## INVESTMENT ASSIGNMENT SUBMISSION

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- The assignment is designed to help an AMC (Asset Management Company) Spark Funds to make investments in few companies globally.
- > Spark Funds has two constraints based on which they want to make the investment.
- ▶ The first one being , the AMC wants to invest only 5 to 15 Million USD per round of investment.
- The second constraint is that the AMC wishes to only invest in English Speaking Countries because of the ease of communication.
- We have found out the best Funding Type, Countries and the Sectors to help the AMC take the right decision for their investment.
- ► The best funding type between 5 to 15 Million USD was found, based on which these were segregated into the best countries.
- For the countries we have again segregated them to English and Non English Speaking countries, from which only top 3 English speaking countries were taken for our analysis. Since Spark Funds is interested only in the English Speaking countries.
- Based on the Top 3 English Speaking countries, we have segregated the Sub Sectors for them into the Eight Main Sectors.
- The Top 3 sectors and the companies which received the highest investment for a sector was found for each country.



## Problem solving methodology



Data Collection from the Datasets for Companies and Rounds 2 Data

Converting the Multiple Sub Categories into Main Category in the data frame Creating 3 separate data frames for the 3 English Speaking Countries where the Investment Amount is between 5 to 15 Million USD and Best Fund Type

Cleaning the Data in both the loaded datasets

Finding the Top 3 English Speaking Countries based on the Amount of Investment and the best Identified Fund Type Finding the count and sum of investments for each main sector for each of the 3 countries. From this finding the top invested companies

Merging Both the datasets to a single data frame

Identifying the best Fund Type in the range of 5 to 15 million USD Plotting Visualization so that the CEO of the company can take the best decisions on where to invest.





- Spark Funds is interested in 4 of the Investment Types for their Investment: Venture, Seed, Angel and Private Equity
- ► The data related to the above Investment Types were taken from the original data frame in order to do the analysis
- The average investment received for each of the investment types were calculated to check which gives a better investment type according to the Spark Funds Investment Constraint.
- From the average calculation we could find that the average amount of investment received for Venture, Seed, Angel and Private Equity are 11.74, 0.75, 0.97 and 73.62 Million USD respectively.
- We could find it is better for Spark Funds to go with the Venture Funding Type for their investments as 11.74 Million USD falls within the threshold of 5 to 15 Million USD.





- Based on the Funding Type we will now find the countries which have received the highest amount of investment.
- We can find from the belong image the Top 9 countries that received the highest investment amount for the Venture Funding Type

raised amount usd

	raiseu_amount_usu
country_code	
USA	4.225108e+11
CHN	3.983542e+10
GBR	2.024563e+10
IND	1.439186e+10
CAN	9.583332e+09
FRA	7.259537e+09
ISR	6.907515e+09
DEU	6.346960e+09
JPN	3.363677e+09

Since Spark Funds is interested only in the English speaking countries, the Top 3 English speaking countries from the above table is USA, GBR and IND





- We have divided the sub sectors to 8 main sectors for the Funding Type Venture, Investment Amount between 5 Million and 15 Million USD and for the Top 3 English Speaking Countries
- We have found out from the above how many number of investments and the sum of investments received for the 8 main sectors.
- Further we have found the top 3 sectors with the highest number of investments.
- We further found out the companies which received the highest amount of investment based on the top 3 sectors
- The below image shows the count of investments for different sectors for the top 3 countries

USA Sector Wise Investment Count	2054
Others	2951
Social, Finance, Analytics, Advertising	2714
Cleantech / Semiconductors	2350
News, Search and Messaging	1583
Health	909
Manufacturing	799
Entertainment	591
Automotive & Sports	167
Blanks	86

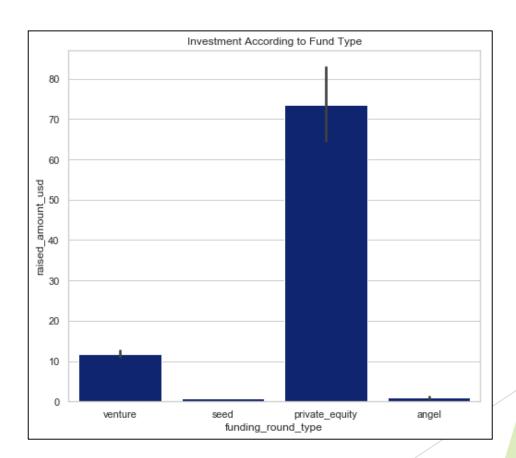
GBR Sector Wise Investment Count	
Others	147
Social, Finance, Analytics, Advertising	133
Cleantech / Semiconductors	130
News, Search and Messaging	73
Entertainment	56
Manufacturing	42
Health	24
Automotive & Sports	16
Blanks	7

