INVESTMENT ASSIGNMENT

SUBMISSION

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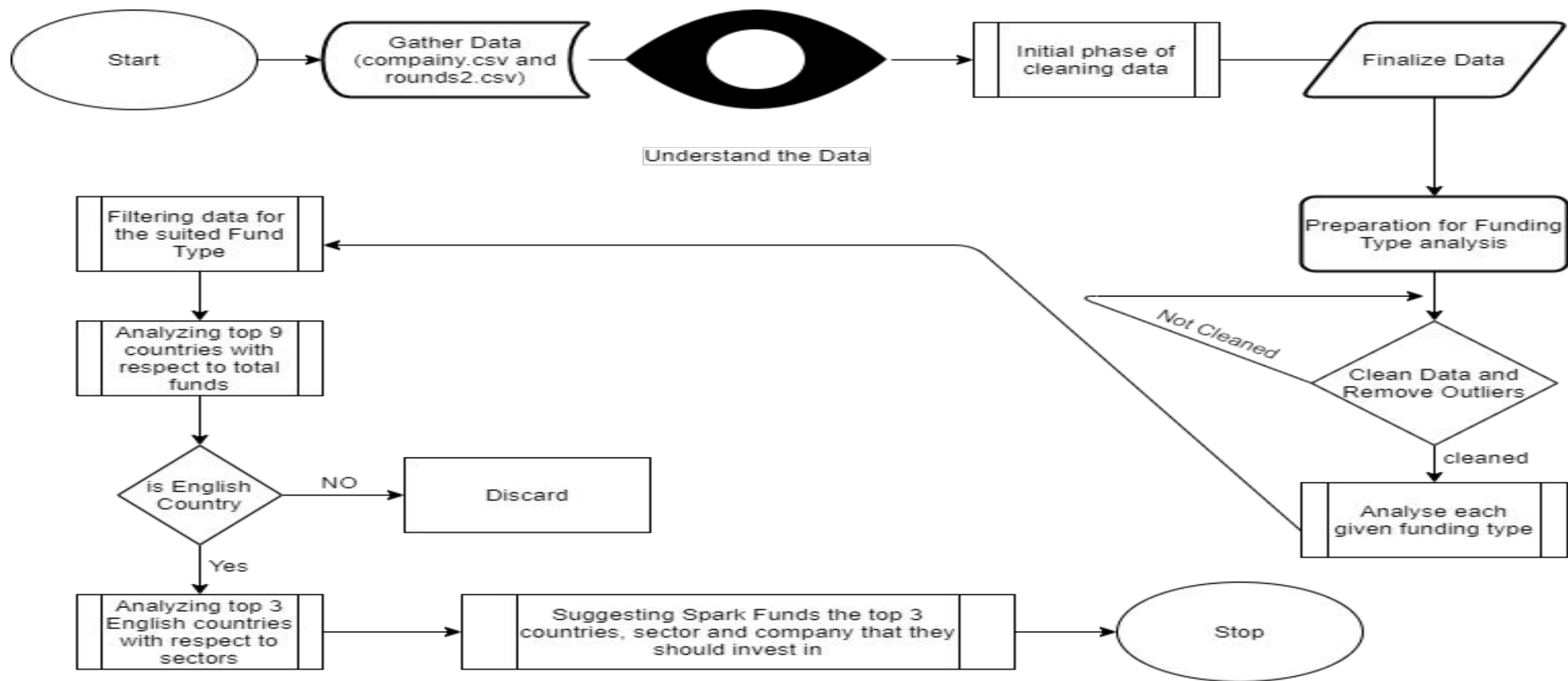# Spark Funds Investment Case Study

Spark Funds wants to make investments in a few companies.
They want to understand the global trends in investments so that she can take the investment decisions effectively.

