INVESTMENT ASSIGNMENT

SUBMISSION

Name: Javed Anwar

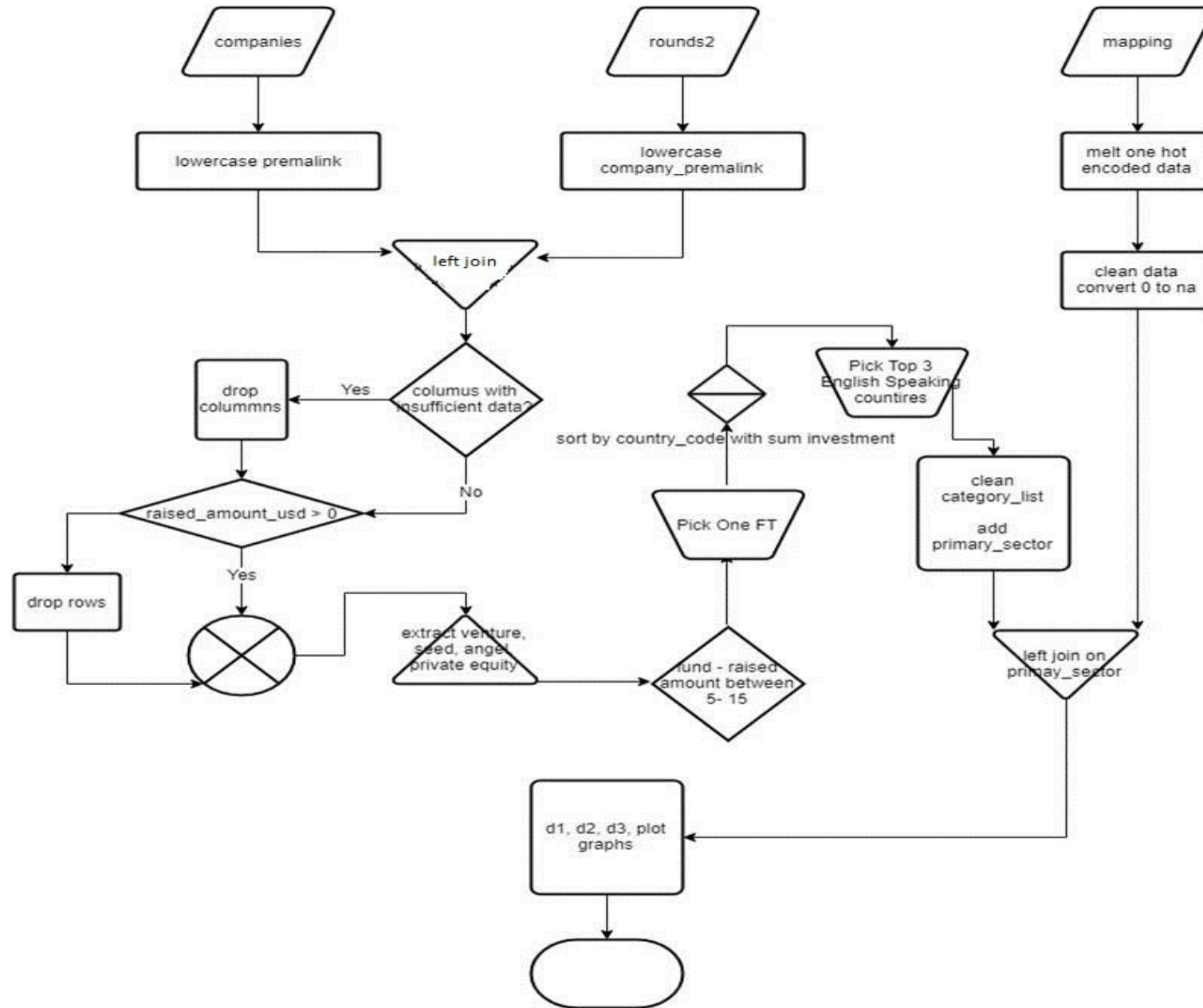# Spark Funds Investment Case Study

Spark Funds wants to make investments in a few companies.

