

INVESTMENT ASSIGNMENT

SUBMISSION

Name: **Kotipalli Kamala Bandhavi**

Spark Funds Investment Analysis

Spark Funds, an asset management company, and 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, It wants to invest between **5 to 15 million USD**.

Strategy:

Spark Funds wants to invest where most **other investors are investing**. This pattern is often observed among early stage start-up investors.

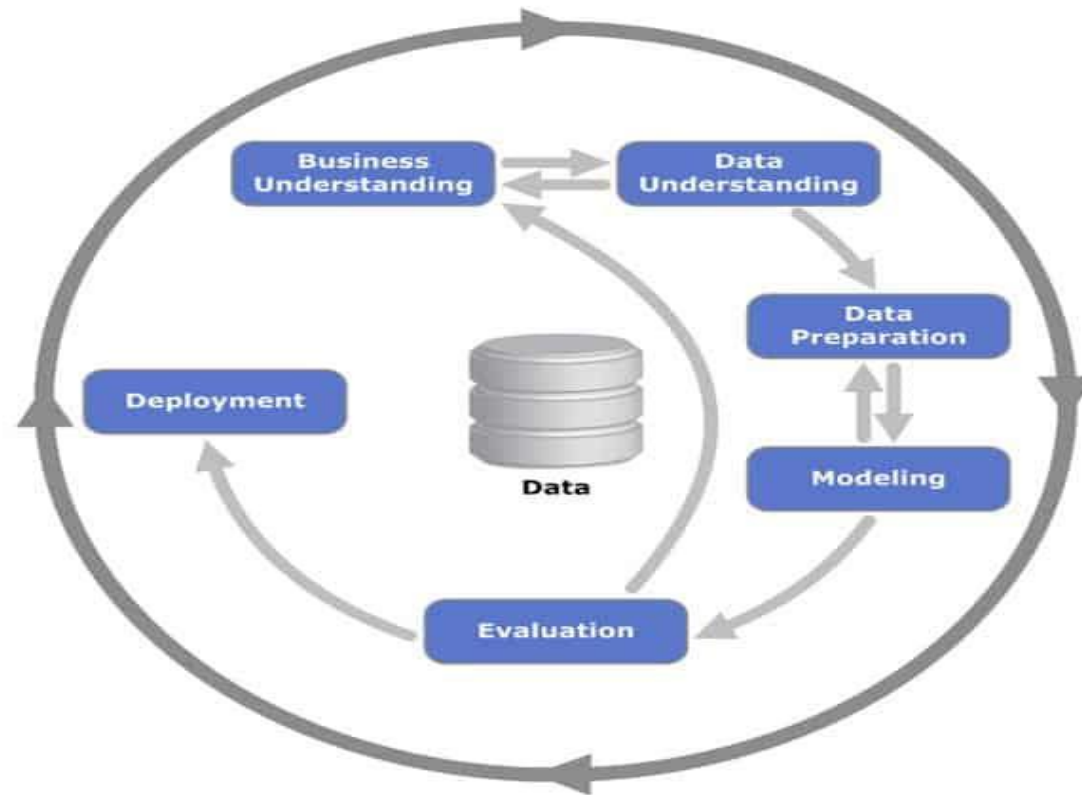
Business objective:

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'.

To identify

1. Best Investment Type
2. Top English speaking countries to invest
3. Top sectors to invest

Problem solving methodology : CRISP FRAME WORK



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.

