

INVESTMENT ASSIGNMENT

SUBMISSION

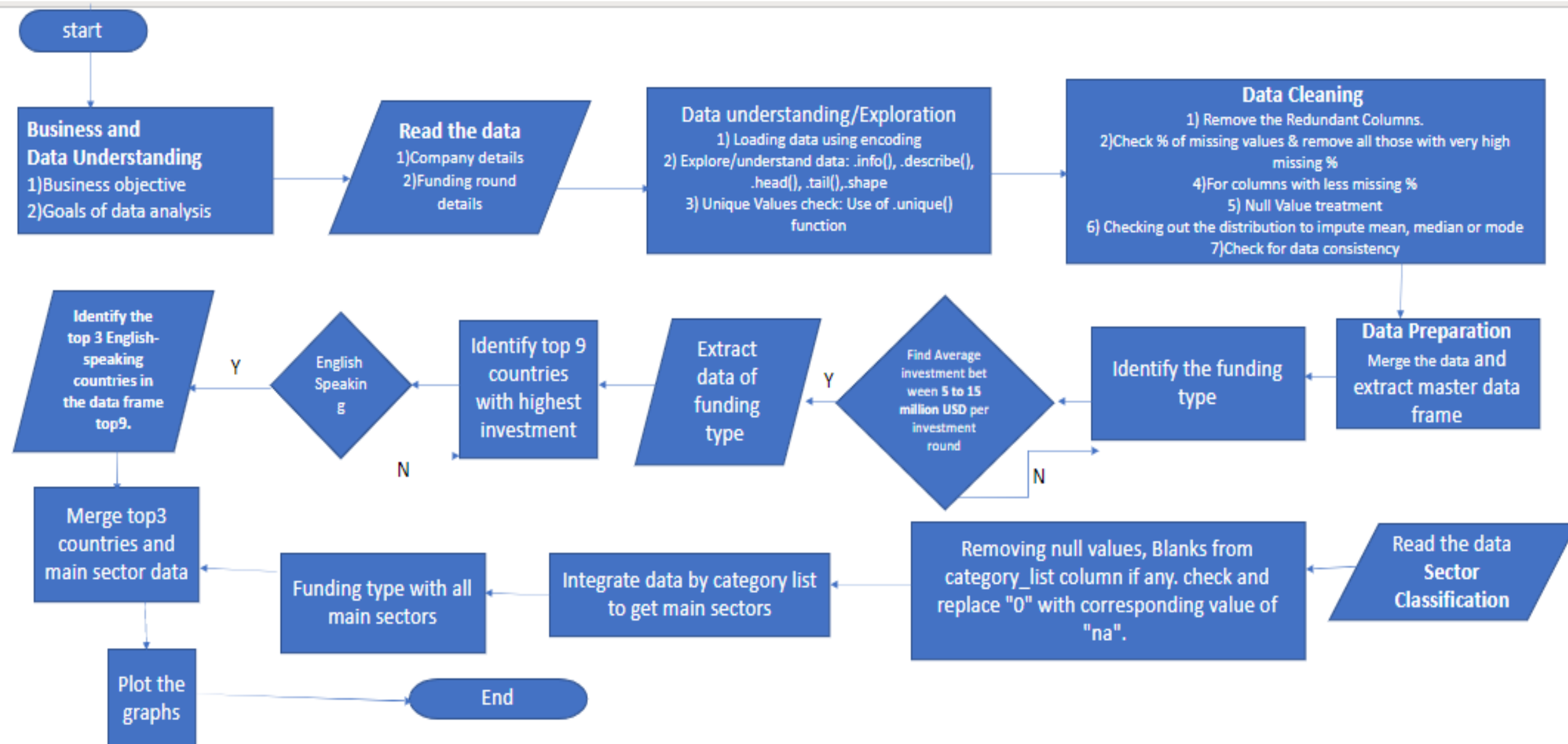
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Abstract: Spark Funds wants to make investments in a few companies. The CEO of Spark Funds wants to understand the global trends in investments so that she can take the investment decisions effectively.