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
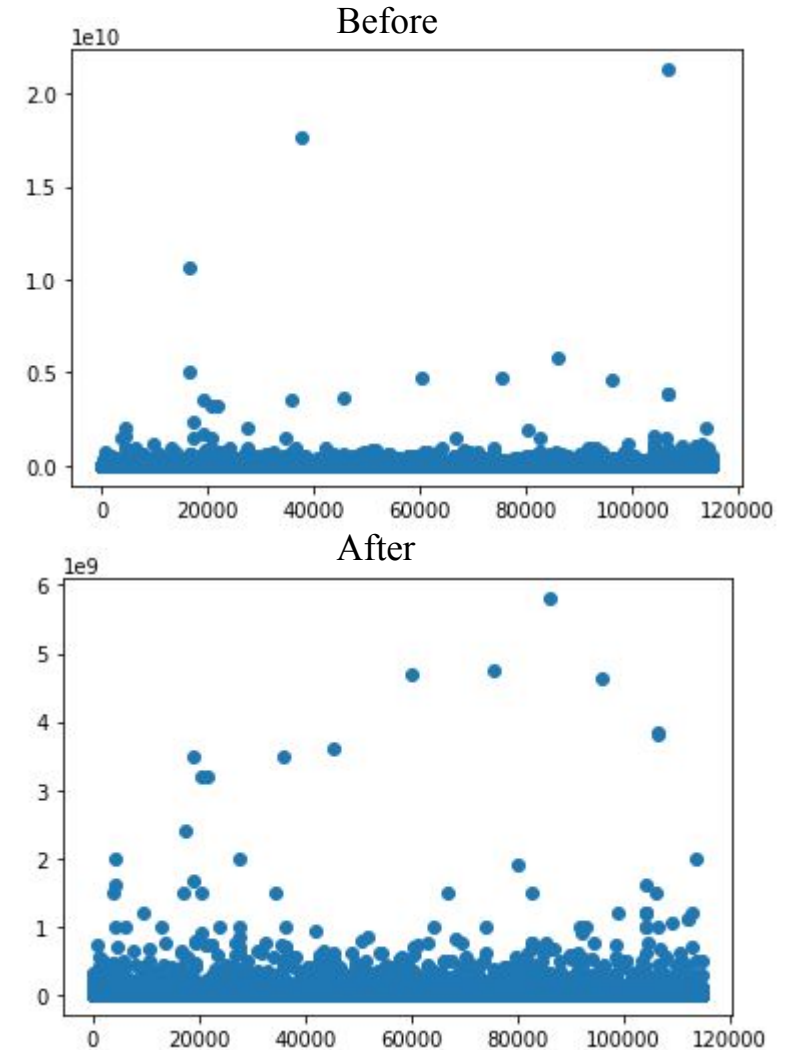
General Finance Analysis

