

INVESTMENT ASSIGNMENT

SUBMISSION

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SPARK FUNDS company wants 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'.

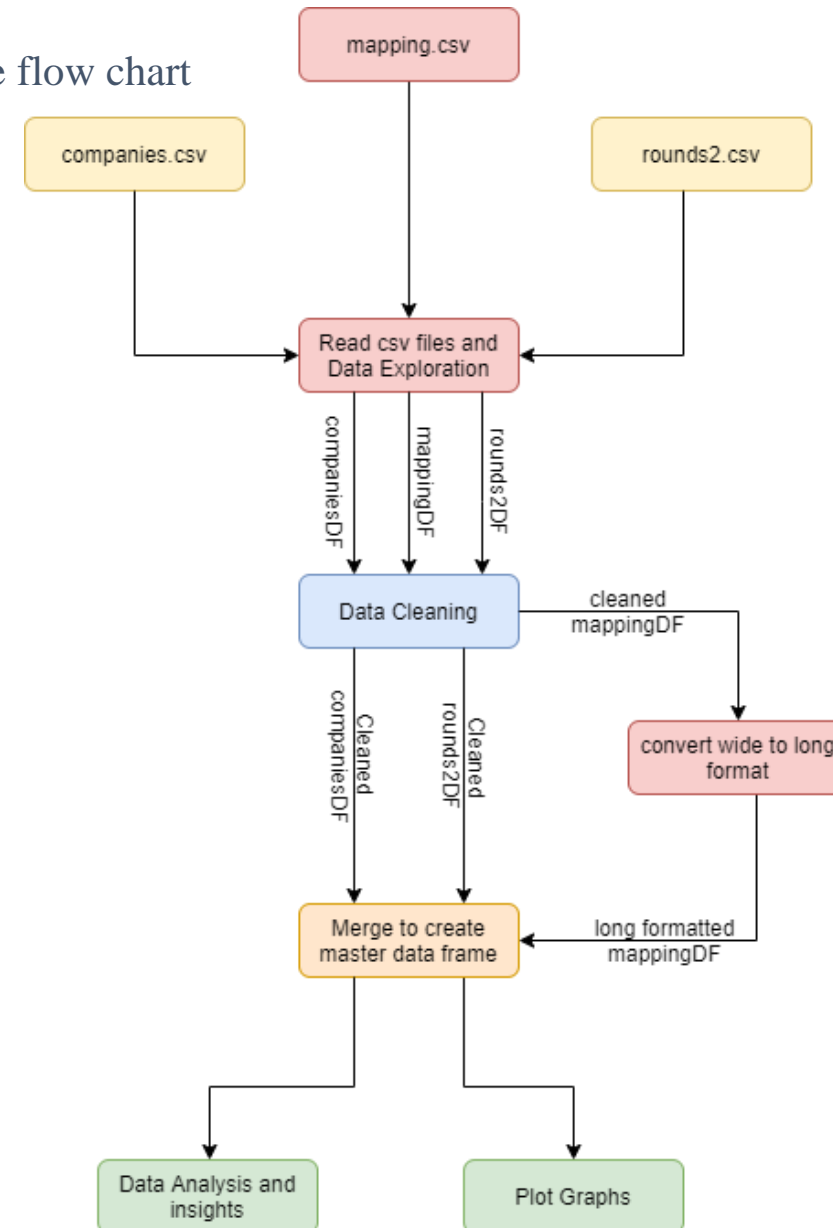
❖ **Spark Funds has two minor constraints for investments:**

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

Datasets:

1. companies.csv – contain company information like name, country code etc.,
2. Rounds2.csv – Contains investment type and invested amount in usd
3. Mapping.csv - Maps the numerous category names in the companies table (such 3D printing, aerospace, agriculture, etc.) to eight broad sector names

Use flow chart



Representative Values of Investments for Each Funding Types

| Sl.No | Questions | Answer |
|-------|---|---------------------------|
| 1 | Representative funding amount of venture type | 5000000 (5 million usd) |
| 2 | Representative funding amount of angel type | 414906 (0.41 million usd) |
| 3 | Representative funding amount of seed type | 300000 (0.3 million usd) |
| 4 | Representative funding amount of private equity type | 20000000 (20 million usd) |
| 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 |

