



INVESTMENT ASSIGNMENT SUBMISSION

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Project Description and Objectives :

- Project Brief :

You work for Spark Funds, an [asset management company](#). 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.

- Business and Data Understanding :

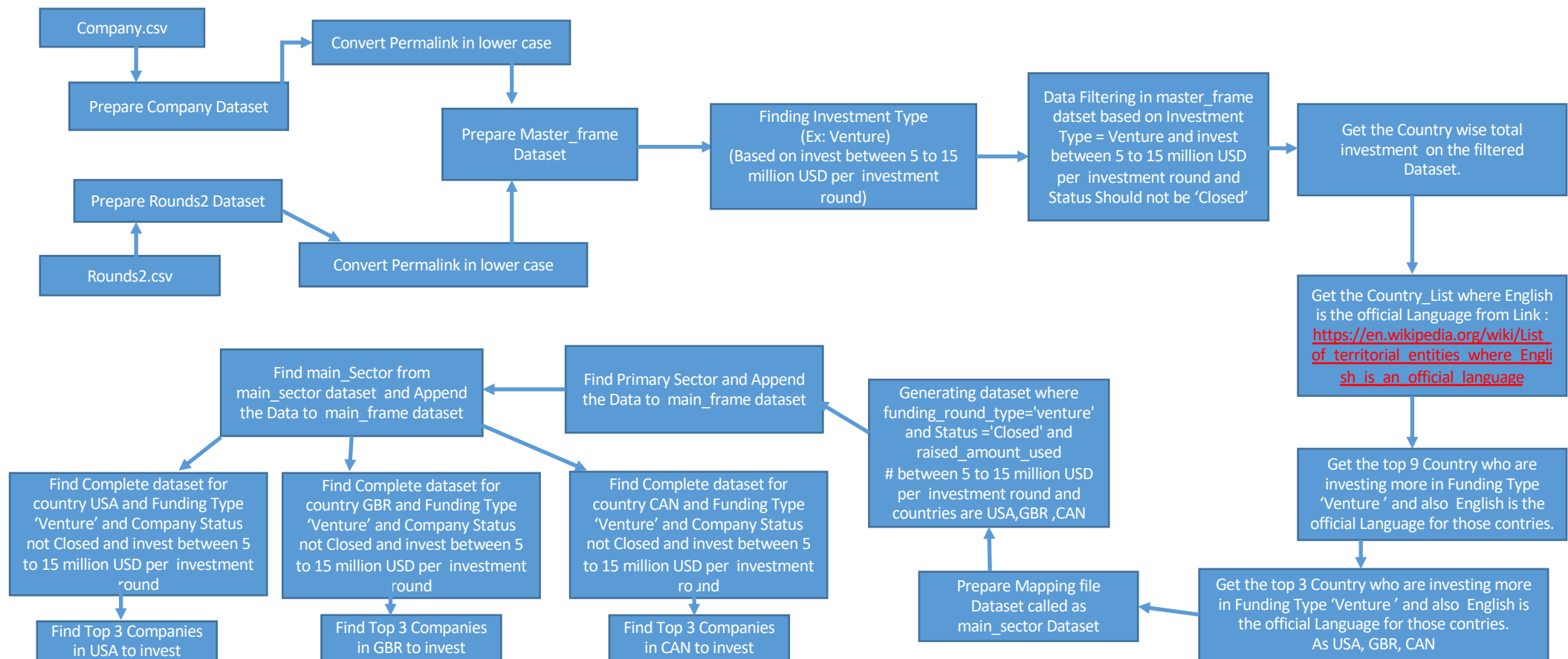
Spark Funds has two minor constraints for investments:

- 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.

- Business objectives :

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'.