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.
- ✓ **Business objective:** The objective is to identify the best sectors, countries, and a suitable investment type for making investments.
- ✓ **Goals of data analysis:**
- Investment type analysis:** Comparing the typical investment amounts in the venture, seed, angel, private equity etc.
 - 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. (Note that we are interested in the eight 'main sectors' provided in the **mapping file**.)



Funding Type Analysis

The **most representative value of the investment amount** for each of the four funding types (venture, angel, seed, and private equity)

- ✓ Spark Funds wants to invest between **5 to 15 million USD** per investment round.
- ✓ Private equity is having average of **raised_amount_usd** higher than 15 million USD and angel, seed are having average of **raised_amount_usd** less than 5 million USD.
- ✓ **Venture** investment type is the most suitable as average of **raised_amount_usd** is in between **5 to 15 million USD**.

	funding_round_type	raised_amount_usd
0	angel	971573.89
1	private_equity	73938486.28
2	seed	747793.68
3	venture	11724222.69

	funding_round_type	raised_amount_usd
3	venture	1.172422e+07

Country Analysis

Spark Funds wants to invest in countries with the highest amount of funding for the chosen investment type.

Spark Funds wants to see the top nine countries which have received the highest total funding (across ALL sectors for the chosen investment type)

✓ Based on analysis top 9 'USA','CHN','GBR','IND','CAN','FRA','ISR','DEU','JP N' are the top nine countries which have received the highest total funding.

✓ But top 3 English speaking countries are 'USA', 'GBR', 'IND'. So, Spark Funds should invest in these countries.

	country_code	raised_amount_usd
94	USA	4.200680e+11
15	CHN	3.933892e+10
29	GBR	2.007281e+10
39	IND	1.426151e+10
12	CAN	9.482218e+09
28	FRA	7.226851e+09
42	ISR	6.854350e+09
21	DEU	6.306922e+09
45	JPN	3.167647e+09

	country_code	raised_amount_usd
94	USA	4.200680e+11
29	GBR	2.007281e+10
39	IND	1.426151e+10

