

INVESTMENT ASSIGNMENT

SUBMISSION

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Spark Funds Investment Analysis (EDA)

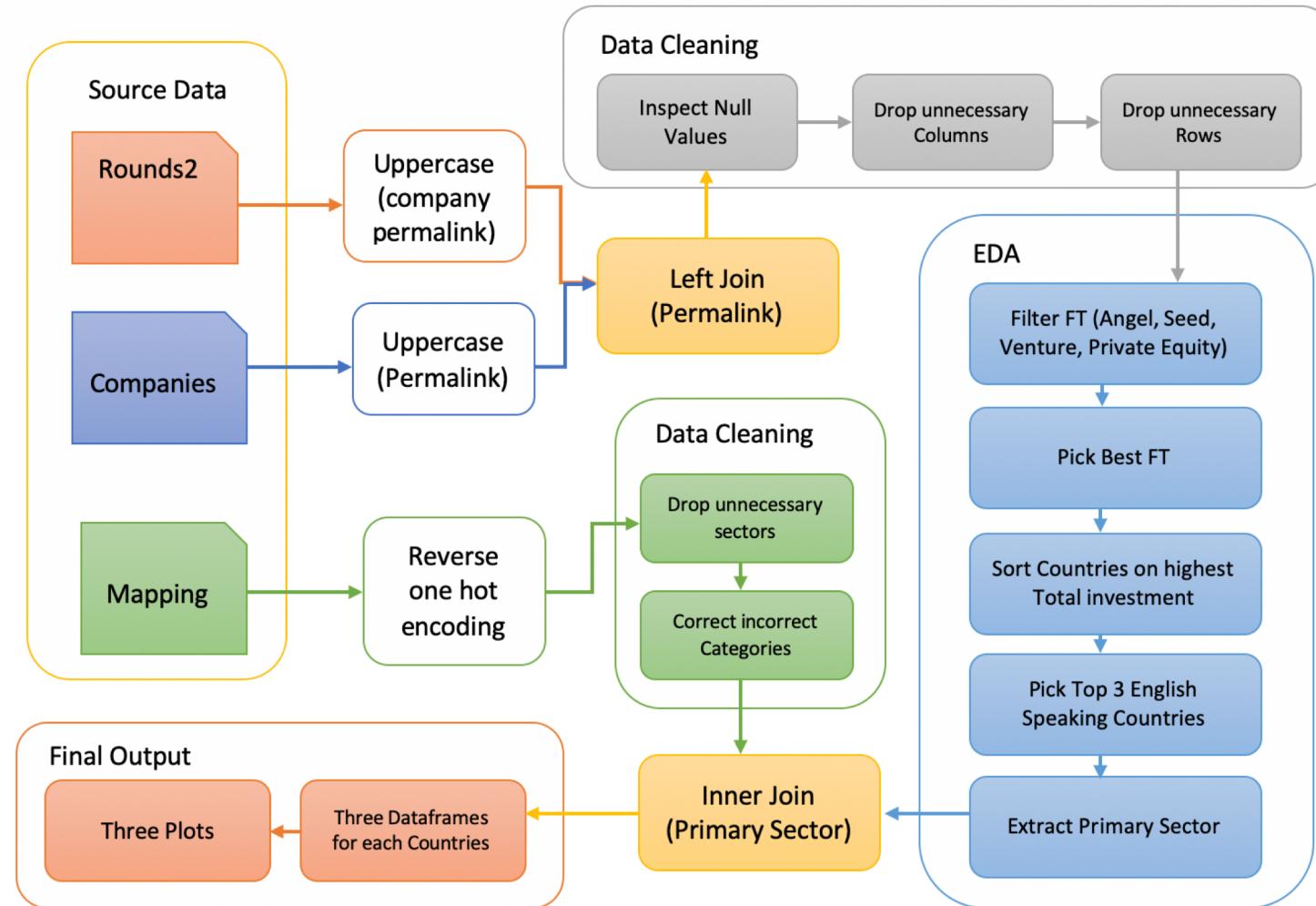
Spark Funds wants to make **investments** in a few companies. The CEO of Spark Funds wants to **understand the global trends in investments** so that she can take the investment decisions effectively.

