INVESTMENT ASSIGNMENT

SUBMISSION

Name:

Sathish Kumar G

Abstract:

We work for Spark Funds, an asset management company. Spark Funds wants to make investments in a few companies. The CEO of Spark Funds wants to understand the global trends in investments so that she can take the investment decisions effectively.

Business and Data Understanding

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.
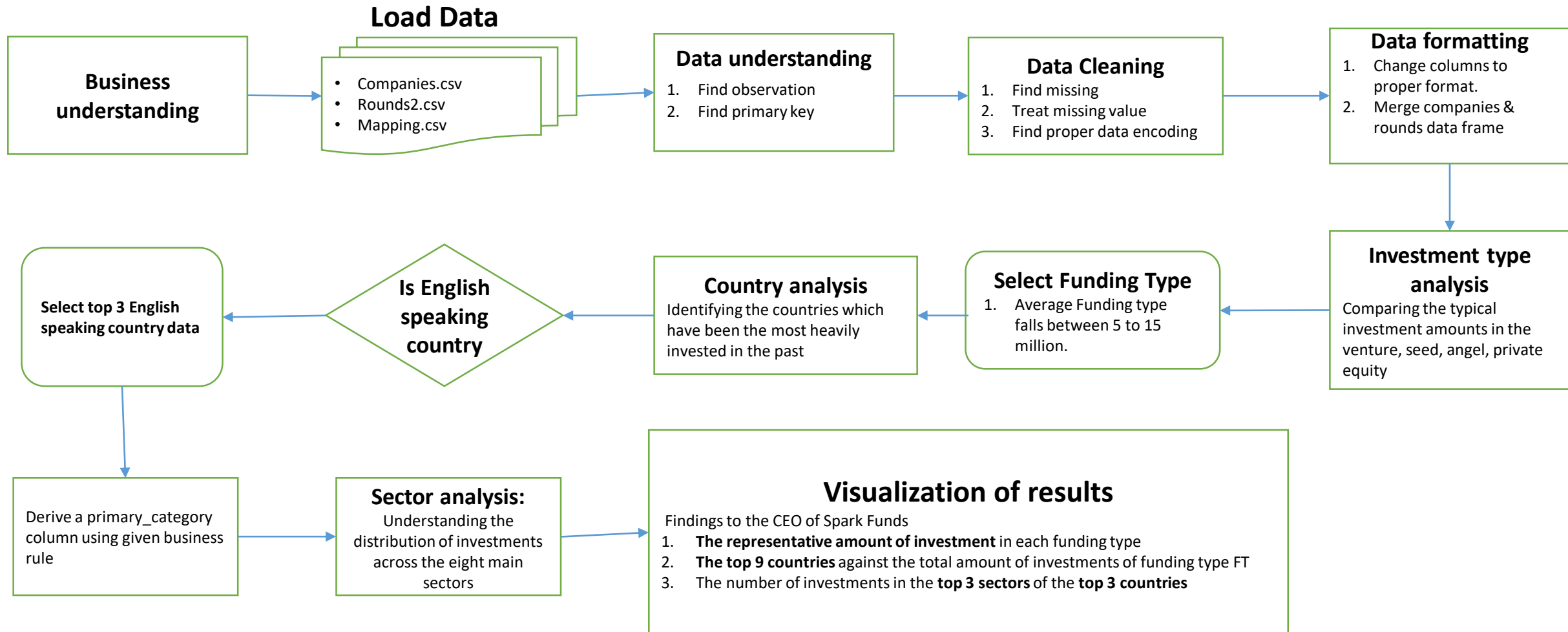
Business objective:

The objective is to identify the best sectors, countries, and a suitable investment type for making investments. The overall strategy is to invest where others are investing, implying that the 'best' sectors and countries are the ones 'where most investors are investing'.
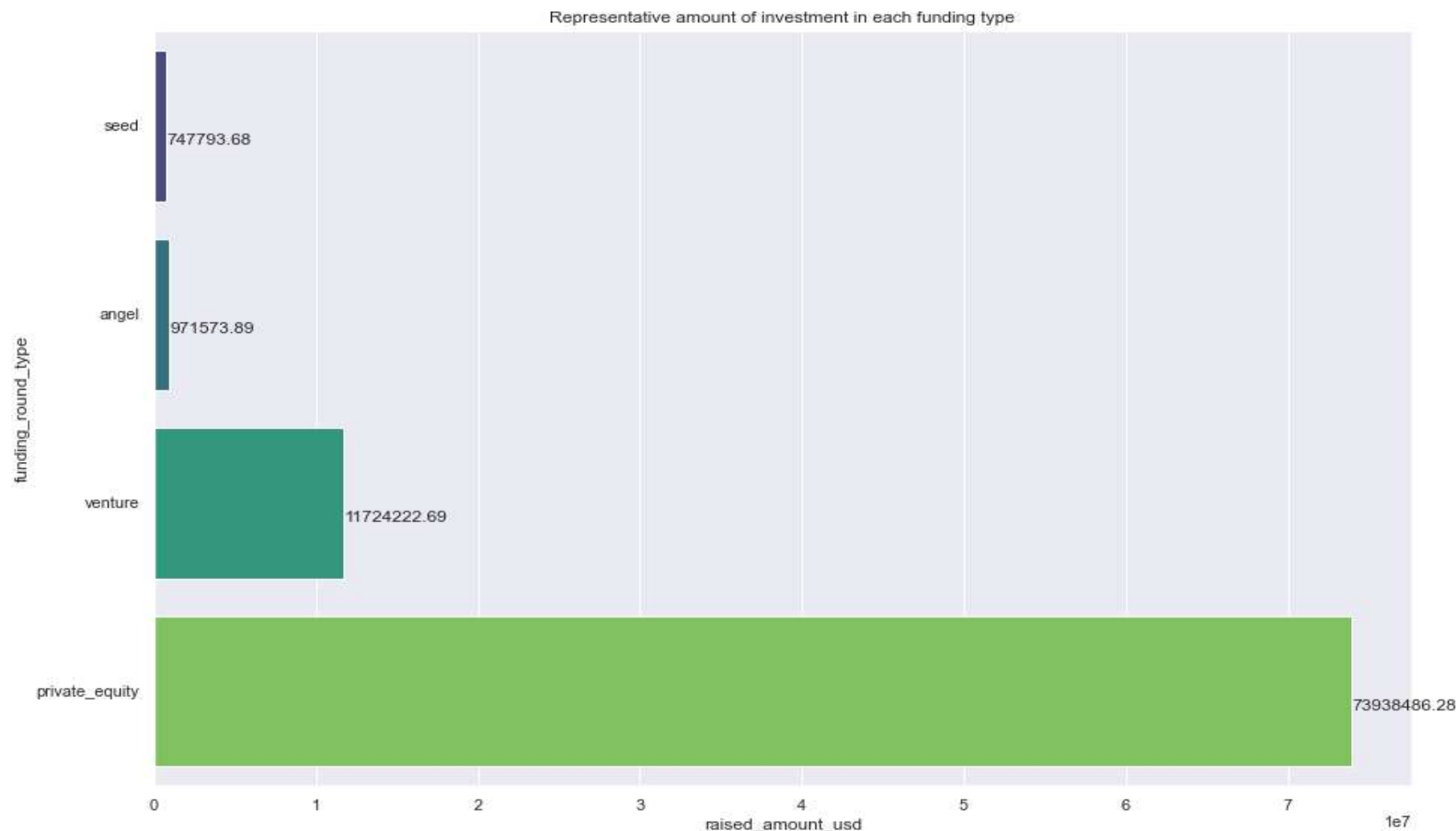
Goals of data analysis:

- ✓ **Investment type analysis:** Comparing the typical investment amounts in the venture, seed, angel, private equity etc. so that Spark Funds can choose the type that is best suited for their strategy.

- ✓ **Country analysis:** Identifying the countries which have been the most heavily invested in the past. These will be Spark Funds' favourites as well.