Analyzing the Top 3 English- Speaking Countries

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

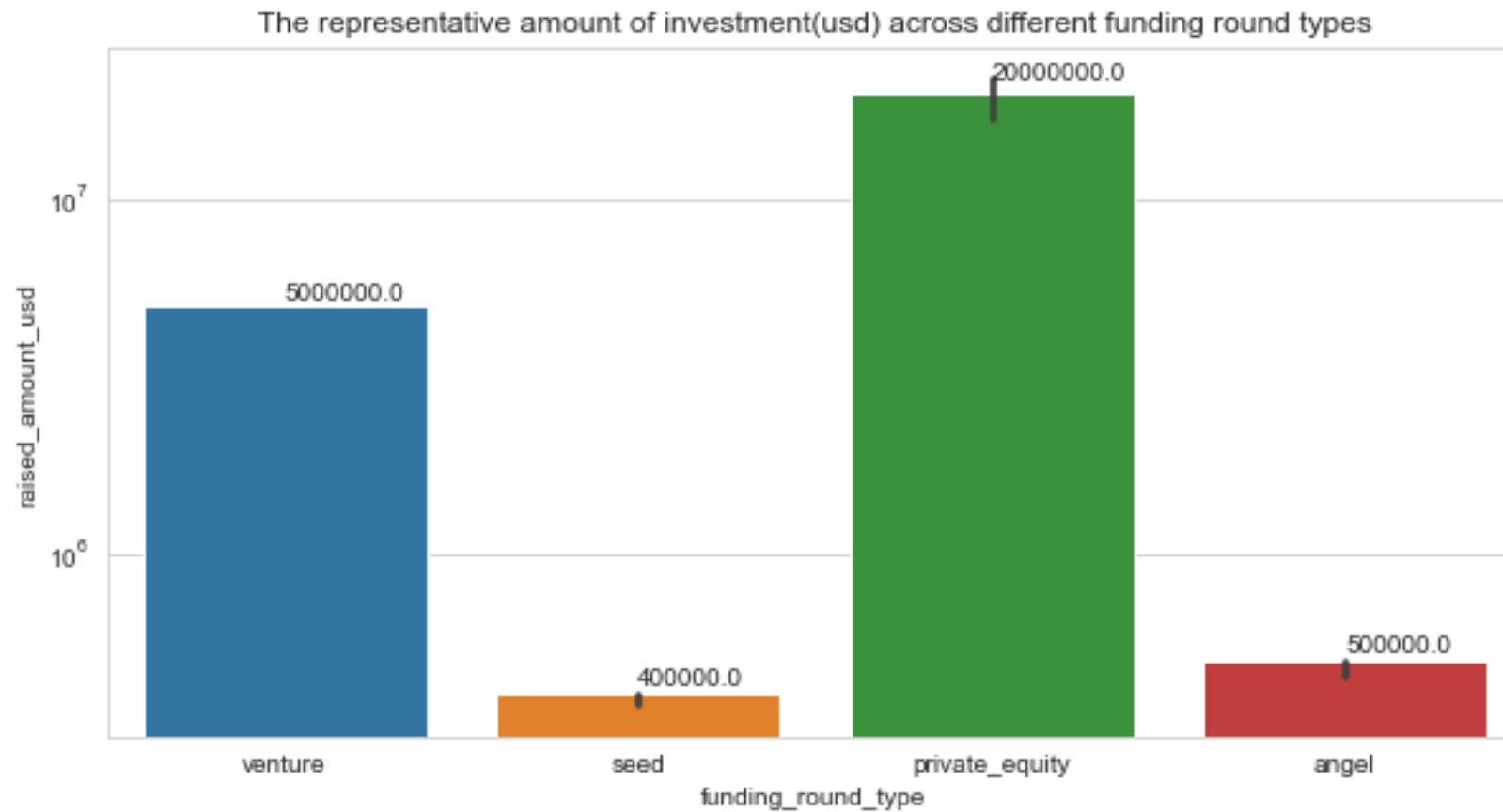
| Questions | Answers |
|---------------------------------|---------|
| Top English-speaking country | USA |
| Second English speaking country | GBR |
| Third English speaking country | IND |