Spark Funds has two constraints:

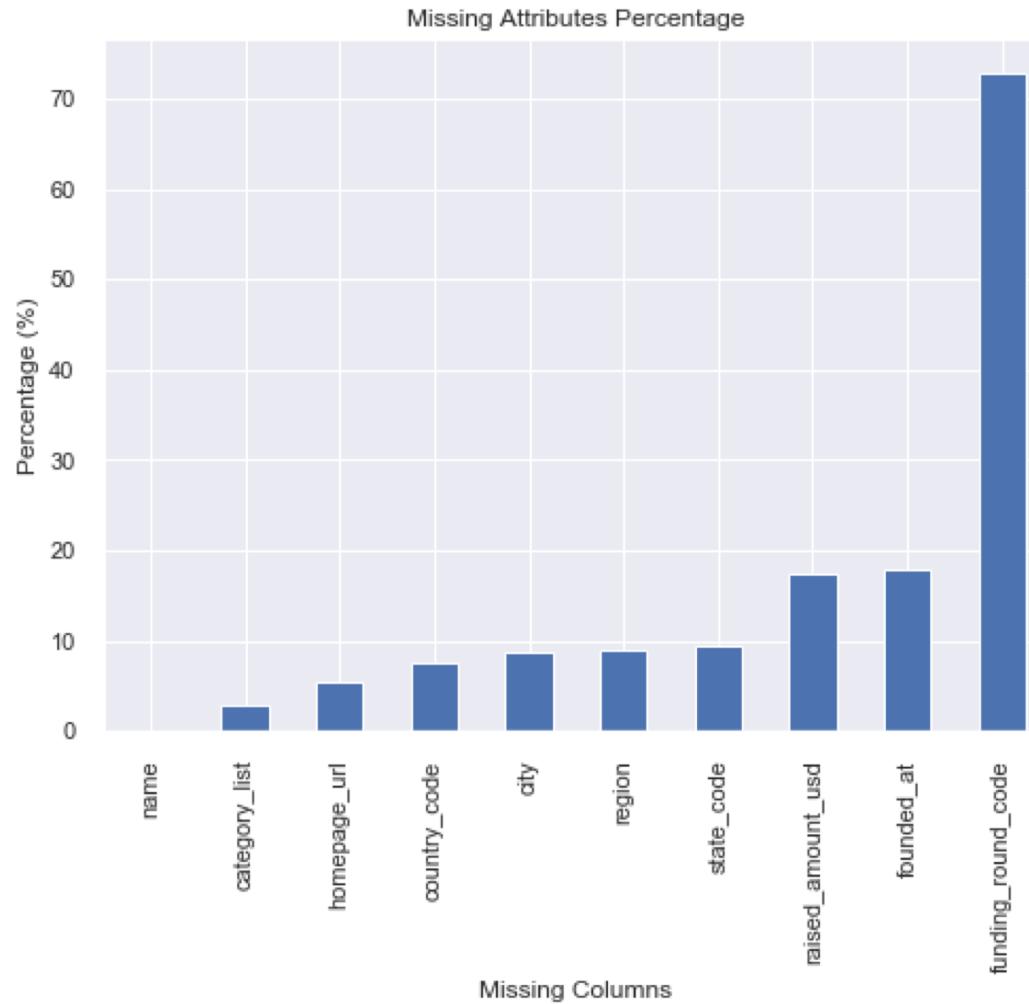
- It wants to invest between **5 to 15 million USD** per round of investment
- It wants to **invest only in English-speaking countries** because of the ease of communication with the companies it would invest in

The objective is to identify the **best sectors, countries**, and a **suitable investment type** for making investments.