Problem solving methodology :





Investment type analysis : Venture

```
funding_round_type
angel          958891.772586952080018818378448486328
convertible_note 1457326.690228690160438418388366699219
debt_financing  17043526.023046992719173431396484375000
equity_crowdfunding 539113.336326530668884515762329101562
grant          4312659.915958451107144355773925781250
non_equity_assistance 411203.054794520547147840261459350586
post_ipo_debt  168704571.822368413209915161132812500000
post_ipo_equity 82182493.871019110083580017089843750000
private_equity  73341461.740051686763763427734375000000
product_crowdfunding 1363131.069948186632245779037475585938
secondary_market 79649630.099999994039535522460937500000
seed           719892.471930122119374573230743408203
undisclosed     19252764.342188488692045211791992187500
venture        11749430.940401043742895126342773437500
Name: raised_amount_usd, dtype: float64
```

Here Only **Venture** Investment Type
is falling under the Condition :
Spark Funds wants to invest
between **5 to 15 million USD** per
round of investment .

Top 3 Countries where each countries received maximum investment on Funding Type Venture and also english is one of the official languages in that country.

Sector analysis : Top 3 sectors for each top 3 Countries (USA , GBR , CAN)

```
Others                2239
Cleantech / Semiconductors 1826
Social, Finance, Analytics, Advertising 1474
News, Search and Messaging 1170
Health                709
Manufacturing         635
Entertainment         417
Automotive & Sports   134
Name: main_sector, dtype: int64
```

```
Others                120
Cleantech / Semiconductors 111
Social, Finance, Analytics, Advertising 86
News, Search and Messaging 59
Entertainment         43
Manufacturing         36
Health                22
Automotive & Sports   14
Name: main_sector, dtype: int64
```

```
Others                91
Cleantech / Semiconductors 87
Social, Finance, Analytics, Advertising 44
News, Search and Messaging 39
Manufacturing         27
Health                15
Entertainment         12
Automotive & Sports   1
Name: main_sector, dtype: int64
```

For USA

Others Sector :

	name	homepage_url	category_list	status
-	SpiderCloud Wireless	http://www.spidercloud.com	Enterprise Software	operating

Cleantech / Semiconductors :

permalink	name	homepage_url	category_list
tion/intermolecular	Intermolecular	http://www.intermolecular.com	Semiconductors

For GBR

Others Sector :

MyOptique Group	http://myoptiquegroup.com	E-Commerce	operating
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Cleantech / Semiconductors :

3000000	/organization/onyvax	Onyvox	http://www.onyvax.com	Biotechnology	operating
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For CAN

Others Sector :

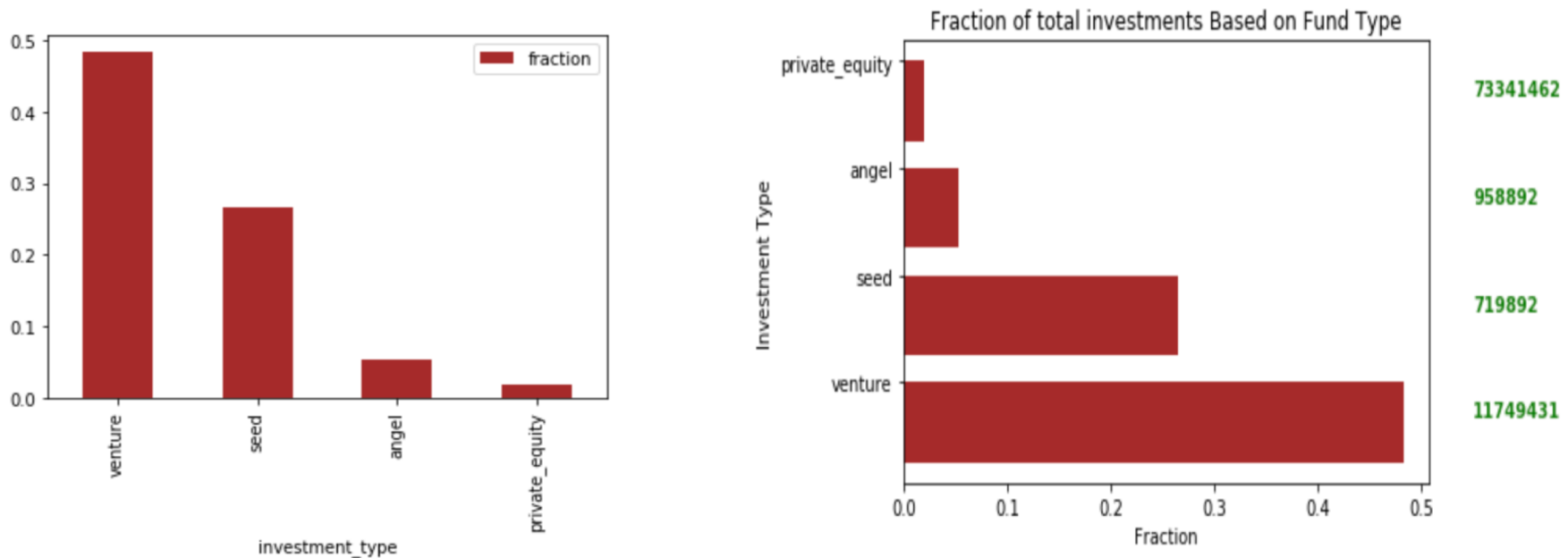
name	homepage_url	category_list	status
NewStep Networks	NaN	Software	operating