Data gathering and analysis

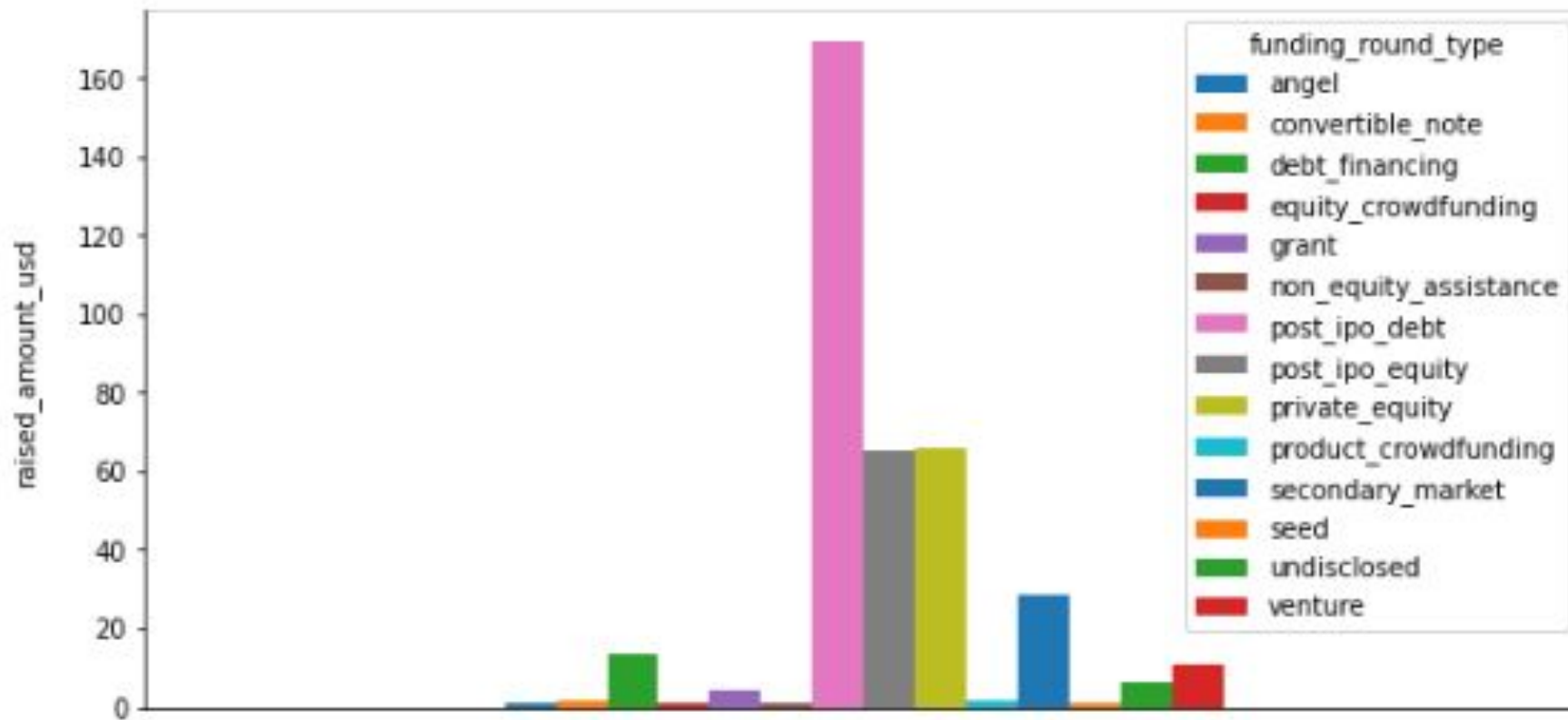**Source of Data for analysis is real investment data from crunchbase.com.**