Sector-wise Investment Analysis

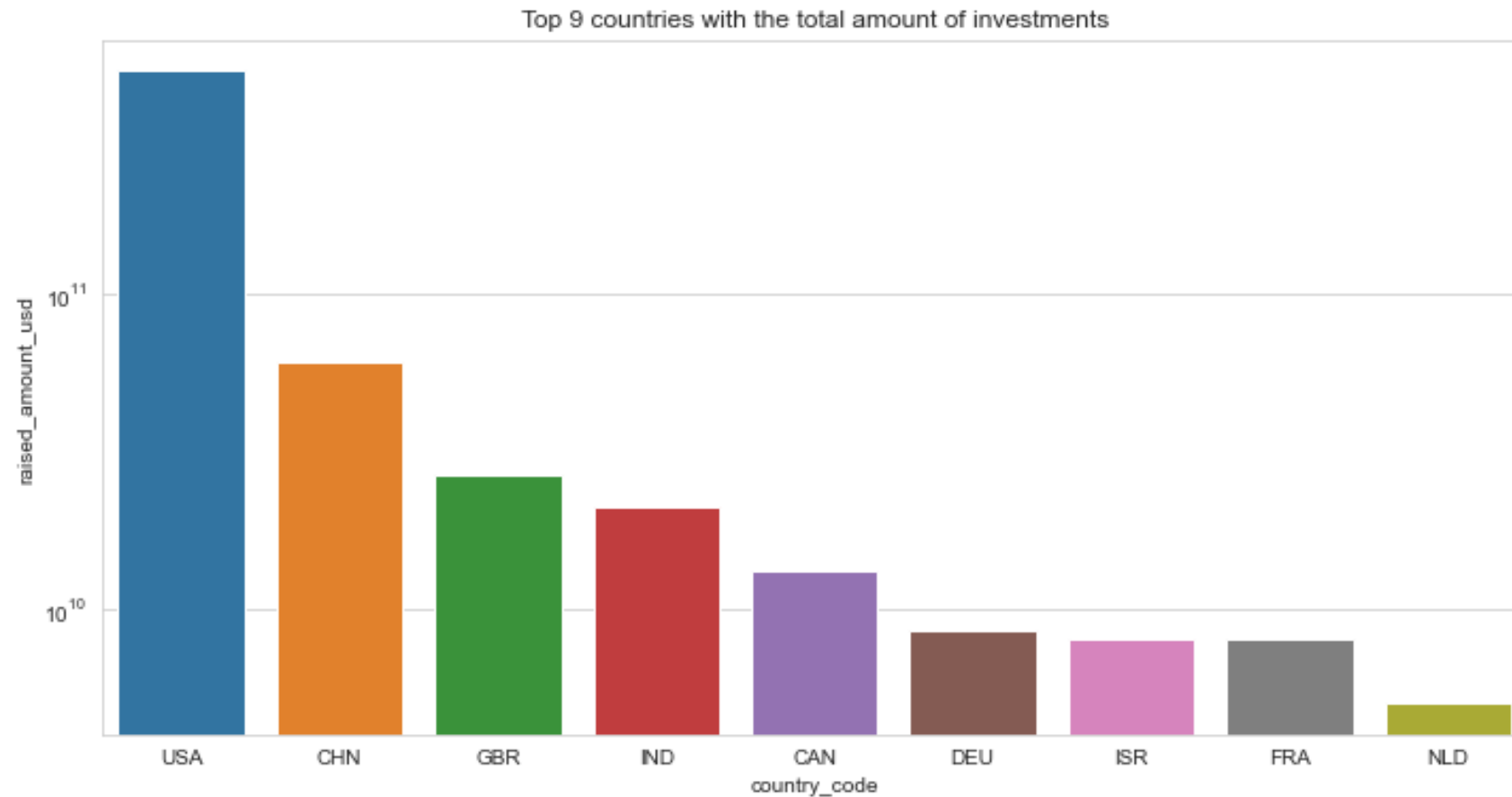
Sector analysis: Understanding the distribution of investments across the eight main sectors. ('Automotive & Sports', 'Cleantech / Semiconductors', 'Entertainment', 'Health', 'Manufacturing', 'News, Search and Messaging', 'Others', 'Social, Finance, Analytics, Advertising')

| Questions | C1 | C2 | C3 |
|---|---|---|--|
| Total number of Investments (count) | 11577 | 607 | 309 |
| Total amount of investment (USD) | 1.03234E+11 | 5275401698 | 2762137552 |
| Top Sector name (no. of investment-wise) | Others | Others | Others |
| Second Sector name (no. of investment-wise) | Cleantech / Semiconductors | Cleantech / Semiconductors | News, Search and Messaging |
| Third Sector name (no. of investment-wise) | Social, Finance, Analytics, Advertising | Social, Finance, Analytics, Advertising | Social, Finance, Analytics, Advertising |
| Number of investments in top sector (3) | 3014 | 149 | 113 |
| Number of investments in second sector (4) | 2408 | 130 | 53 |
| Number of investments in third sector (5) | 1979 | 103 | 34 |
| For point 3 (top sector count-wise), which company received the highest investment? | /organization/virtustream | /organization/electric-cloud | /organization/firstcry-com |
| For point 4 (second best sector count-wise), which company received the highest investment? | /organization/biodesix | /organization/eusa-pharma | /organization/gupshup-technology-india-pvt-ltd |