Problem Solving Methodology



Analysis 1 - Missing Attributes Analysis

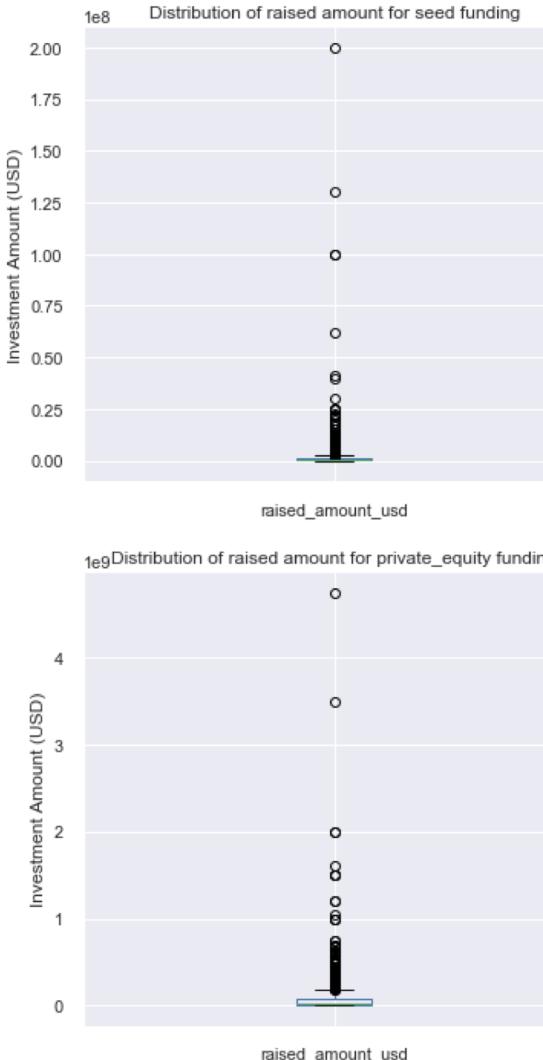