Spark Funds wants 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

Flow Chart

Analysis- Understand the Data Set

Sl. No	Questions	Answer
1	How many unique companies are present in rounds2?	66370
2	How many unique companies are present in the companies file?	66368
3	In the **companies** data frame, which column can be used as the unique key for each company? Write the **name of the column**.	permalink
4	Are there any companies in the rounds2 file which are not present in **companies** ? Answer **Y/N**.	Y
5	Merge the two data frames so that all variables (columns) in the **companies** frame are added to the **rounds2** data frame. Name the merged frame **master_frame**. How many observations are present in **master_frame ?**	114949

Analysis - Average Values of Investments for Each of these Funding Types

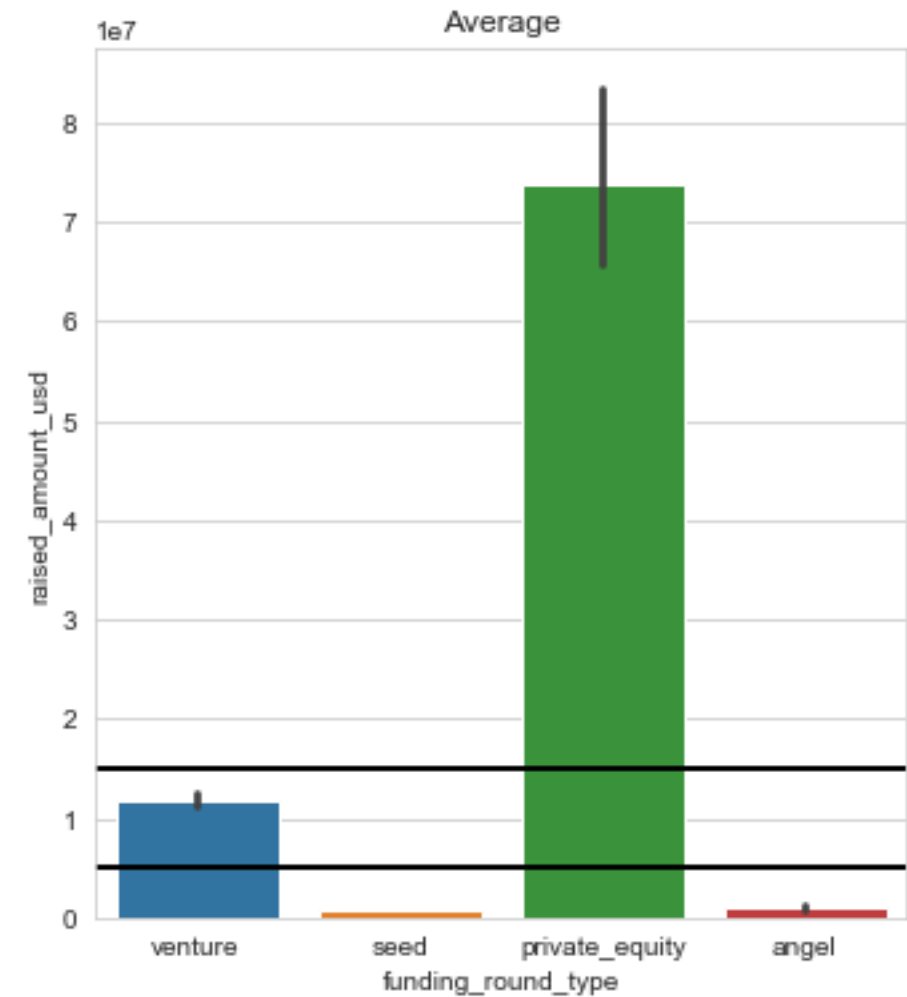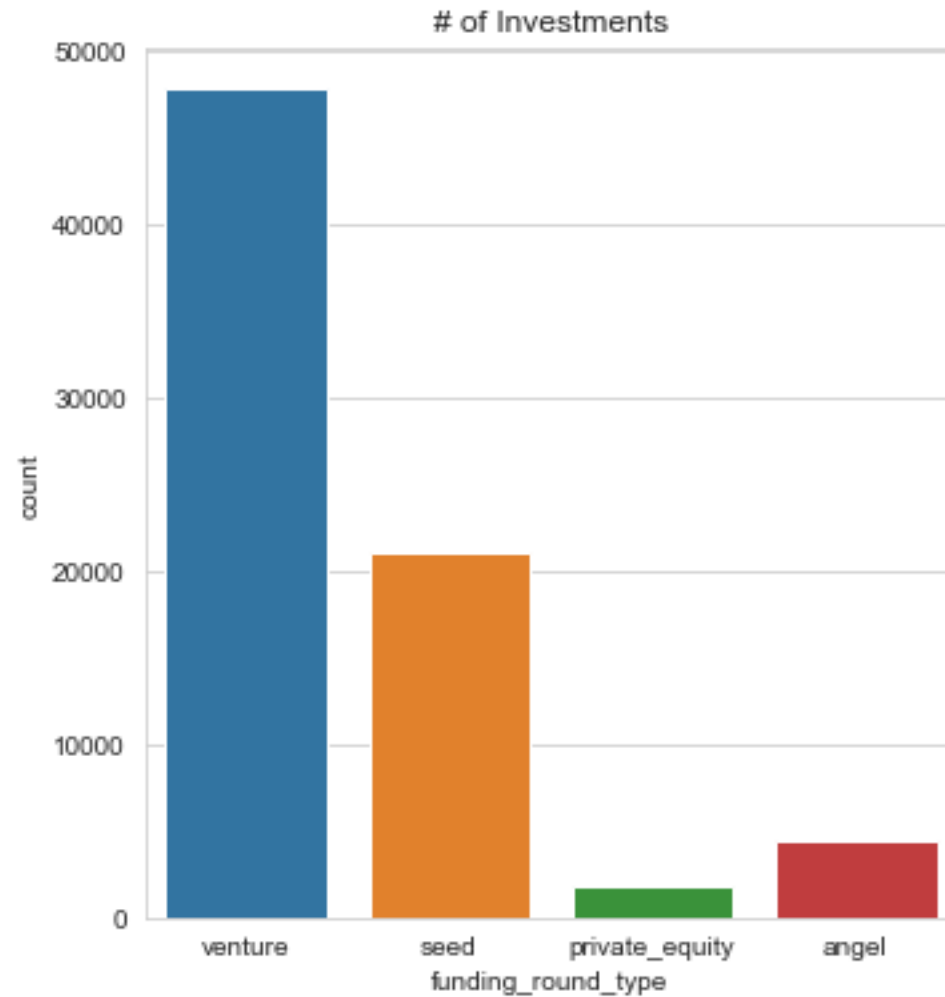| Sl.No	Questions	Answer
1	Average funding amount of venture type	11,724,222.69
2	Average funding amount of angel type	971,573.89
3	Average funding amount of seed type	747,793.68
4	Average funding amount of private equity type	73,938,486.28
5	Considering that Spark Funds wants to invest between **5 to 15 million USD** per investment round, which investment type is the most suitable for them?	Venture

