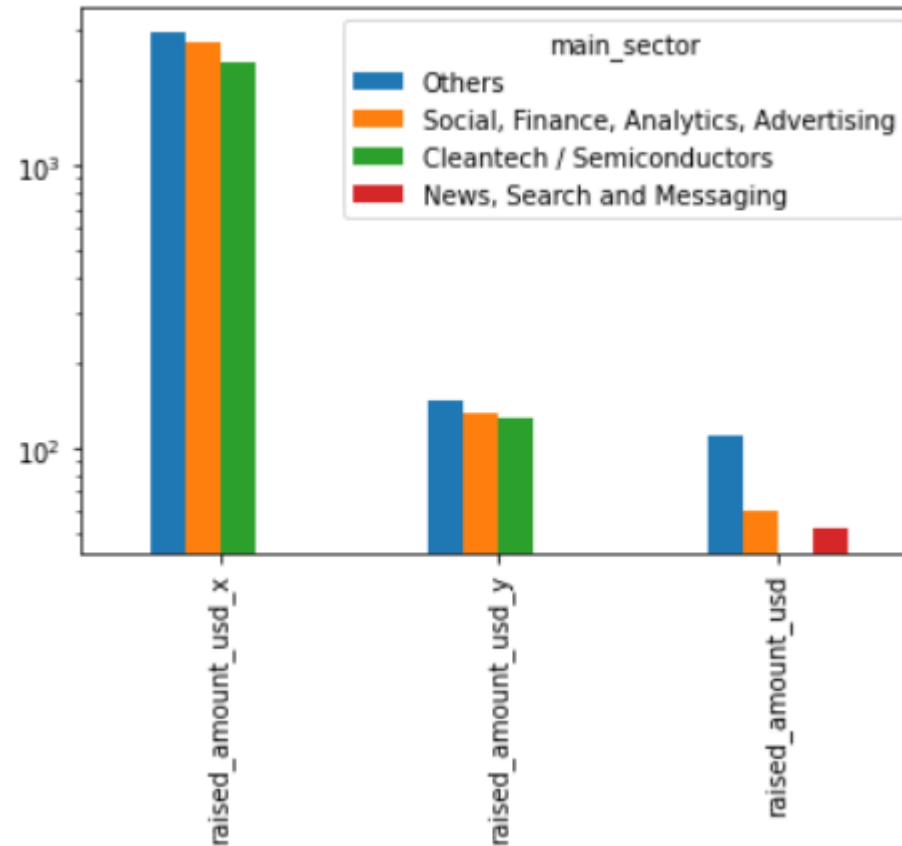
Boxplot of a raised USD amount across various 4 targeted categories



A plot showing the top 9 countries against the total amount of investments of funding type FT.



A plot showing the number of investments in the top 3 sectors of the top 3 countries on one chart



Result Analysis

- Identify unique companies and handle NA values for raised_amount_usd.
- List average funding for each of investment types.
- Country-wise funding in sectors for any chosen investment type. List top9 countries for investment type chosen.
- List top 3 English speaking courtiers for identifying investment-friendly options.
- Sector-wise investment in each country. Total number of investments and Total amount of investment in USD.
- Top ,second and third sectors based on count of investments.
- Top ,second and third sectors based on amount sum of investments.
- Which companies received highest investment in top and second sectors.
- Plot Representation of the above.