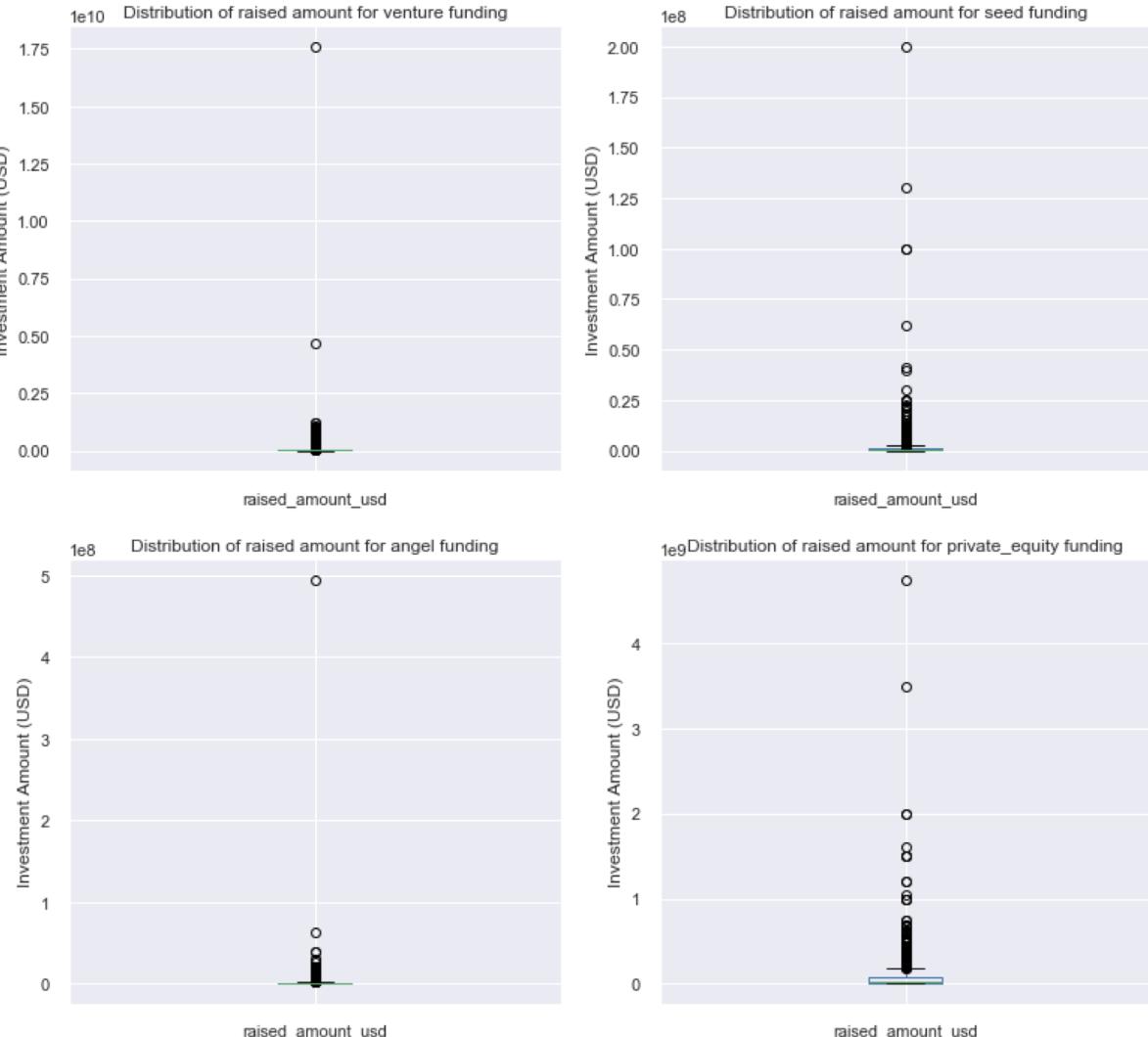
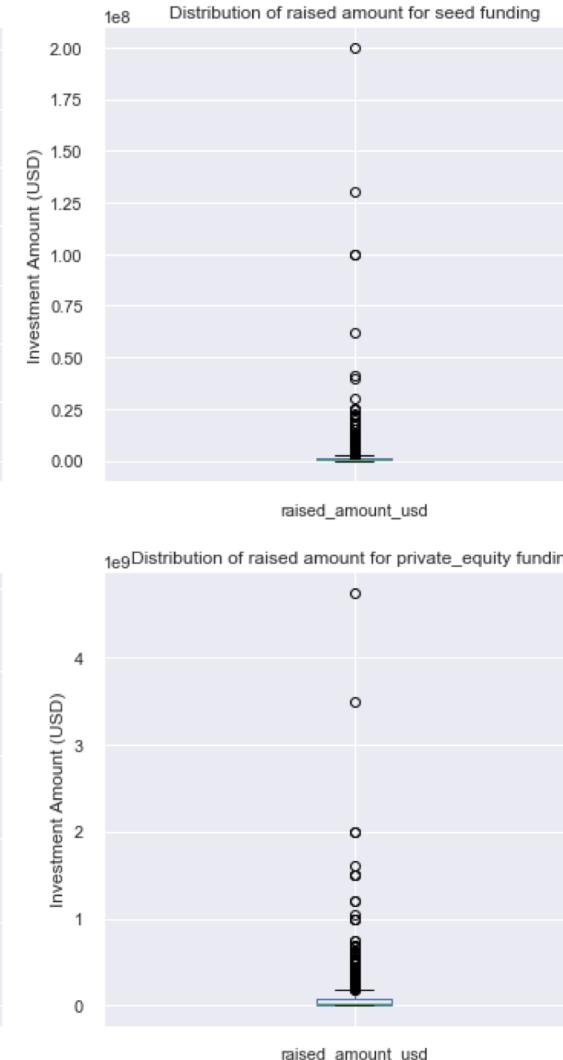
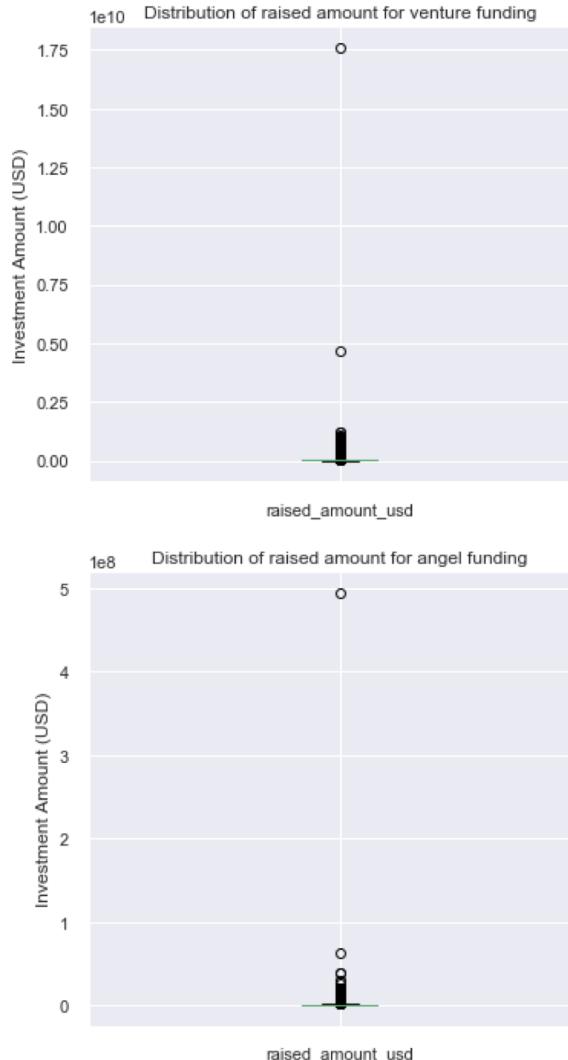