1. Company Data, A file with basic data of companies
2. Investment Rounds Data, companies past investment round details
3. Mapping File, category to main sector mapping
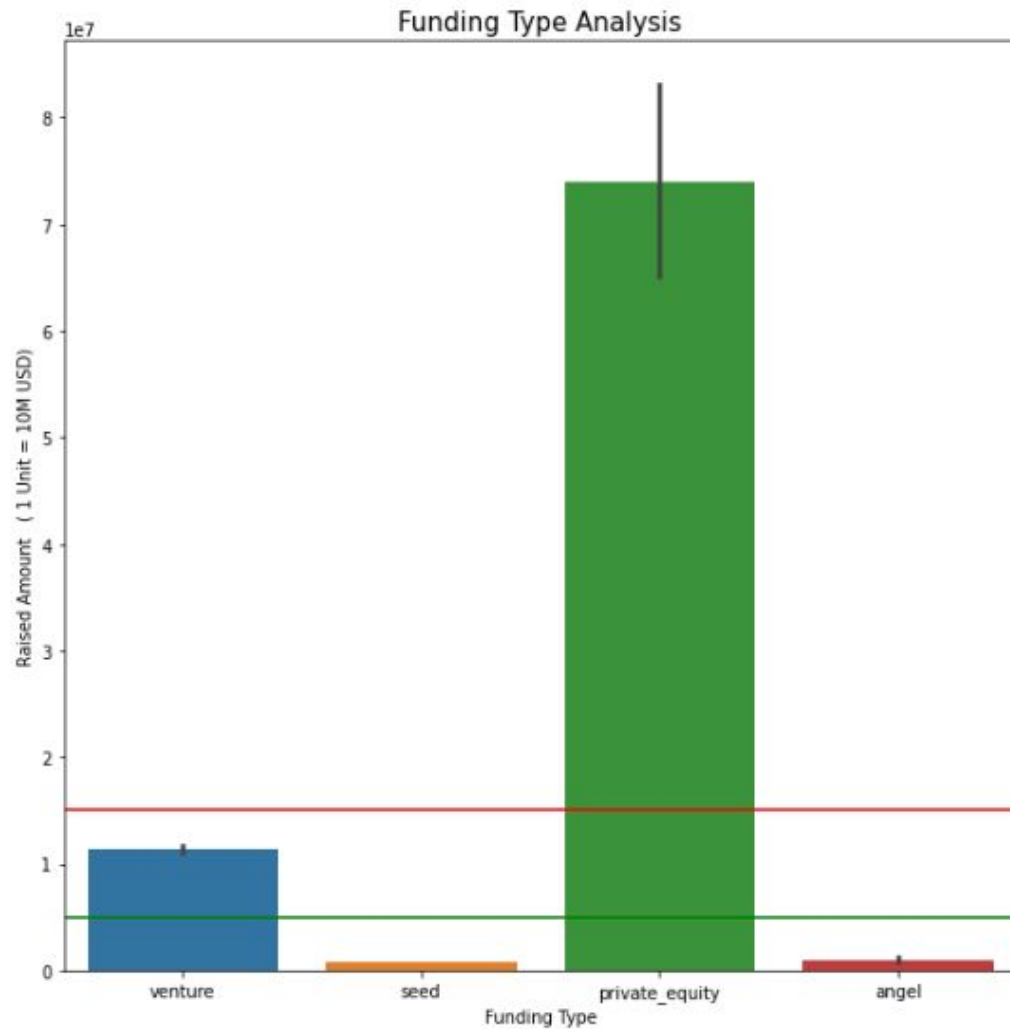4. English-speaking countries reference document.

Data cleaning performed:

• Removing columns having null values which are not required for the current analysis.
• Removing rows having null value in the required analysis fields.
• Removing outliers from the funds.
• Correcting incorrect or missing data wherever required to make data clean for analysis.

Before

After

Proceeding with initial analysis for Sectors globally

Fund Type Analysis

Funding Type Analysis

Investment (globally) in venture, seed, and private equity, and the average amount of investment in each funding type

