

INVESTMENT CASE ANALYSIS, OBSERVATIONS AND CONCLUSIONS.

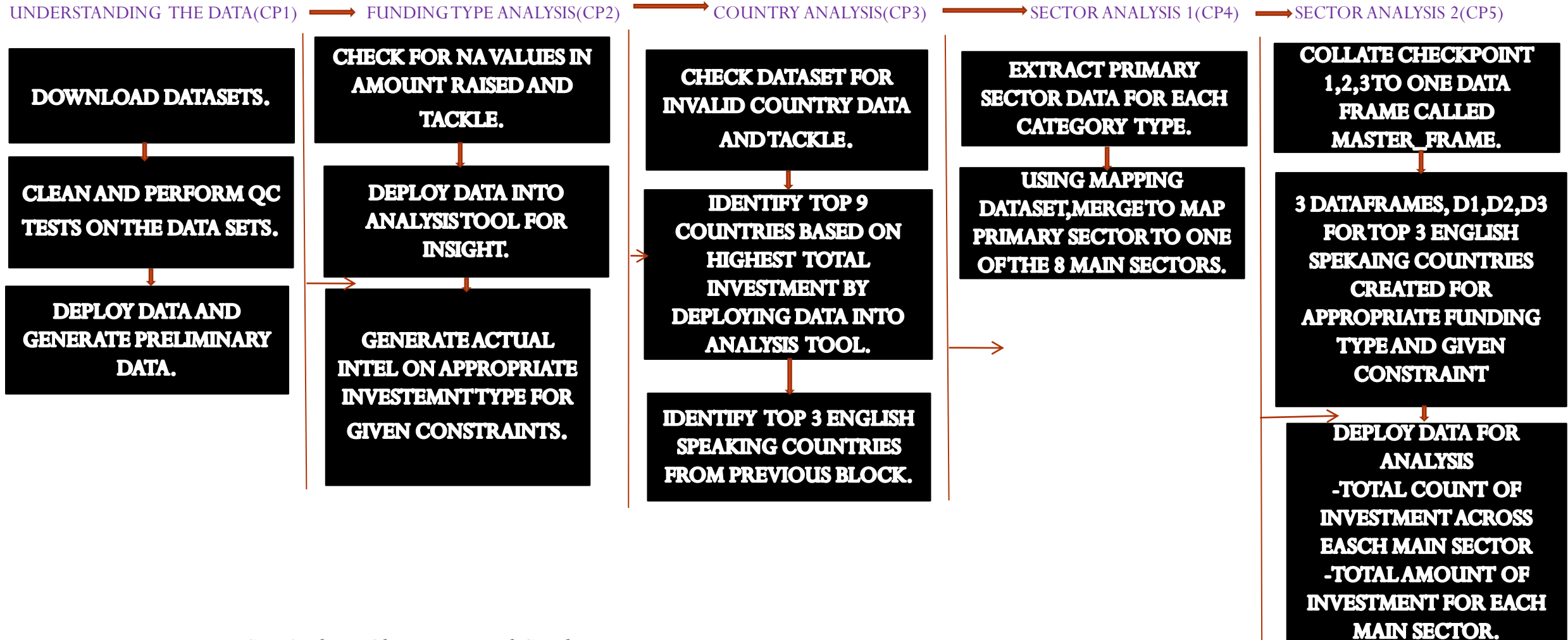
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OBJECTIVES.

The task presented to us was to provide insights, observations and conclusions on investment opportunities that could be undertaken by our enterprise. Based upon the minor constraints for investments that were conveyed to us i.e. *invested amount should be between 5 to 15 million USD per round of investment* and *investments should only be primarily English speaking nations for ease of communication*, we aim to perform a thorough analysis and generate actionable intelligence which will be enumerated ahead.

FLOW CHART ENCOMPASSING ENTIRE PROCESS.