Top 3 English speaking countries

Based on sector analysis,

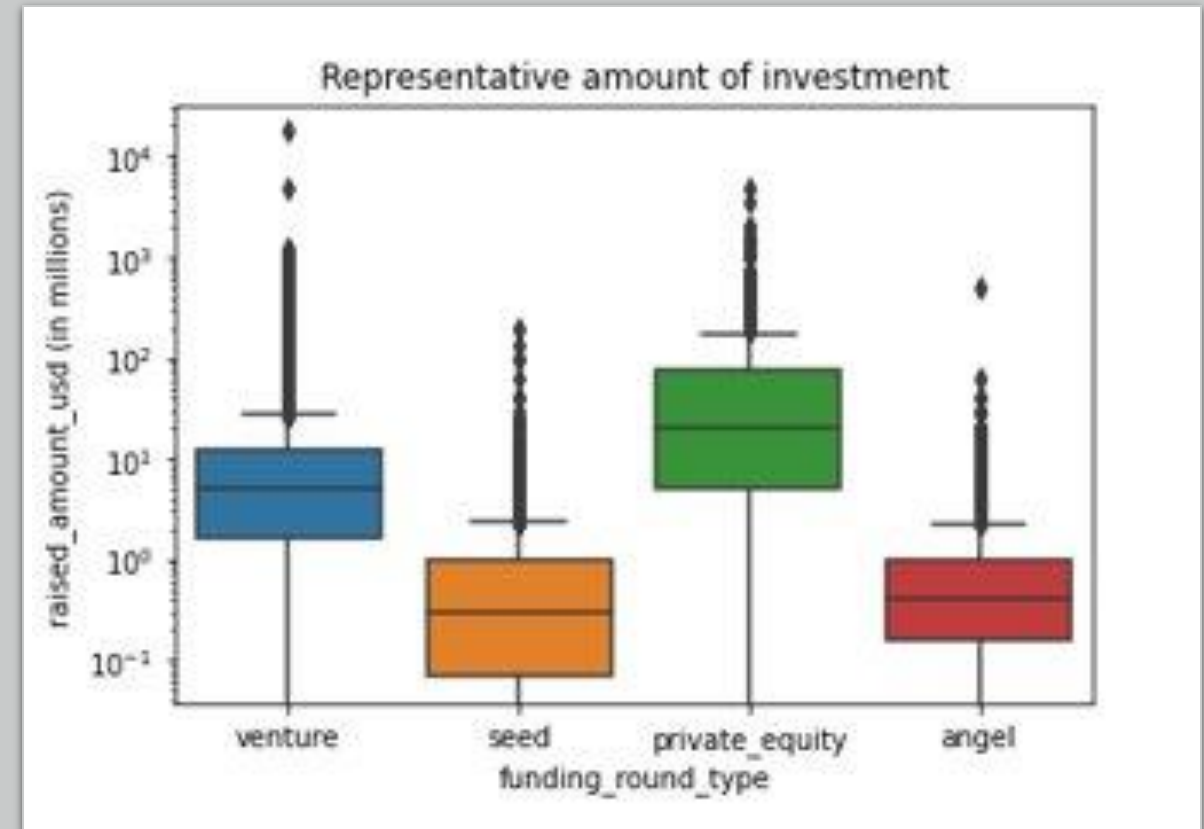
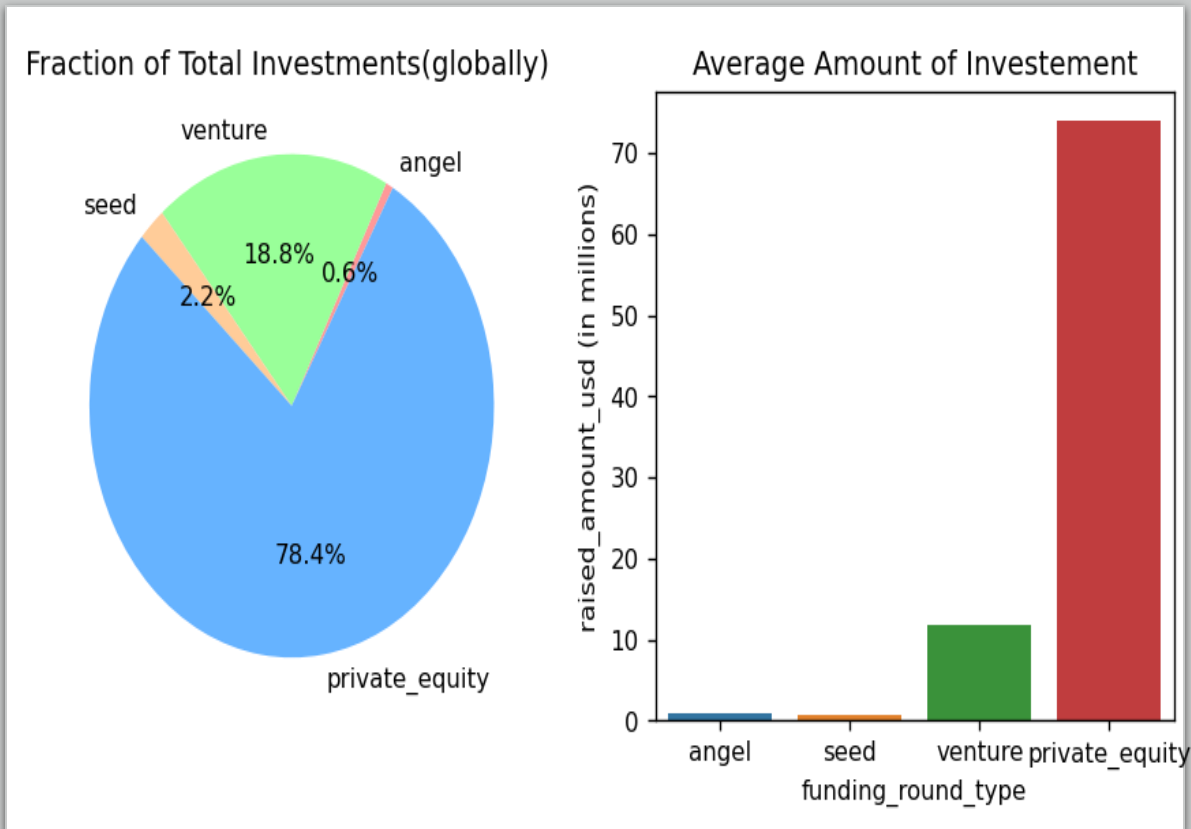
I would recommend