- As per range of funding preferred by Spark Funds is 5 to 15 million USD it is clear that the fund type veture is what best suited as it lies in the range.
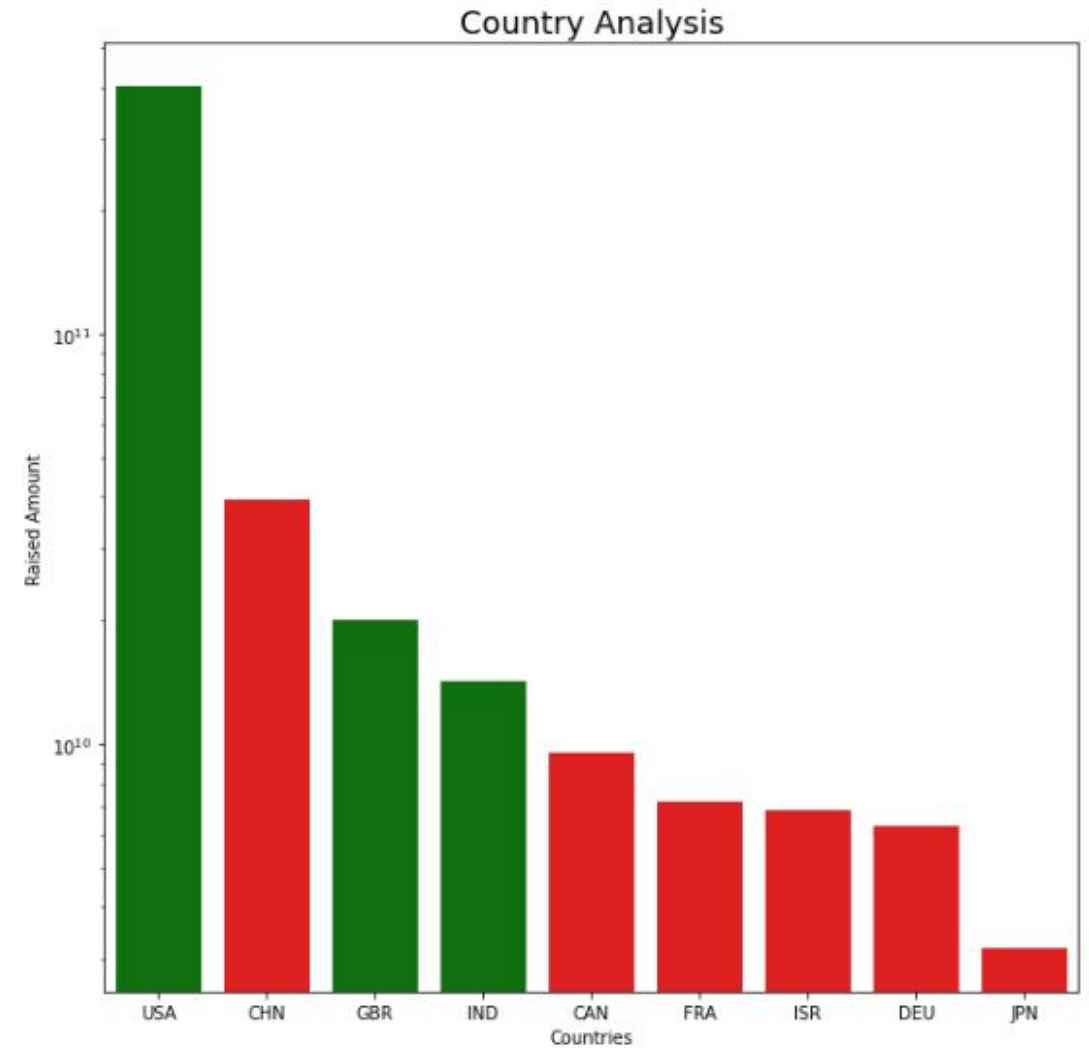
Countries Analysis

Top 9 countries.

- These are the top 9 countries with most investment globally across all the sectors

Top 3 English countries.

- As you can see only the english countries are colored green to identify them for further analysis

Data Cleaning and mapping of sectors

Data Ambiguity.

- The category list In table has "|" separated values that needs to be fixed.

- Business rule that the first string before the vertical bar will be considered the primary sector

From

```
'Application Platforms|Development Platforms',
'Application Platforms|Internet|Software|Startups',
'Application Platforms|Design',
'Application Platforms|Entertainment|Mobile',
'Application Platforms|Sensors|Travel',
```

To

```
, 'Application Platforms'
```

mapping Sectors.