UNDERSTANDING THE DATA(CHECKPOINT 1)

The first and largely the most time consuming process is understanding the data provided ,with relation to the business objectives articulated when the task was designed and subsequently preparing said data appropriately for analysis in such a way that the process is as unencumbered and seamless as possible. On completing the above mentioned, we were able to generate some initial insights from the datasets provided that proved they were uncorrupted.

- The number of unique companies present in rounds2 dataset = 66368
- The number of unique companies present in the companies dataset =66368

As the count of both the datasets revealed that the number of unique variables in both are the same, we determined that the given datasets are uncorrupted and ready for deployment for further required analysis.

Funding type analysis(checkpoint 2)

The next step was to determine the appropriate funding type for Spark fund based on the given constraints and conditions provided when the task was designed. After deciding to ignore the NA values present in the dataset and to leave them as they were, we were able to deploy the data for analysis. The following were our findings-

- Average funding amount of venture type = 11748949 USD
- Average funding amount of angel type = 958694 USD
- Average funding amount of seed type = 719818 USD
- Average funding amount of private equity type = 73308593 USD
- Considering that Spark Funds wants to invest between **5 to 15 million USD** per investment round, the most suitable investment type would a **VENTURE** type.

Country analysis(checkpoint 3)

The next step was to determine the countries where Spark Funds can invest based on the constraint given i.e. *the countries should be receiving the highest amount of funding in the funding type that has been deemed most appropriate for Spark fund* and *that the countries should have majorly English speaking populations for ease of communications*. On deployment of data, the following was the observation-

- Top English speaking country USA(United States)
- Second English speaking country GBR(United Kingdom)
- Third English speaking country IND(India)

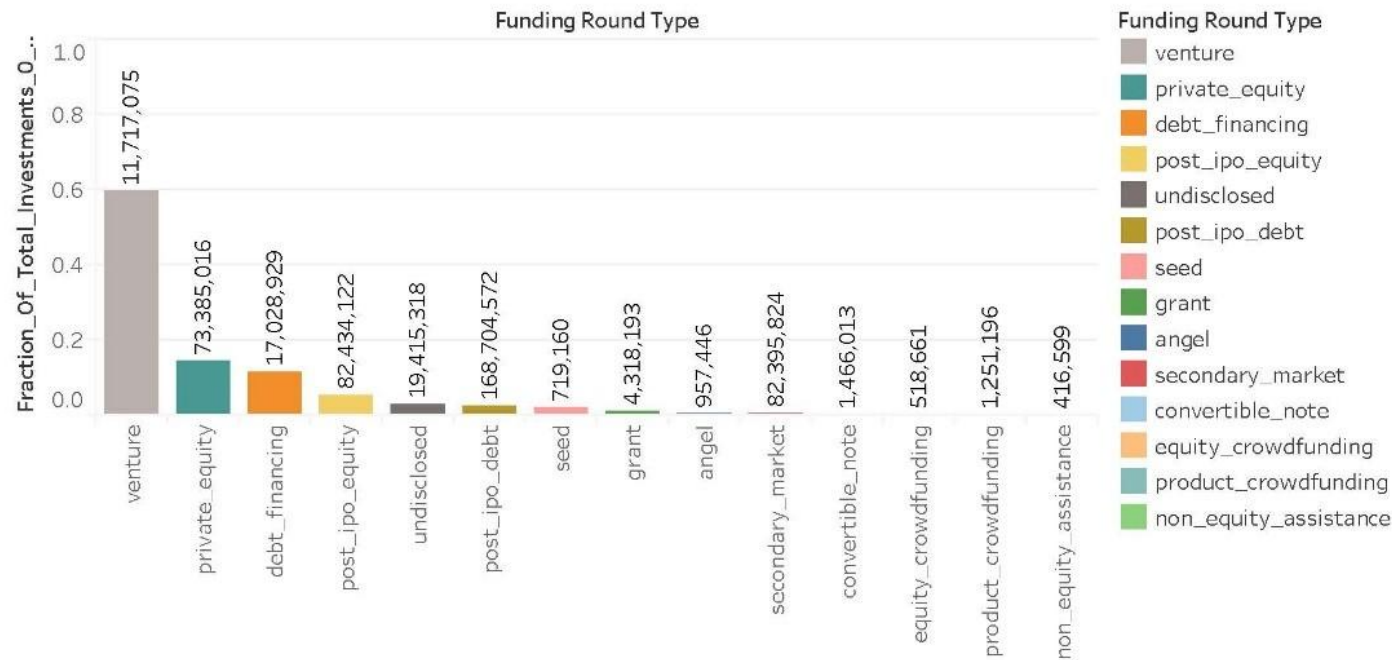
Sector analysis 1&2(checkpoint 4&5)