Analysis - Top 3 English-Speaking Countries

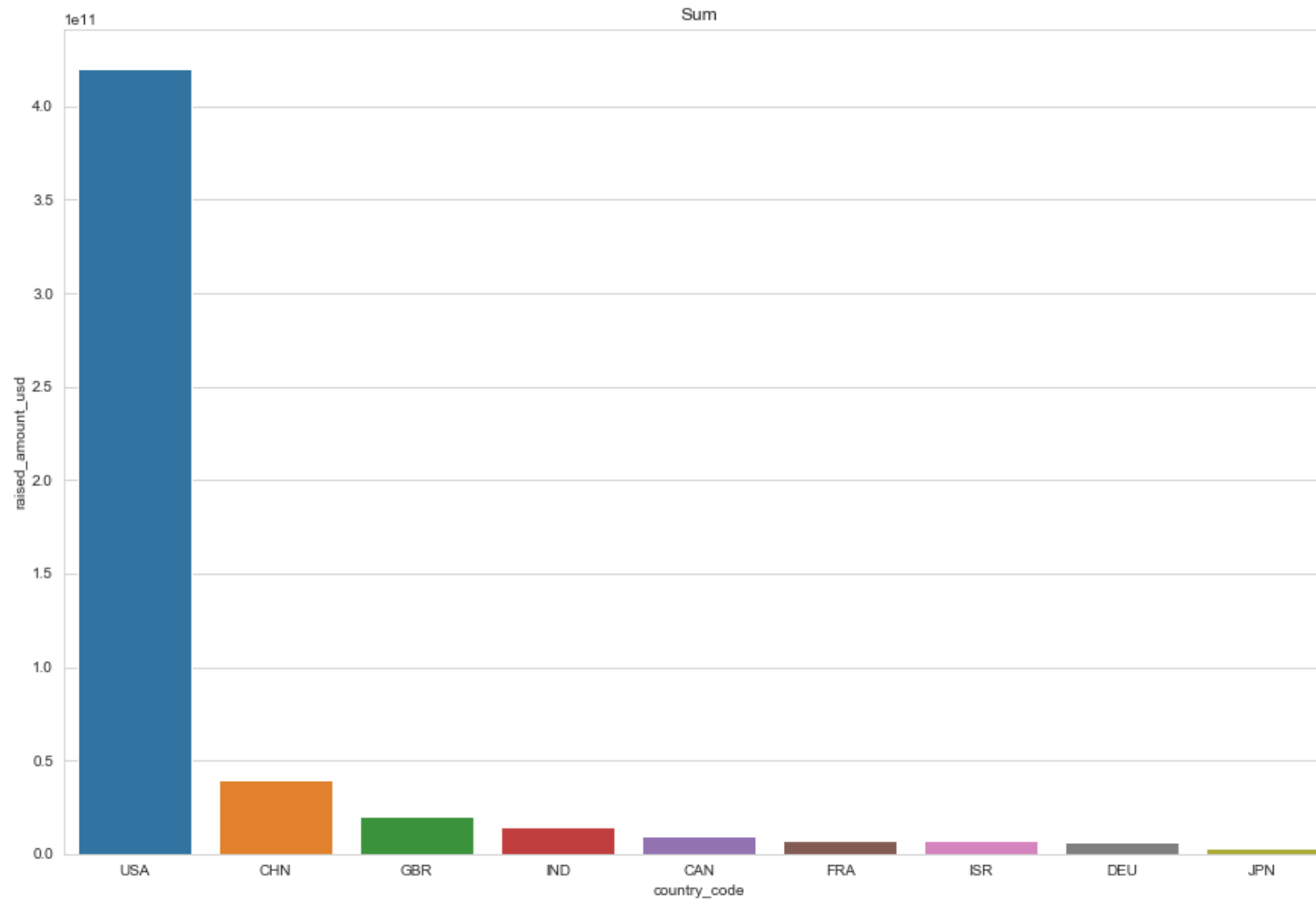| Sl.No	Questions	Answers
1	Top English speaking country	USA
2	Second English speaking country	GBR
3	Third English speaking country	IND

Analysis - Sector-wise Investment

Sl.no	Questions	C1	C2	C3
1	Total number of Investments (count)	12012	619	328
2	Total amount of investment (USD)	1.07E+11	5365228300	2949543602
3	Top Sector name (no. of investment-wise)	Others	Others	Others
4	Second Sector name (no. of investment-wise)	Social, Finance, Analytics, Advertising	Social, Finance, Analytics, Advertising	Social, Finance, Analytics, Advertising
5	Third Sector name (no. of investment-wise)	Cleantech / Semiconductors	Cleantech / Semiconductors	News, Search and Messaging
6	Number of investments in top sector (3)	2950	147	110
7	Number of investments in second sector (4)	2714	133	60
8	Number of investments in third sector (5)	2300	128	52
9	For point 3 (top sector count-wise), which company received the highest investment?	/organization/virtustream	/organization/electric-cloud	/organization/firstcry-com
10	For point 4 (second best sector count-wise), which company received the highest investment?	/organization/shotspotter	/organization/celltick-technologies	/organization/manthan-systems