- ✓ Spark Funds to invest in Top 1 country United States("USA") in top 3 main sectors of Others, Social, Finance, Analytics, Advertising, Cleantech / Semiconductors.
- ✓ Spark Funds to invest in Top 2 country United Kingdom("GBR") in top 3 main sectors of Others, Social, Finance, Analytics, Advertising, Cleantech / Semiconductors.
- ✓ Spark Funds to invest in Top 3 country India("IND") in top 3 main sectors of Others, Social, Finance, Analytics, Advertising, News, Search and Messaging.

	main_sector	Total_Investment_Count	Country
0	Others	2950	USA
1	Social, Finance, Analytics, Advertising	2714	USA
2	Cleantech / Semiconductors	2300	USA
3	Others	147	GBR
4	Social, Finance, Analytics, Advertising	133	GBR
5	Cleantech / Semiconductors	128	GBR
6	Others	110	IND
7	Social, Finance, Analytics, Advertising	60	IND
8	News, Search and Messaging	52	IND

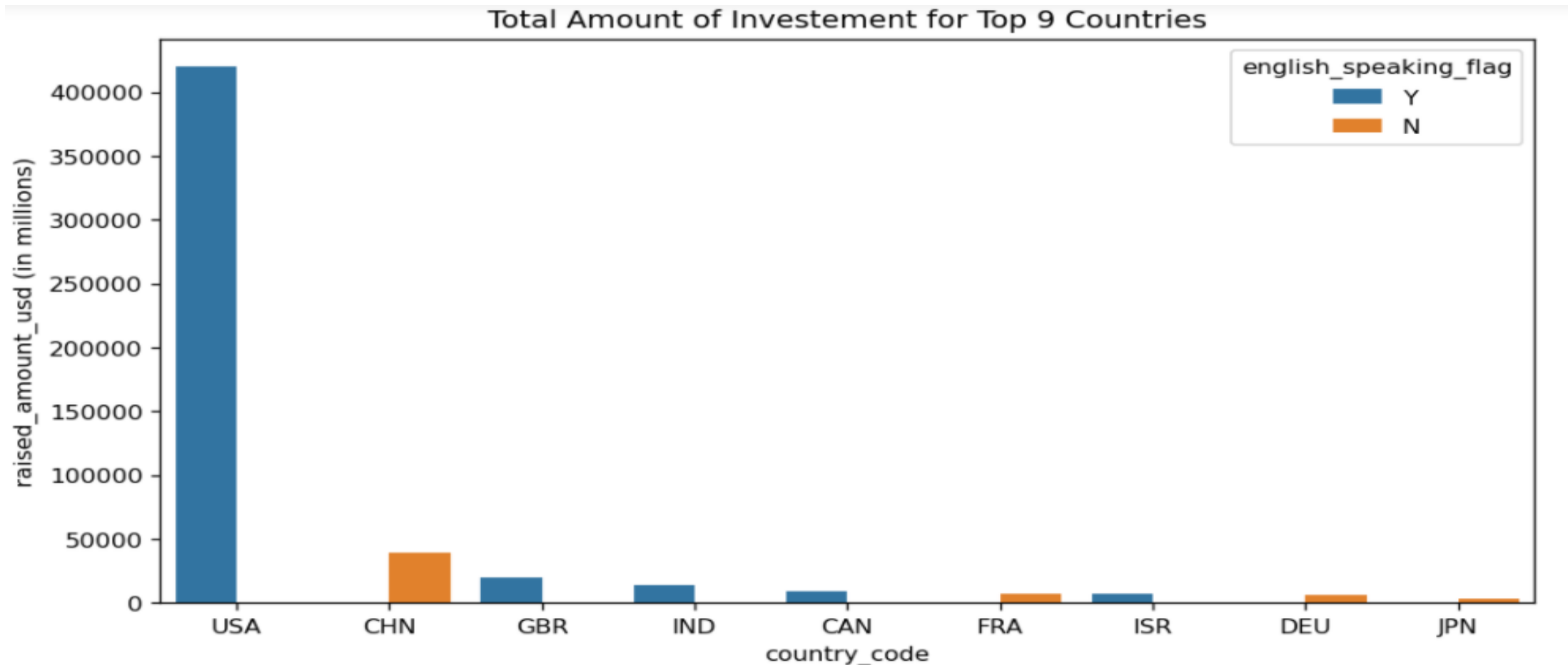
Results

A plot showing **the representative amount of investment** in each funding type. This chart should make it clear that a certain funding type (FT) is best suited for Spark Funds.