The final step in the analysis process for the case given by Sparks Fund was to conduct a sector analysis based on The investment type chosen and the country and the funding amount constraint given. Based on the Observations at this stage, a final recommendation can made to Sparks Fund. The following is the observation

	C1(USA)	C2(GBR)	C3(IND)
Total number of Investments (count).	12064	621	328
Total amount of investment (USD).	107766584223	5379078691	2949543602
Top Sector name (no. of investment-wise).	Others	Others	Others
Number of investments in top sector.	2950	147	110
For top sector count-wise, which company received the highest investment?	/organization/virtustream	/organization/electric-cloud	/organization/firstcry-com

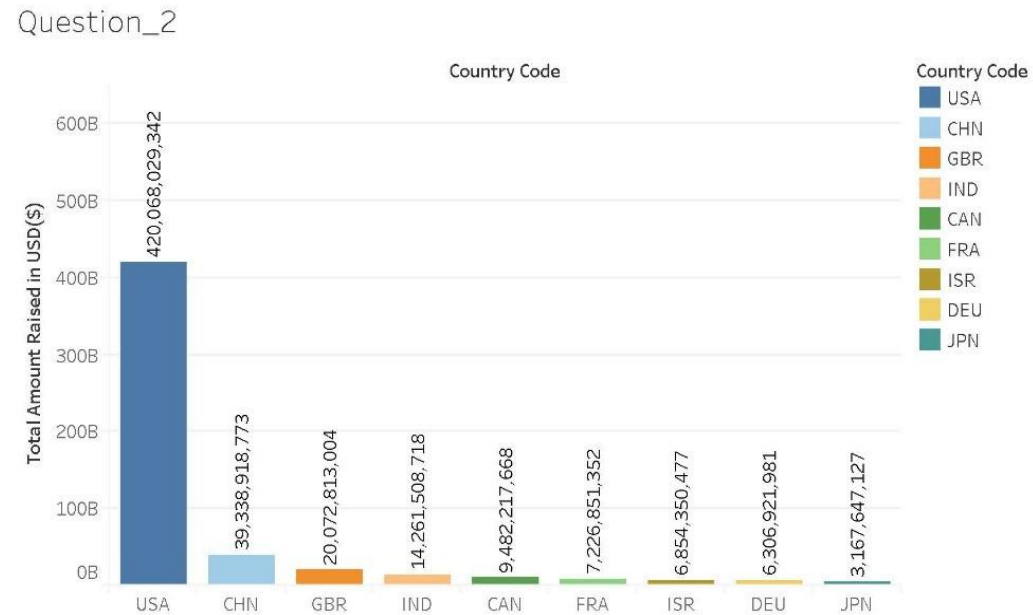
Plot for funding round analysis.