funding_round_code can be removed as it has ~72% of the missing values

All **missing country code** have same count of missing state_code, region and city so we cannot use these fields to impute country_code and thus can be dropped

Fields **funded_at, founded_at** are date fields and can be dropped as we are not doing any date/time based analysis

Analysis 2 - Distribution of Funding Type (Angel, Seed, Venture, Private Equity)



Based on the box plots there seems to be a lot of outliers in each funding type

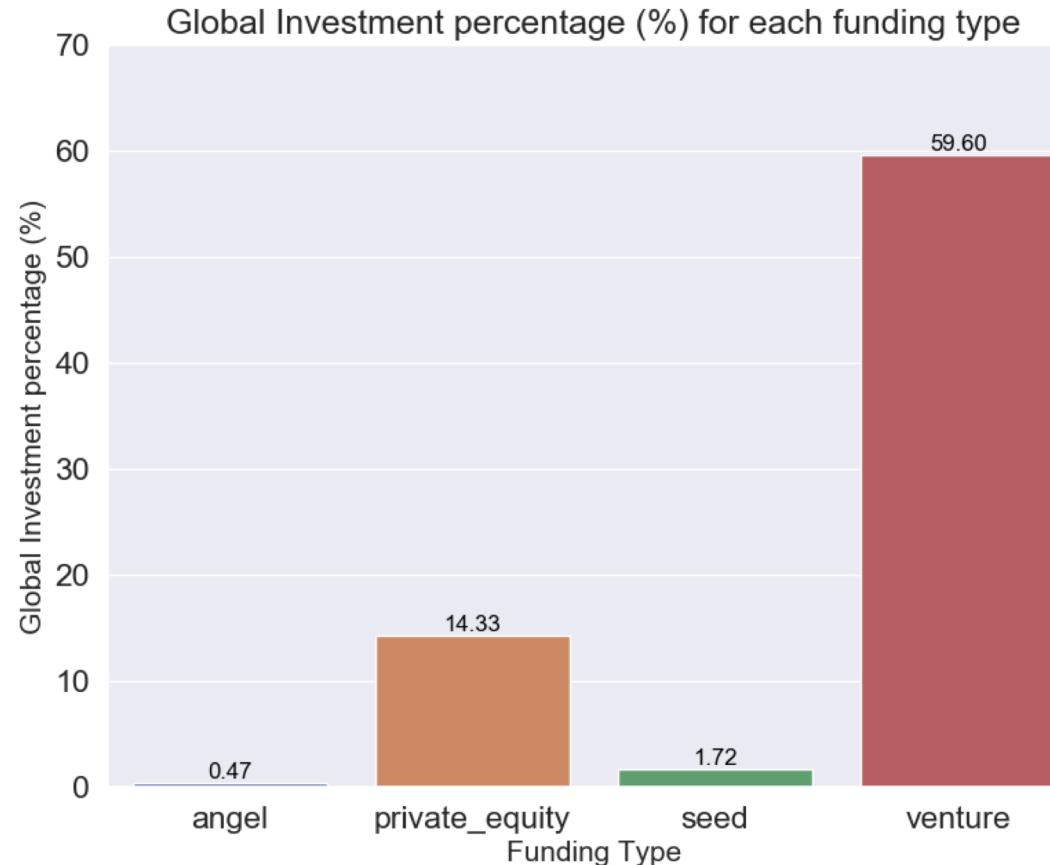
Median is the best representative value when there are outliers in the data