- ✓ **Sector analysis:** Understanding the distribution of investments across the eight main sectors.
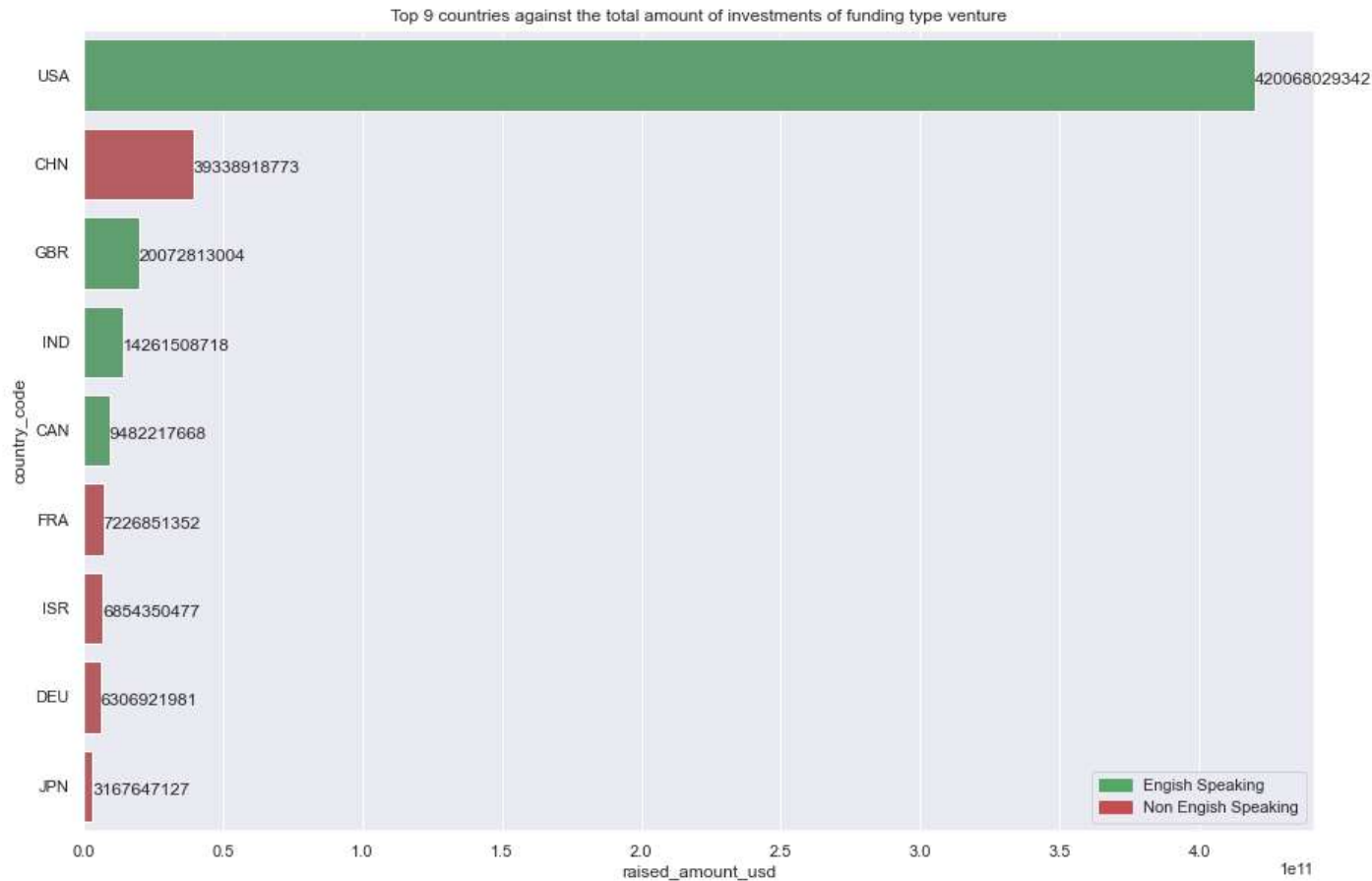
Problem solving methodology

Flow Chart

Load Data

Business understanding

- Companies.csv
- Rounds2.csv
- Mapping.csv

Data understanding
1. Find observation
2. Find primary key

Data Cleaning
1. Find missing
2. Treat missing value
3. Find proper data encoding

Data formatting
1. Change columns to proper format.
2. Merge companies & rounds data frame

Select top 3 English speaking country data

Is English speaking country

Country analysis
Identifying the countries which have been the most heavily invested in the past

Select Funding Type
1. Average Funding type falls between 5 to 15 million.

Investment type analysis
Comparing the typical investment amounts in the venture, seed, angel, private equity

Derive a primary_category column using given business rule

Sector analysis:
Understanding the distribution of investments across the eight main sectors

Visualization of results
Findings to the CEO of Spark Funds
1. **The representative amount of investment** in each funding type
2. **The top 9 countries** against the total amount of investments of funding type FT
3. The number of investments in the **top 3 sectors** of the **top 3 countries**