IND Sector Wise Investment Count	
Others	110
Social, Finance, Analytics, Advertising	60
News, Search and Messaging	52
Entertainment	33
Manufacturing	21
Cleantech / Semiconductors	20
Health	19
Automotive & Sports	13
Blanks	2





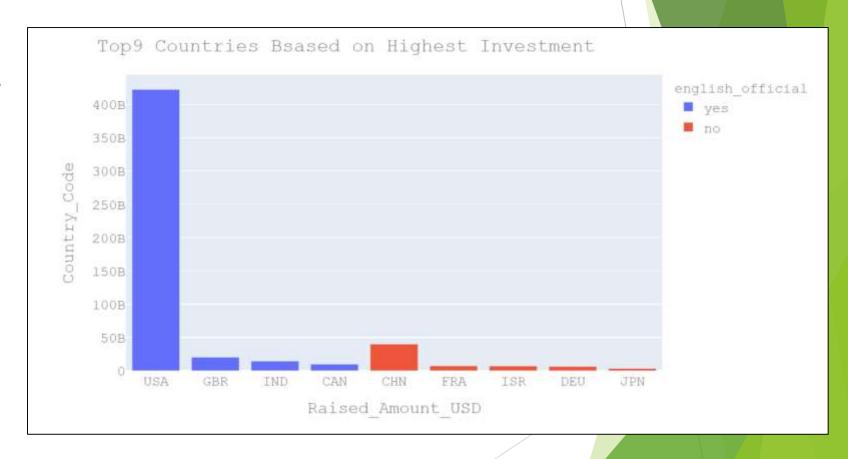
 From this plot we can observe that the Venture Funding Type Falls between 5 and 15 Million USD and hence this the suitable investment type for Spark Funds







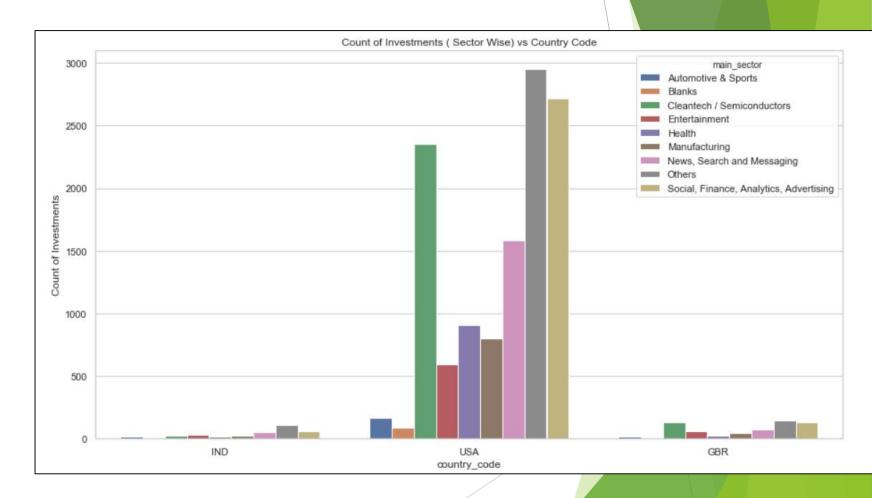
This plot shows the Top 9
 countries based on the highest
 investment and the English
 Speaking Countries. The ones
 highlighted in blue are the
 English speaking countries







 From the below plot we can see the sectors which large number of investments for the top 3 English speaking countries







- ▶ We can come to below conclusions from our analysis.
- Venture Type Funding the best Investment Type for Spark Funds
- ▶ USA, GBR and IND are the top 3 English speaking countries where maximum amount is invested.
- Others is the main sector where maximum number of investments are made across all the 3 countries
- Almost 195 Companies, 7 Companies, 15 Companies have received the highest amount of investment in the others sector for USA, GBR and IND respectively.