A plot showing the fraction of total investments (globally) in venture, seed, and private equity, and the average amount of investment in each funding type.
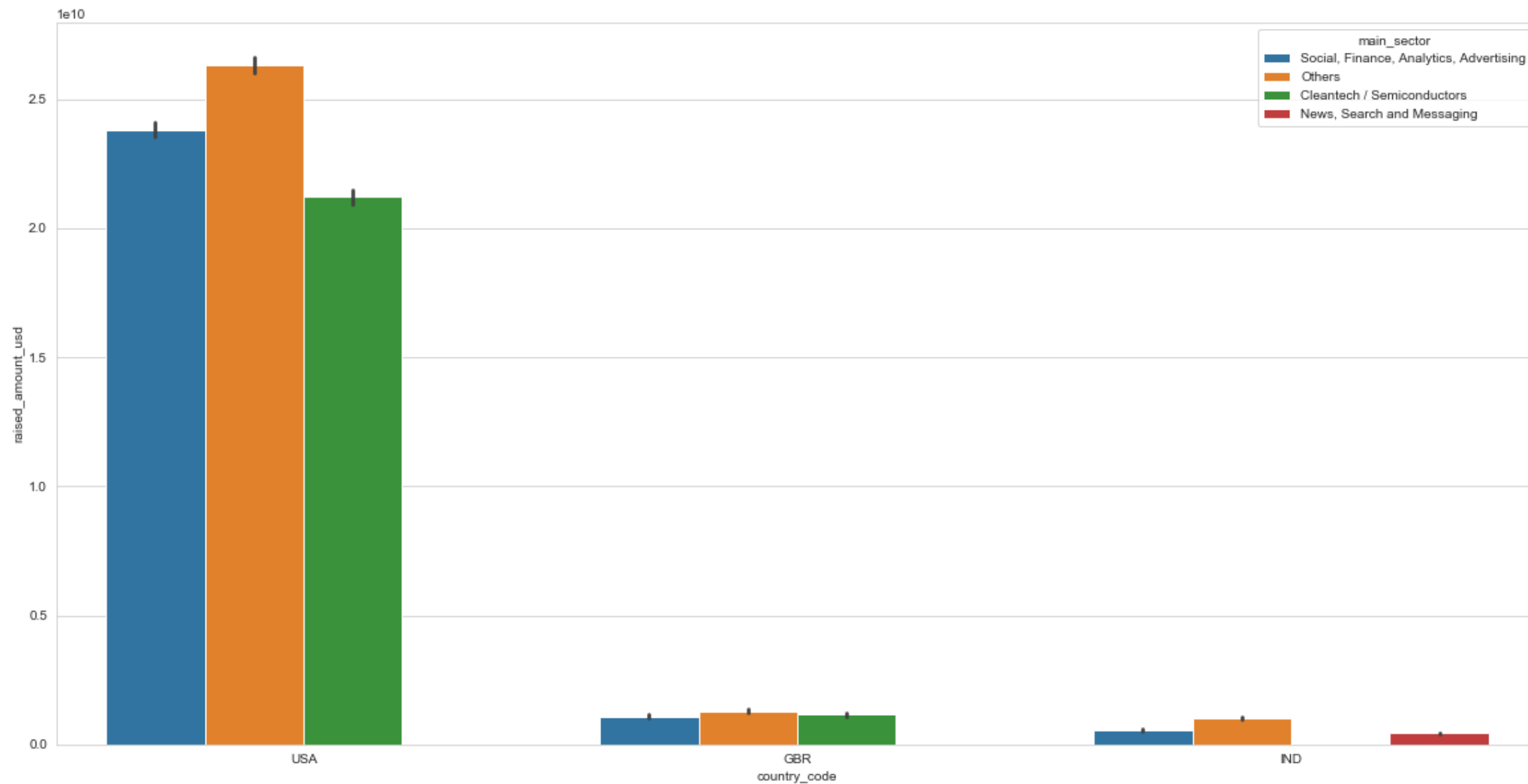
A plot showing the top 9 countries against the total amount of investments of funding type FT. This should make the top 3 countries (Country 1, Country 2, and Country 3) very clear.

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

Conclusions

Based on the data it is clear that USA is the prime place to make investment, going by the number and volume of investments, 50% of the amount can be invested in the top 2 companies on the top 2 sectors shared equally among all 4 companies

- Virtustream
- Capella
- Shotspotter
- Demandbase

Next set of investment 25% each can be made at the top company of the top 2 sector in GBR and India respectively

- electric-cloud
- celltick-technologies
- manthan-systems
- firstcry-com

Which makes an even share of 12.5% across all the identified 8 companies.

Average total investment across the 8 identified companies as per the data is around 40 million with median between 5-15 million