Investment Fund Type Analysis

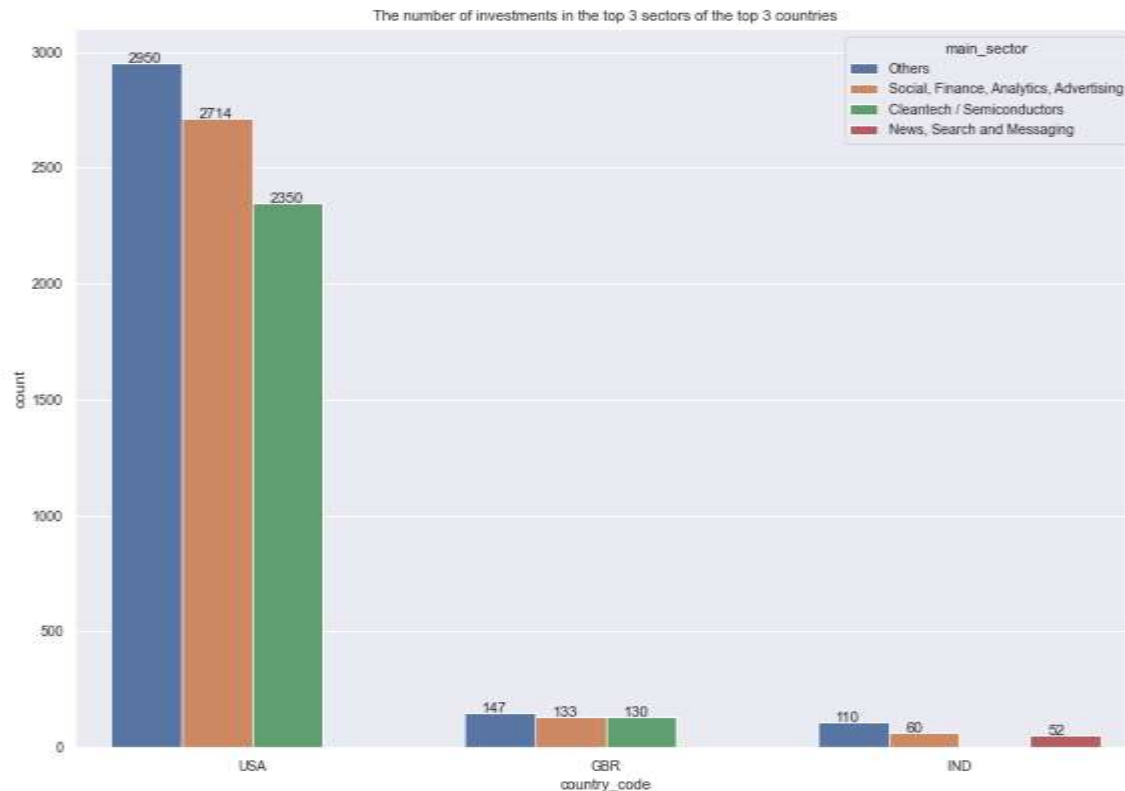Representative amount of investment in each funding type

- ➢ Comparing the typical investment amounts in the venture, seed, angel, private equity .

- ➢ Spark fund wants to invest between 5 to 15 million USD per round of investment .

- ➢ Average amount invested in private equity is beyond 15M USD. Seed and angel are below 5M USD.

- ➢ Venture is the only funding type that falls between 5M to 15M USD.

Country Analysis

Top 9 countries against the total amount of investments of funding type venture

- ➢ Identifying the countries which have been the most heavily invested in the past.

- ➢ Invest only in English-speaking countries because of the ease of communication with the companies it would invest in.

- ➢ USA, GBR and IND are top three English speaking countries which invested most in fund type venture.

Sector Analysis

The number of investments in the top 3 sectors of the top 3 countries

➤ Understanding the distribution of investments across the eight main sectors.

➤ From the graph we can understand that top 3 sectors invested most in top 3 countries.

country_code	main_sector	count
USA	Others	2950
USA	Social, Finance, Analytics, Advertising	2714
USA	Cleantech / Semiconductors	2350
GBR	Others	147
GBR	Social, Finance, Analytics, Advertising	133
GBR	Cleantech / Semiconductors	130
IND	Others	110
IND	Social, Finance, Analytics, Advertising	60
IND	News, Search and Messaging	52

Conclusions

Considering our analysis and business objective of spark of fund, below are the points concluded where spark fund could invest.

❖ **Venture** is the funding invest type

❖ **USA, GBR and IND** are top three English speaking countries which invested most in fund type venture.

❖ Spark can consider **others and Social ,Finance, Analytics & Advertising sectors in USA**.

❖ If they want to split and invest, they can consider **same sector in GBR and IND**.