Question_1



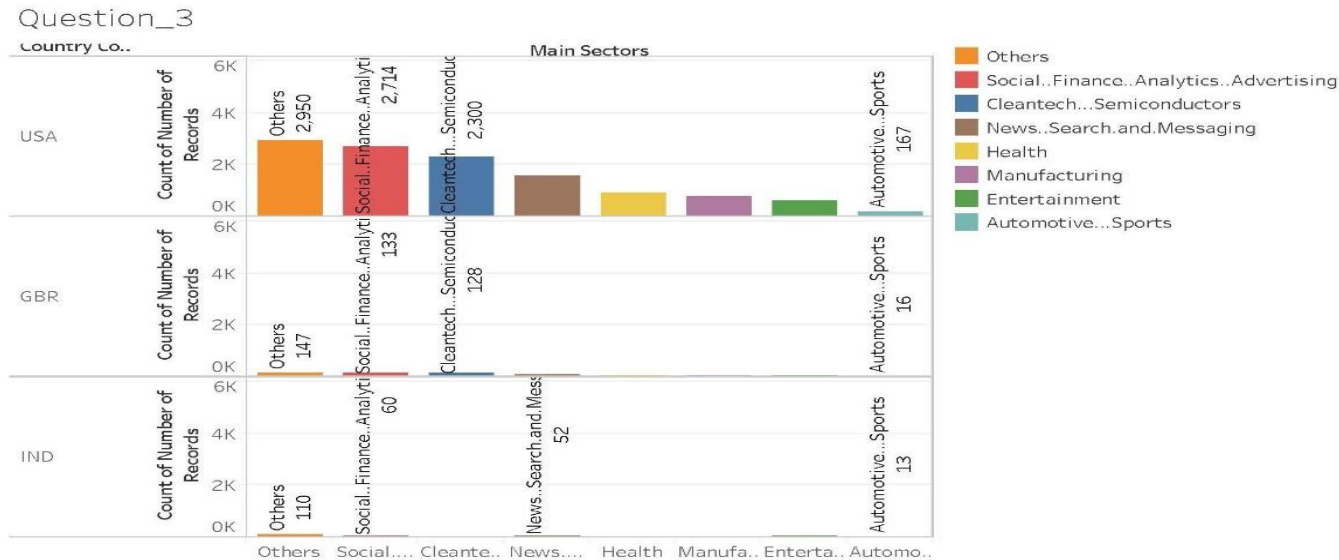
Plot of “FractionofTotalInvestments” for Each “Funding_Round_Type”. Color shows Details about “Funding_Round_Type”. The marks are labelled by Average of “Total Amount Raised in USD(\$)”. As we can See, the “Venture” type of investment is in the Range of “ 5 to 15 million” of budget Allocated by “Sparks Funds”.

Plot for country analysis.



Plot of “Total Amount Raised in USD(\$)” and the “country code” for Which it has been raised. Color shows Details about the “Country Code”. The marks Labelled by “Total Amount Raised in USD(\$). The data is filtered on “Funding_RoundType”, which keeps “Venture”. Since “China” is a Non English speaking country, We have to exclude it from out observations. Also we have removed the “NULL” entry from The observation.

Plot for sector analysis.



Plot of count of “Number of Records” for each “Main Sectors” broken down by “Country Code”. Color shows the details about “Main Sectors”. The Marks are labelled by “Main Sectors”. The data is Filtered on “Funding Round Type”, which keeps “venture”. Also the “Raised_Fund_Amount_USD” Has been kept between “5-15M” as needed by “Sparks Funds”. This has been accomplished by filtering on Data frame. Hiding “NA” values.

As seen in the plot given above, the top 3 sectors are

- 1) Others.
- 2) Social..Finance..Analytics..Advertising.
- 3) Cleantech..Semiconductors.

Conclusion

Based upon the information that was provided to us in the given data sets, the investment plan and constraints of Sparks Fund, we were able to perform an exhaustive analysis upon which we were able to provide the firm with actionable intelligence about the type of investment it should prefer, the countries with majorly English speaking populations it can make the said investments and the sectors in which it can invest. Our final conclusion given all conditions and constraints are as follows.

PARAMETER TO BE EXTRAPOLATED.	RESULT
Considering that Spark Funds wants to invest between 5 to 15 million USD per investment round, the investment type is the most suitable for them is-	Venture
Top English speaking country	USA (United States)
Top Sector name (no. of investment-wise)	Others
Number of investments in top sector (3)	2950
For point 3 (top sector count-wise), which company received the highest investment?	/organization/virtustream