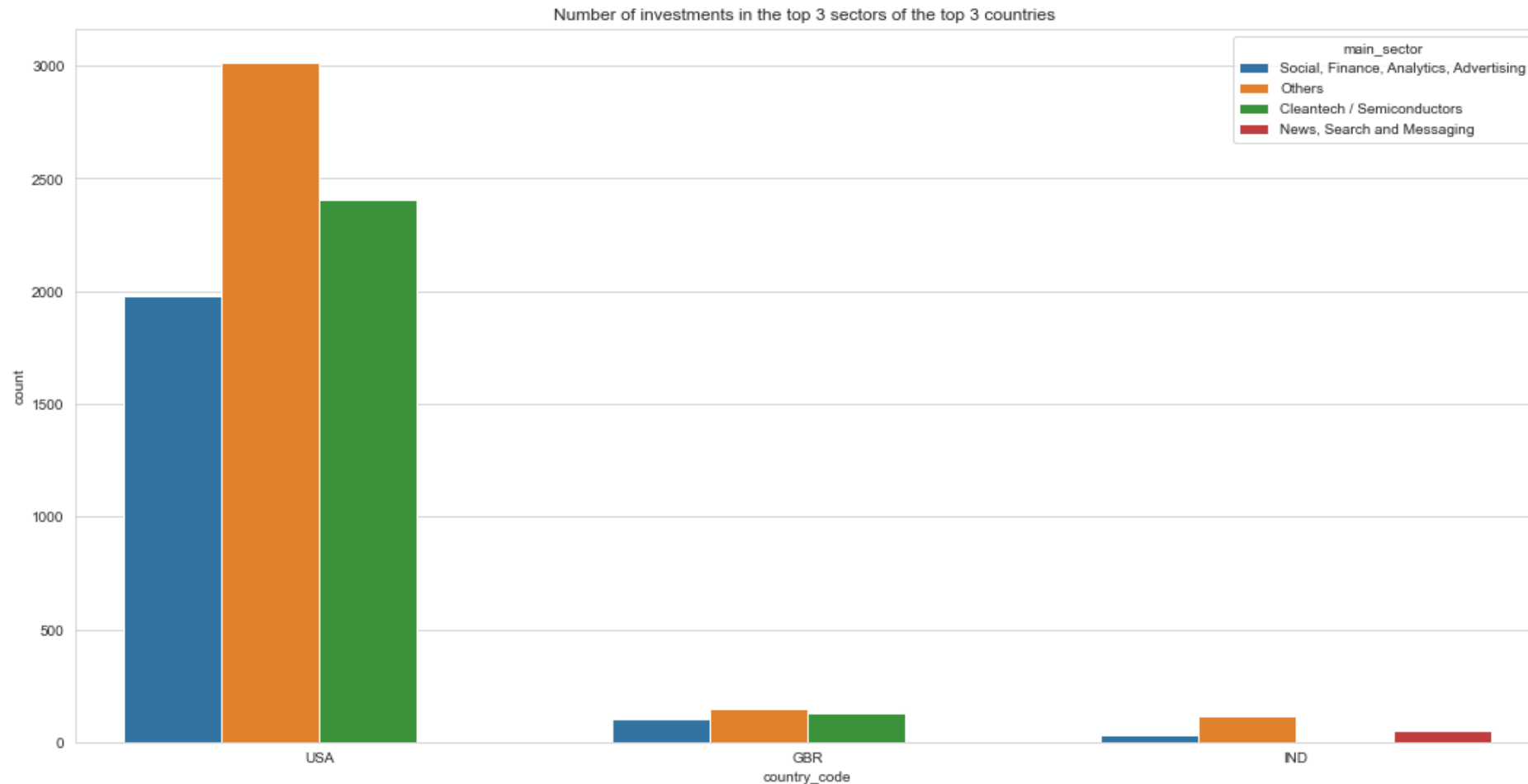
Plot 1: plot showing the **representative amount** of investment in each funding type



Plot 2: A plot showing the **top 9 countries** against the **total amount of investments** of funding type FT.



Plot 3: plot showing the **number of investments** in the **top 3 sectors** of the **top 3 countries** on one chart (for the chosen investment type FT)



- ✓ Among the four funding types (venture, angel, seed, and private equity) chosen by SPARK FUNDS, ‘**VENTURE**’ funding type satisfies its first constraint (**5M-15M USD**).
- ✓ According to SPARK FUNDS’s second constraint top 3 English-speaking countries are “**USA**”, “**GBR**” and “**IND**”
- ✓ SPARK FUNDS can invest in below top main sectors in each country
 - **USA and GBR top 3 main sectors**
 1. Others
 2. Cleantech / Semiconductors
 3. Social, Finance, Analytics, Advertising
 - **INDIA top 3 main sectors**
 1. Others
 2. News, Search and Messaging
 3. Social, Finance, Analytics, Advertising
- ✓ Among the top 3 countries, **USA has the greatest number of investments** made in each main sector, hence it would be beneficial if large portion of the investment amount be invested in USA main sectors.