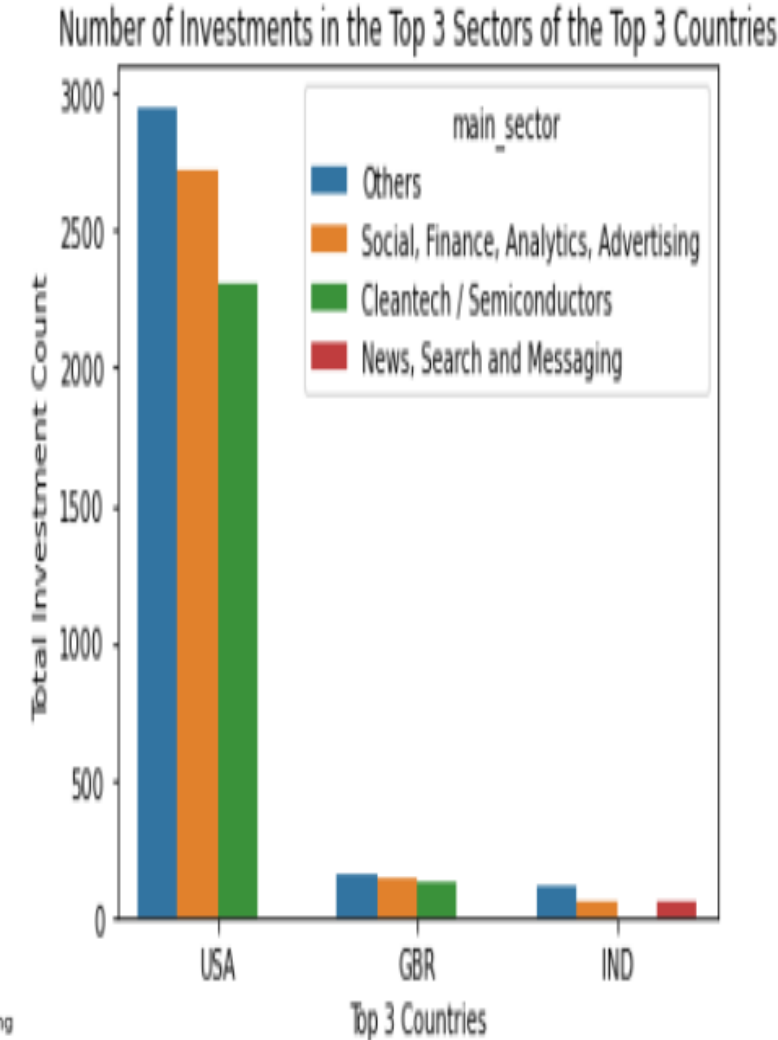
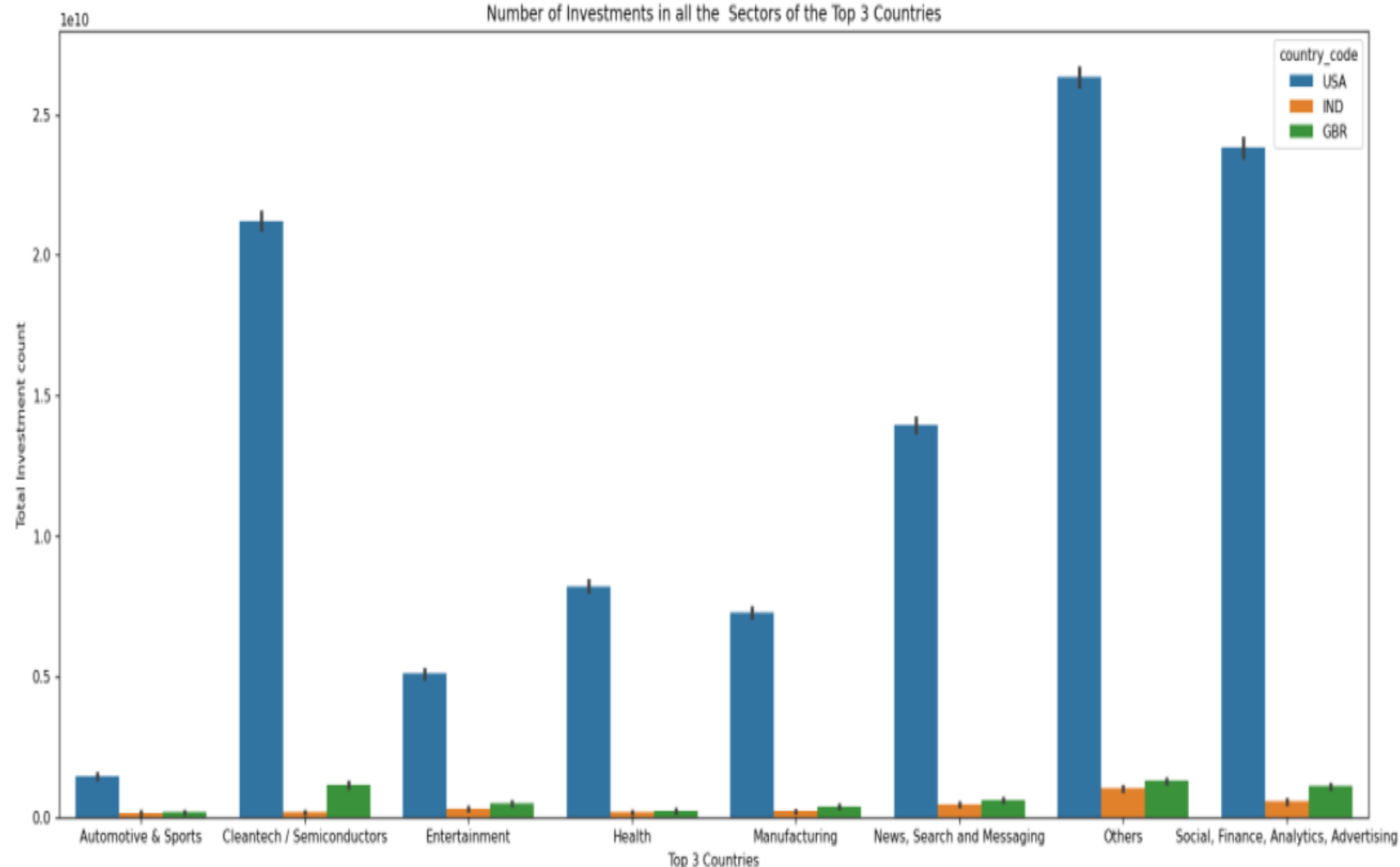


Results

A plot showing the top 9 countries against the total amount of investments of funding type FT. This should make the top 3 countries (Country 1, Country 2, and Country 3) very clear.



A plot showing the number of investments in the **top 3 sectors** of the **top 3 countries** on one chart (for the chosen investment type FT). This plot should clearly display the top 3 sectors each in Country 1, Country 2, and Country 3.



Conclusions

Based on the analysis of the investment data we can conclude the following:

- **"Venture"** investment type is the most suitable investment type as the average size of the investment is in between 5 to 15 million USD.
- The three most investment-friendly countries and the most suited funding type for Spark Funds are **USA, United Kingdom, India.**
- The most heavily invested main sectors in each of the three countries (for funding type FT and investments range of 5-15 M USD) are:
 - USA** – 1)Others, 2)Social, Finance, Analytics, Advertising, 3)Cleantech / Semiconductors.
 - United Kingdom** - 1)Others, 2)Social, Finance, Analytics, Advertising, 3)Cleantech / Semiconductors.
 - India** - 1)Others, 2)Social, Finance, Analytics, Advertising, 3)News, Search and Messaging.