Analysis 3 -Total number of investment for different Funding Range

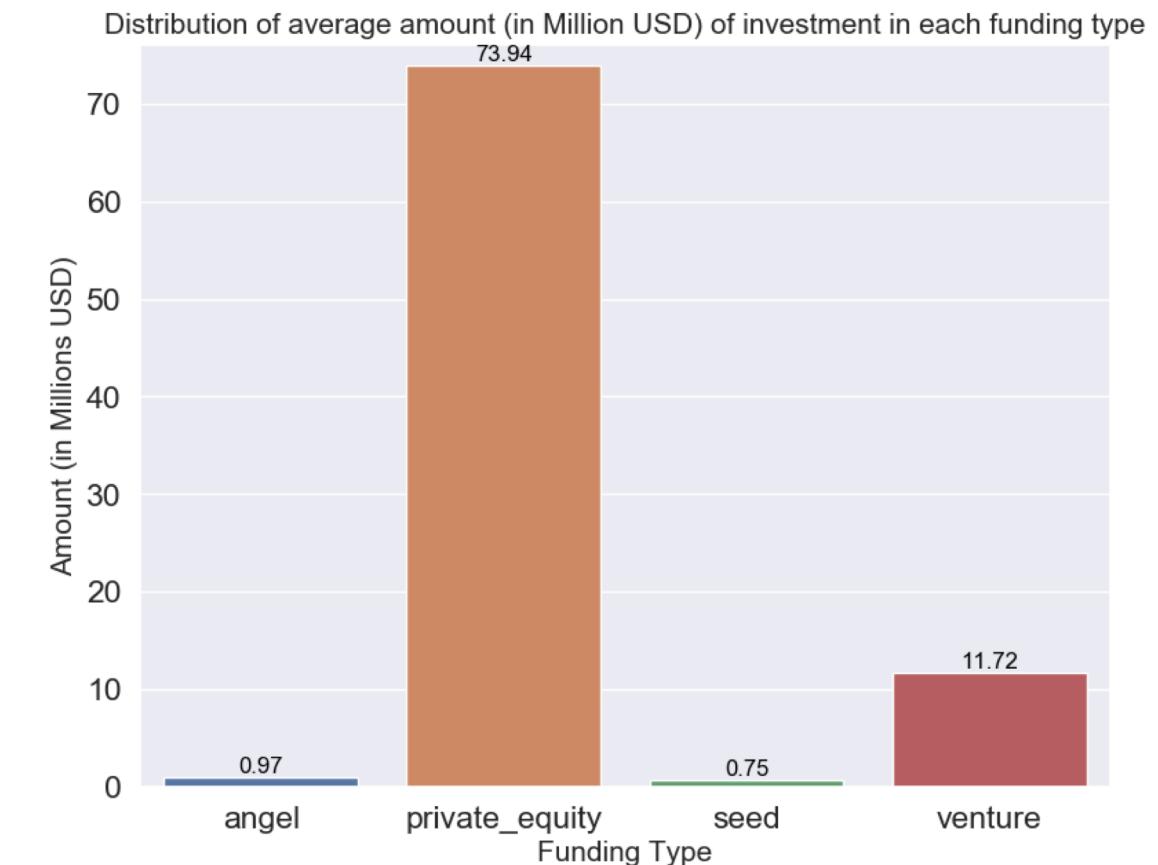


"Venture" funding type is having maximum number of investments across different Funding range
(Range Defined: 'Less than 5M', 'Greater than 15M' and 'Between 5M to 15M')

Plot 1: Fraction of Total investments (globally) in angel, venture, seed, and private equity, and the average amount of investment in each funding type