1. Read the companies and rounds datasets.
2. Checking the unique ID and common columns present in the both the tables.
3. Clean the data if we have any null values for the required column `raised_amount_usd`
4. Checking the mean of the four funding types mentioned above
5. See plot 1: its clear that **Venture** is the investment type that is between 5 to 15 million USD

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

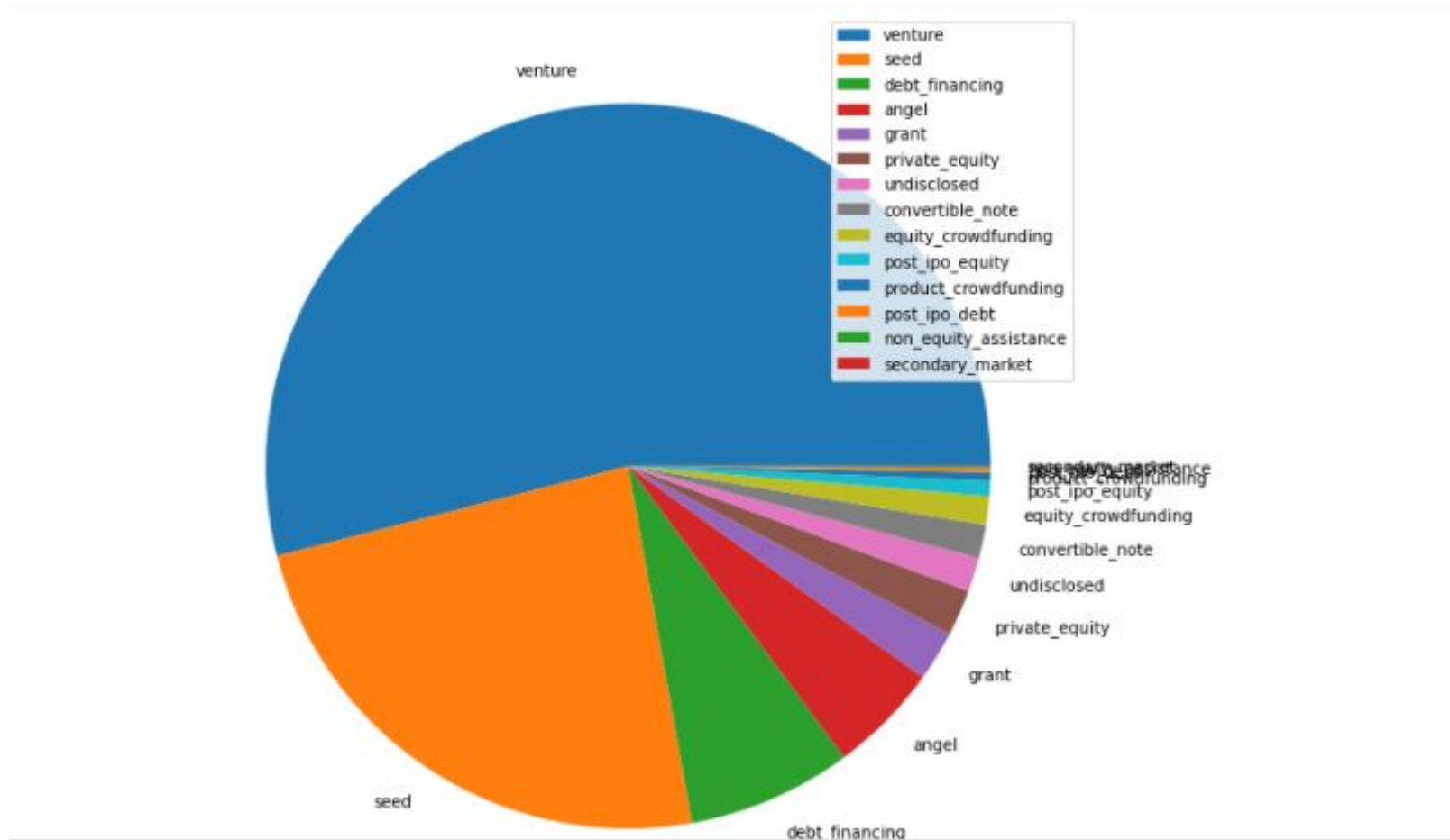
1. As we know that investment type is Venture , take only the Venture entities in the master_frame
2. Create pivot table for raised_amount_USD and country_code to sum to get the sum values of each country wise and named the data set as top9
3. From top9 take the top9 countries
4. Analyse the top9 countries data and take only top 3 English speaking countries
5. Plot2 will show the top9 countries and the most English speaking countries are USA, IND , GBR