Cleantech / Semiconductors :

Fresco Microchip	http://www.frescomicrochip.com	Semiconductors	operating
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<Results>

Plot 1 : A plot showing the fraction of total investments (globally) in angel, venture, seed, and private equity, and the average amount of investment in each funding type. This chart should make it clear that a certain funding type **Venture** is best suited for Spark Funds.

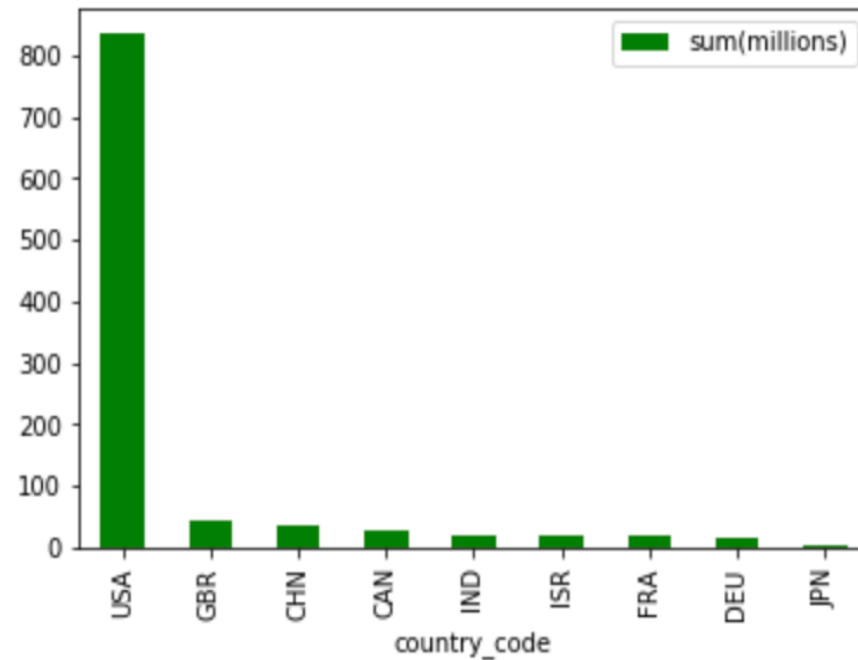


<Results>

Plot 2 : Plot showing the top 9 countries against the total amount of investments of funding type **Venture**. This should make the top 3 countries (Country 1, Country 2, and Country 3) very clear.

- 1.Country 1: USA
- 2.Country 2: GBR
- 3.Country 3: CAN

Note : As For CHN English is not official Language.