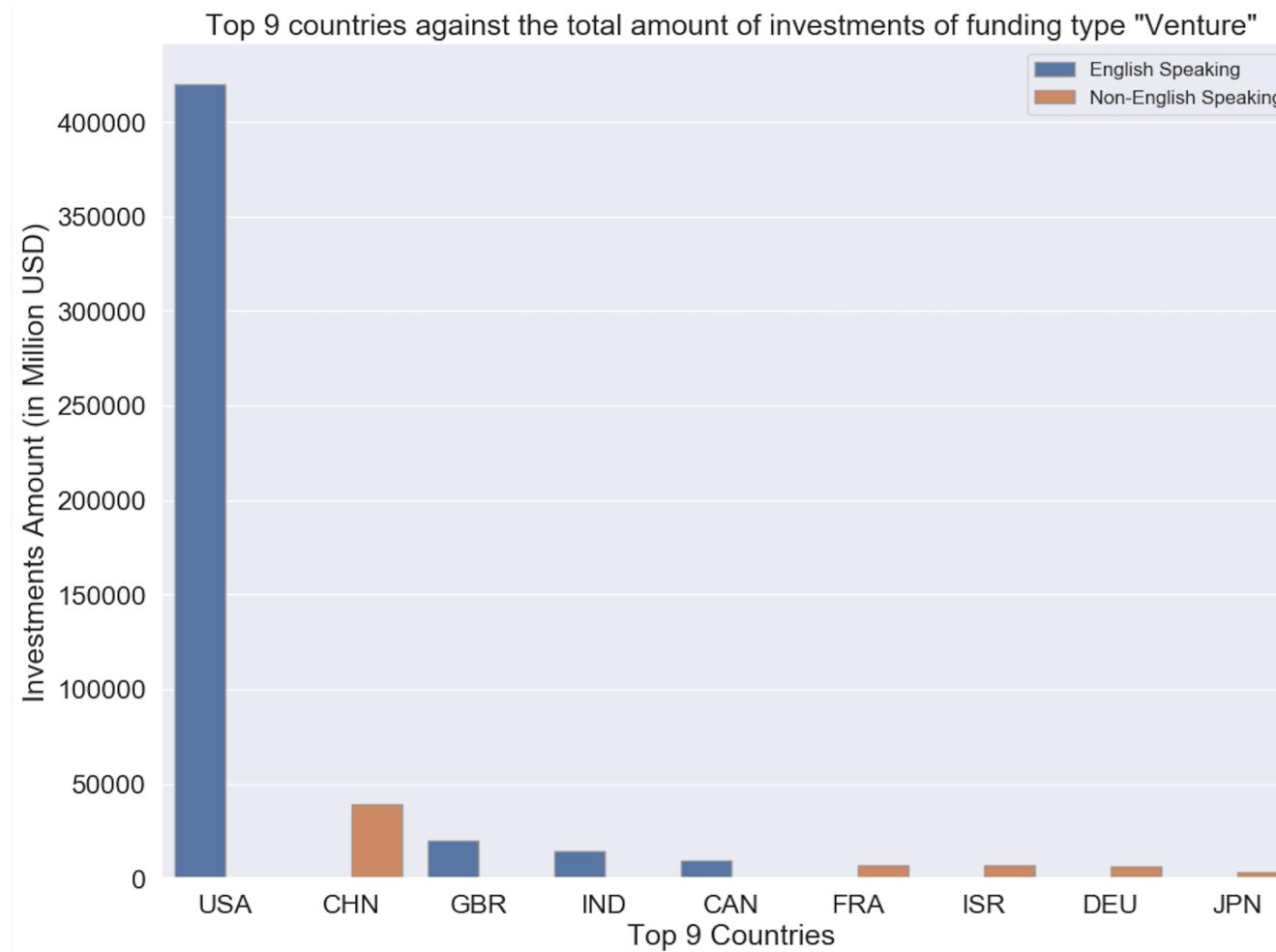


"Venture" has the highest percentage (~60%) among the funding type



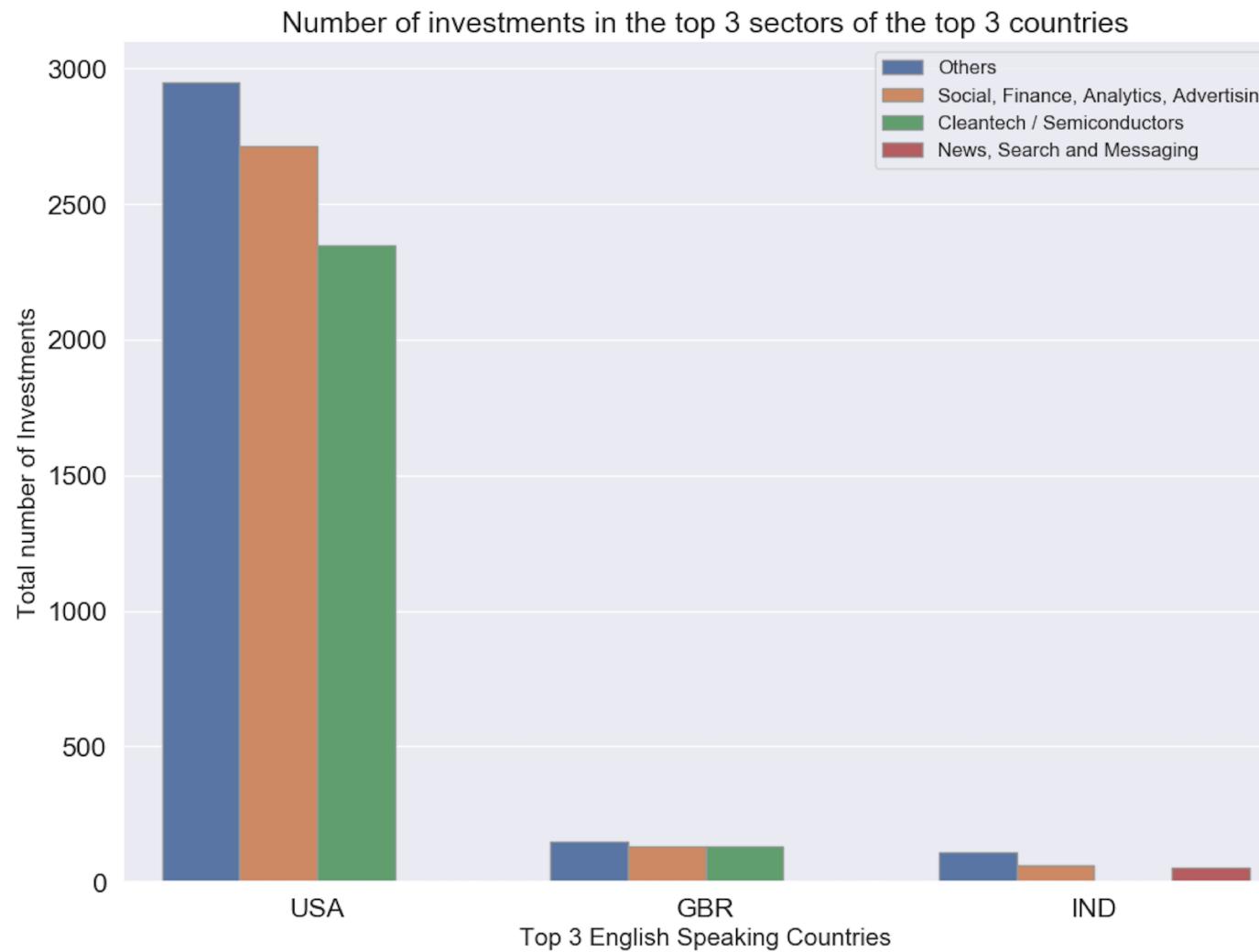
"Venture" lies between the range of 5M to 15M USD

Plot 2: Top 9 countries against the total amount of investments of "Venture" funding type



United States, United Kingdom and India are the top 3 English Speaking Countries

Plot 3: Top 3 sectors of the top 3 countries



"Others" and **"Social, Finance, Analytics, Advertising"** sectors are the top 2 sectors in all three countries

"Cleantech / Semiconductors" is the 3rd top sector in **USA** and **GBR**

"News, Search and Messaging" is the 3rd top sector in **IND**

Conclusion

- The suitable investment identified was "**Venture**" Funding Type among the various Funding Type options such as Angel, Seed, Private Equity and Venture.
- The top 3 English Speaking Countries identified suitable for investing for "Venture" Funding Type are **United States, United Kingdom and India**. However, investments in USA are way more than GBR and IND making USA the most preferred choice of country for Investments.
- Across top 3 English Countries, "**Others**" and "**Social, Finance, Analytics, Advertising**" sectors are the top 2 best sectors to invest in.
- "**Cleantech / Semiconductors**" is the third best sector in United States and United Kingdom to invest whereas "**News, Search and Messaging**" is the third best sector in India to invest.