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

1. As we have identified the top English speaking countries are USA, GBR, IND. Lets make the master_frame restricted to these three countries and the raised_amount_USD between 5 million to 15 million.
2. Read the mapping file data and clean it to have correct data .
3. As the master_frame, category_lst contains several things the first sector before the vertical bar is considered as primary sector, extracted primary sector to a separate column
4. Mapping file data is pivoted , lets unpivot that to have 8 sectors and category lists and call it as main_sector
5. Merge the mapping and master_Frame to masterframe on category_list and primary sector.
6. Now we all the data in master_frame and its main_sector as well.
7. Separate country wise data frames respectively to D1, D2, D3 and getting the top 3 sectors which spark funds can invest in.
8. Plot3 shows the top 3 sectors in each country that spark fund can invest between 5 to 15 million USD in investment type of **Venture**

Most Invested Funding Type

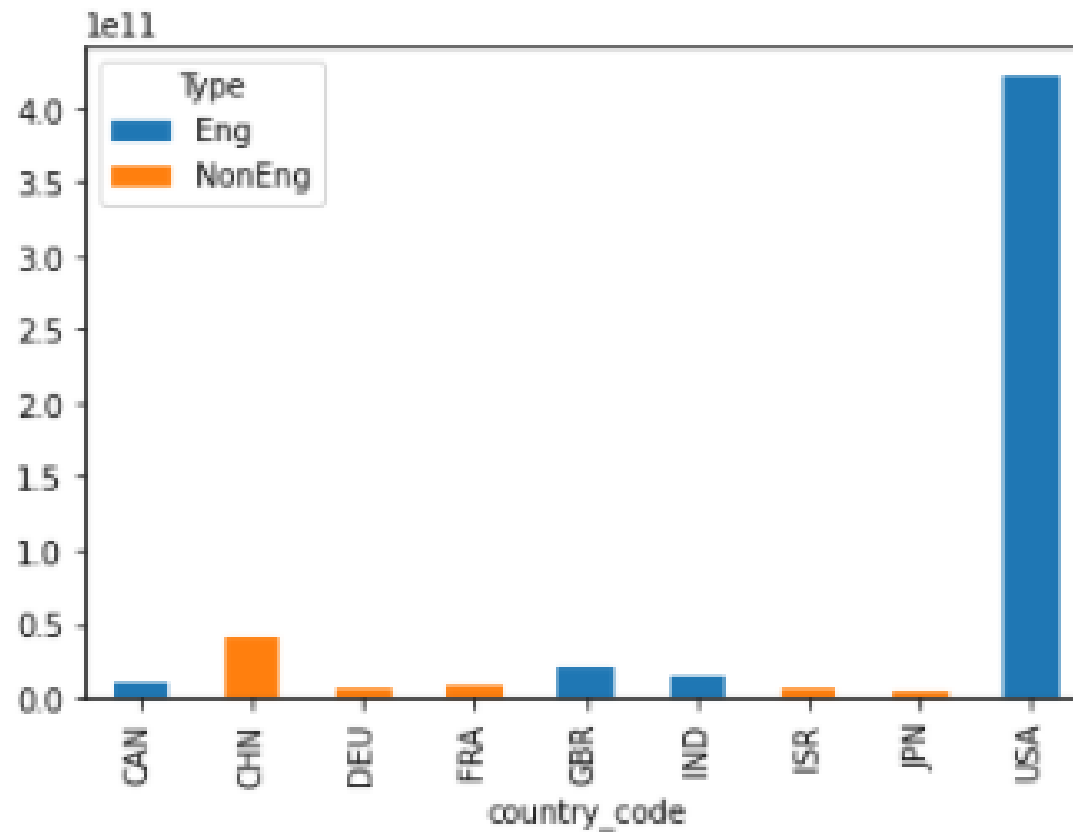
Plot 1



Venture is the most invested investment type among the all

Most English speaking countries invested in

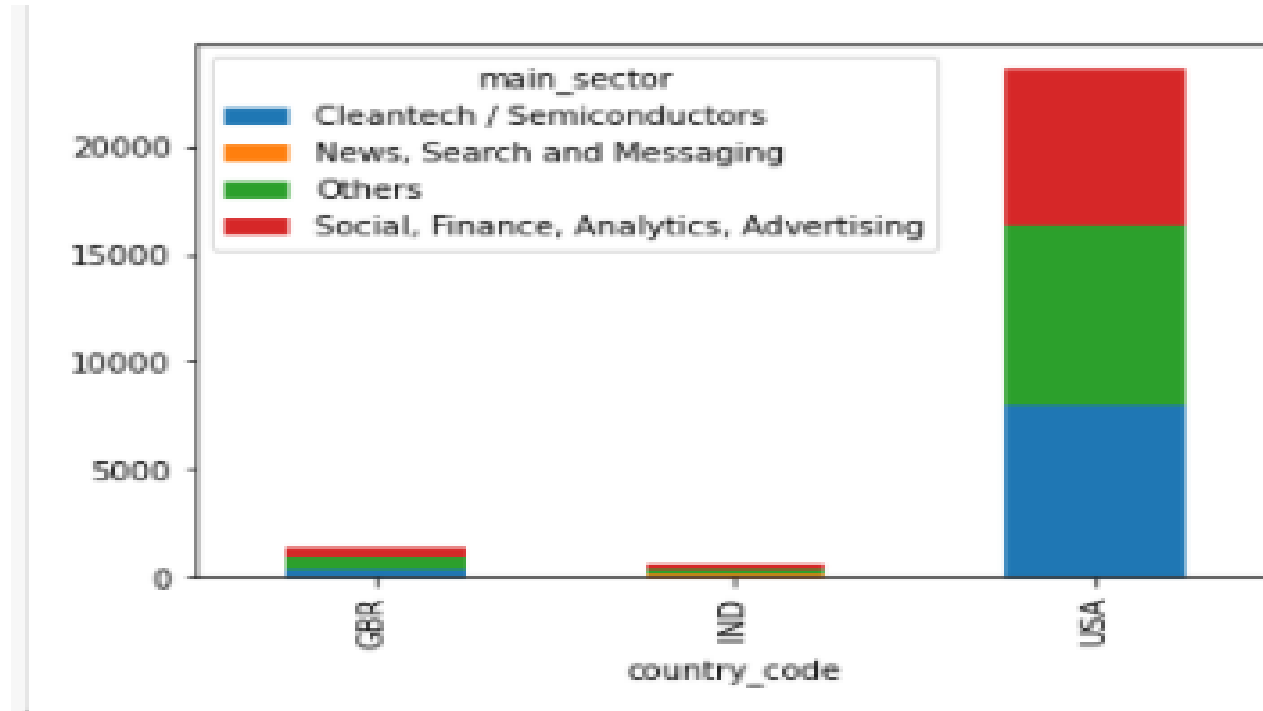
Plot 2



By the above figure , in the venture investment type USA , IND, GBR are the most English speaking countries to invest, remaining all countries in the top 9 is non English speaking countries

Top 3 countries most invested sectors

Plot 3



In the top countries **USA, GBR , IND** mentioned are the top most sectors that to invested

Conclusions of Spark Funds Investment Analysis

Investment Type: **Venture**

Top 3 English speaking countries are : **USA, GBR , IND**

Top sectors to Invest in **USA**:

1. Others
2. Social, Finance, Analytics, Advertising
3. Cleantech / Semiconductors

Top sectors to Invest in **GBR**:

1. Others
2. Social, Finance, Analytics, Advertising
3. Cleantech / Semiconductors

Top sectors to Invest in **IND**:

1. Others
2. Social, Finance, Analytics, Advertising
3. News, Search and Messaging