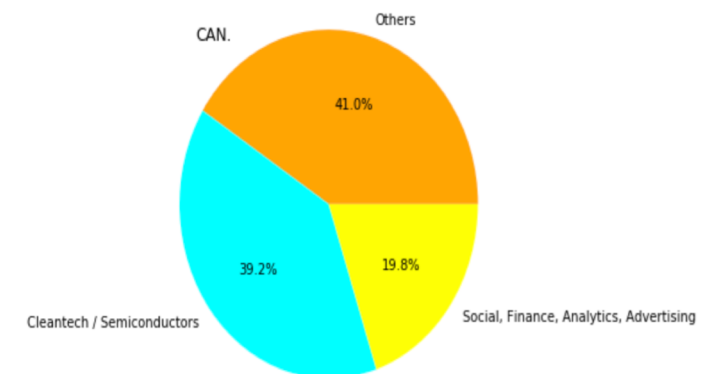
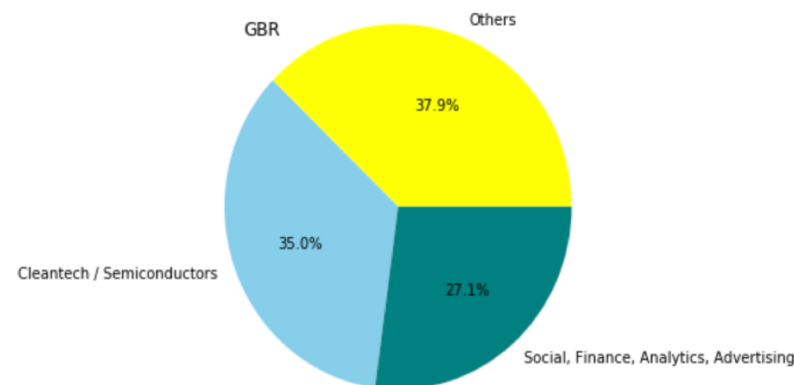
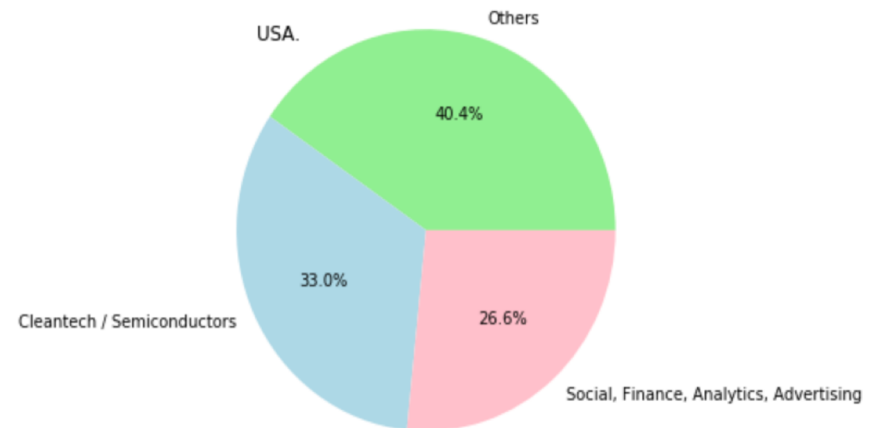


<Results>

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

Top 3 Countries and Top 3 Sectors in each Country:

- 1) USA
 - Others
 - Cleantech/Semiconductors
 - Social, Finance, Analytics, Advertising
- 2) GBR
 - Others
 - Cleantech/Semiconductors
 - Social, Finance, Analytics, Advertising
- 3) CAN
 - Others
 - Cleantech/Semiconductors
 - Social, Finance, Analytics, Advertising





Conclusion :

Best Companies to invest :

Top 1st Country : USA

In USA Top 2 Companies to invest :

SpiderCloud Wireless (Sector : Others)

Intermolecular (Sector : Cleantech/Semiconductors)

Top 2nd Country : GBR

In GBR Top 2 Companies to invest :

MyOptique Group (Sector : Others)

Onyvax (Sector : Cleantech/Semiconductors)

Top 3rd Country : CAN

In CAN Top 2 Companies to invest :

NewStep Networks (Sector : Others)

Fresco Microchip (Sector : Cleantech/Semiconductors)