- The mapping file could not be directly merged. It needed to be un-pivoted before doing so
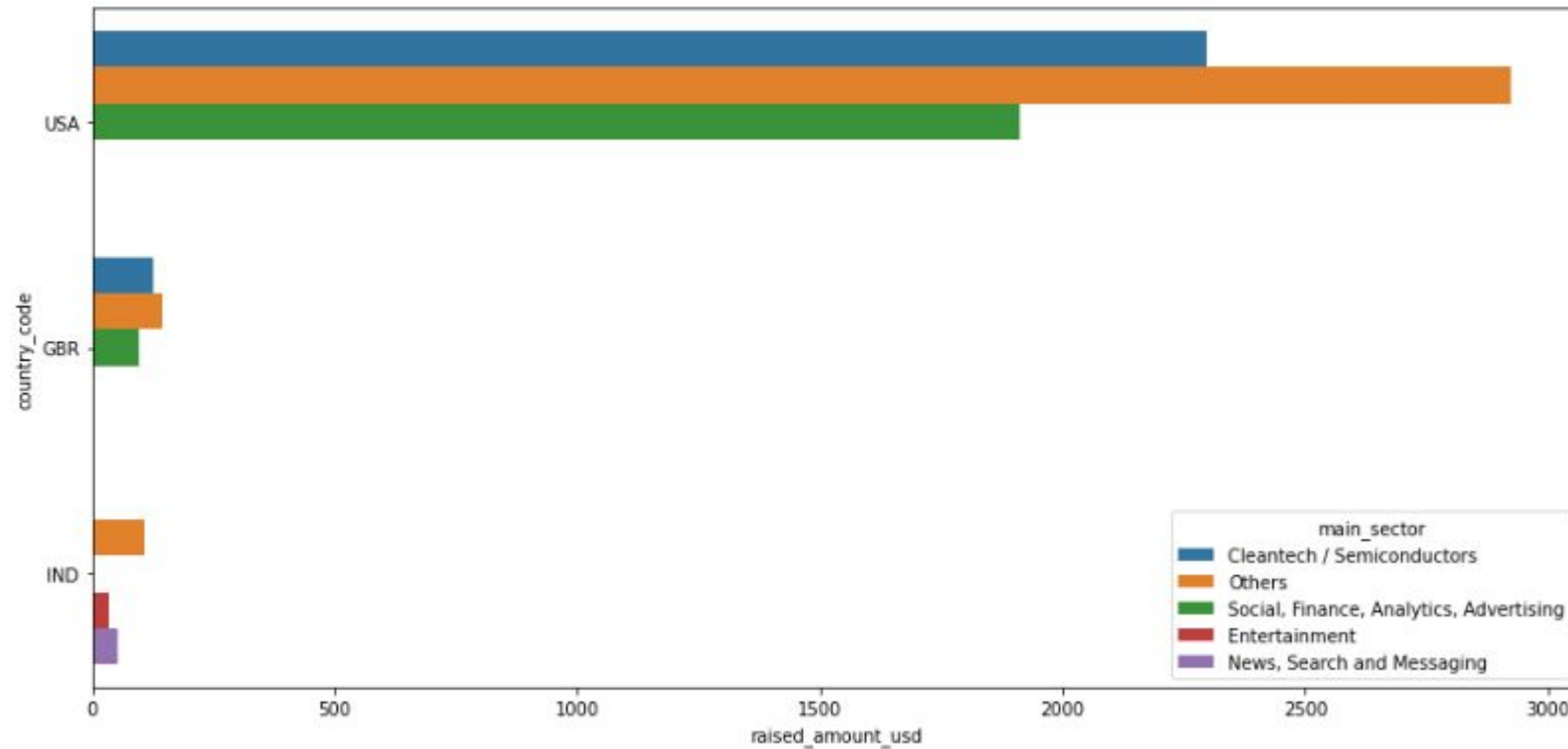
From

category_list	Automotive & Sports	Blanks	Cleantech / Semiconductors	Entertainment	Health	Manufacturing	News, Search and Messaging	Others	Social, Finance, Analytics, Advertising
3D	0	0	0	0	0	1	0	0	0
3D Printing	0	0	0	0	0	1	0	0	0
3D Technology	0	0	0	0	0	1	0	0	0 0
Accounting	0	0	0	0	0	0	0	0	1
Active Lifestyle	0	0	0	0	1	0	0	0	0

To

primary_sector	main_sector
Adventure Travel	Automotive & Sports
Aerospace	Automotive & Sports
Auto	Automotive & Sports
Automated Kiosk	Automotive & Sports
Automotive	Automotive & Sports

Number of Investment in top 3 Sectors among the top 3 countries.

Conclusions

Based on the analysis of the Investments data we can conclude the following

- Best investment type with an average size of investment in the 5-15 M USD range is **Venture Capital**.

- Top 3 English Speaking Countries receiving the highest investment amounts in Venture Capital funding types are
  - **USA**
  - **Great Britain**
  - **India**

- The most suitable sectors for funding in the above three countries are
  - **Others**
  - **Cleantech/Semiconductors**
  - **Social/Finance/Analytics/Advertising**
  - **News, Search and Messaging**
  - **Entertainment**