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# Project Brief



#### **Business Objectives**

- Identify the best
  - ✓ Sectors
  - ✓ Countries
  - Suitable investment type for making investments.
- Spark Funds wants to invest where most other investors are investing.

#### **Constrains**

- Invest between 5 to 15 millionUSD per round of investment
- Invest only in Englishspeaking countries



#### **Data Analysis Goals**

- Investment type analysis -Understand investments in the venture, seed, angel, private equity categories.
- Country analysis Understand which countries have had the most investments in the past.
- Sector analysis Understand the distribution of investments across the eight main sectors.



#### **Approach**

- Case Study is structured into checkpoints to perform
  - ✓ Data Cleansing
  - ✓ Funding Type Analysis
  - ✓ Country Analysis
  - √ Sector Analysis
  - ✓ Plots to support decisions.

#### **Deliverables**

- One zip file containing
  - √ R Code
  - Excel File (results of checkpoints)
  - ✓ Presentation in PDF format





# Approach - Problem Solving

## **Import**

Data Consolidation from various sources and format.

- ➤ Companies.txt
- > Rounds2.csv
- ➤ Mapping.csv
- ➤ Country.txt

## **Tidy**

Organizing the data –

- ➤ Data cleansing
- Handling missing values, nulls, typos etc
- ⇒ Spreading, Gathering and Separation steps
- ➤ Tidyvers package used.

## **Transformation**

Data Transformation to create the master data frames used for analysis and visual plots.

- Merging, joining various cleansed data.
- Filtering, arranging, mutating
- > Tidyvers package used.

## **Analysis**

Exploratory data analysis – Question the data to perform

- > Investment Type analysis.
- > Country analysis
- > Sector Analysis

## **Plotting**

Using Tableau to create graphs that aid in decision making.

Communicate inferences, understanding with supporting analysis and graphs to decision making audience and any larger audience.

#### **Tools used**

- RStudio for Import, Tidy, Transformation and Analysis
- Tableau for Analysis and Plotting





# Investment Type Analysis

Total funds, average funding, % count by funding type



% of Total Raised Amou.	
0.62%	78.30%

Total funds and Average funding raised by Funding type

Funding Round	Raised Amount Usd	Avg. Raised	
venture	\$590,126,216,876	\$11,748,949	Abc
private_equity	\$141,925,436,105	\$73,308,593	Abc
seed	\$16,989,864,181	\$719,818	Abc
angel	\$4,659,255,123	\$958,694	Abc

- ✓ Venture type has attracted 590 B USD.
- ✓ Average of 11.745 M USD per investment. Falls within the constrains of 5 – 15 M USD.





# Country Analysis

### Top 9 countires vs Total Investment by Venture



## Top 9 countires vs Total Investment by Venture

Country Co	Raised Amount Usd	
USA	420,068,029,342	Abc
CHN	39,338,918,773	Abc
GBR	20,072,813,004	Abc
IND	14,261,508,718	Abc
CAN	9,482,217,668	Abc
FRA	7,226,851,352	Abc
ISR	6,854,350,477	Abc
DEU	6,306,921,981	Abc
JPN	3,167,647,127	Abc

Map based on Longitude (generated) and Latitude (generated). The marks are labeled by Country Code and sum of Raised Amount Usd. The data is filtered on Funding Round Type and Primary sector. The Funding Round Type filter keeps venture. The Primary sector filter keeps 587 of 716 members. The view is filtered on Country Code, which keeps 9 of 135 members.





# Checkpoint 6 - plot 1

**Funding Type vs 1.** Avg Investement in each Funding Types **and vs 2.** Percentage of investment in each type



Average of Raised Amount Usd and % of Total Raised Amount Usd for each Funding Round Type. Color shows details about Funding Round Type. For pane Average of Raised Amount Usd: The marks are labeled by average of Raised Amount Usd. For pane % of Total Raised Amount Usd: The marks are labeled by % of Total Raised Amount Usd and sum of Raised Amount Usd. The view is filtered on Funding Round Type, which keeps angel, private\_equity, seed and venture.



Funding Round Type

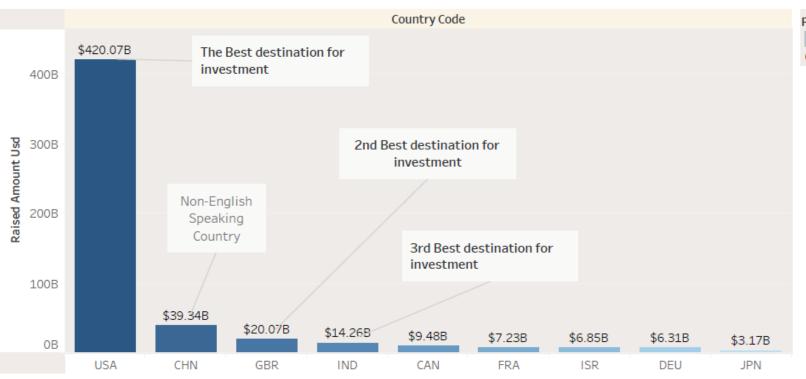
- ✓ Venture type has attracted 590 B USD.
- √ 78% of funding by Venture type
- ✓ Average of 11.745 M USD per investment. Falls within the constrains of 5 – 15 M USD.





# Checkpoint 6 - plot 2

#### Top 9 countires vs Total Investment by Venture



Sum of Raised Amount Usd for each Country Code. Color shows Percentile of Raised Amount Usd. The marks are labeled by sum of Raised Amount Usd. The data is filtered on Funding Round Type and Primary sector. The Funding Round Type filter keeps venture. The Primary sector filter keeps 587 of 716 members. The view is filtered on Country Code, which keeps 9 members.

Percentile of Raised A		
0.0%	100.0%	

Top 3 English speaking country invested by venture funds type







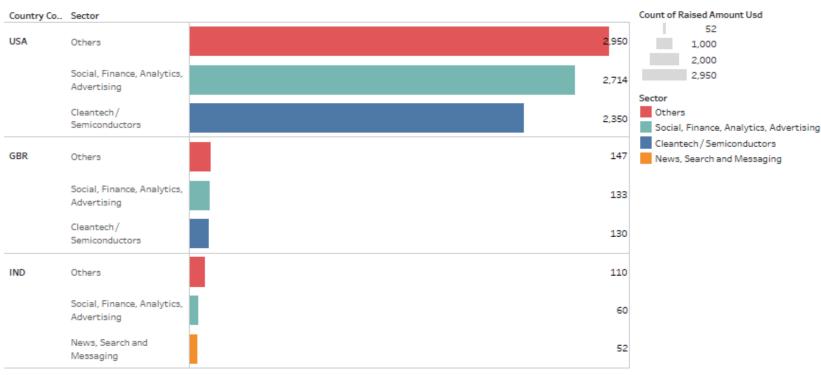
India





# Checkpoint 6 - plot 3 aka Sector Analysis

Country vs Top Sector Based on Venture Investment

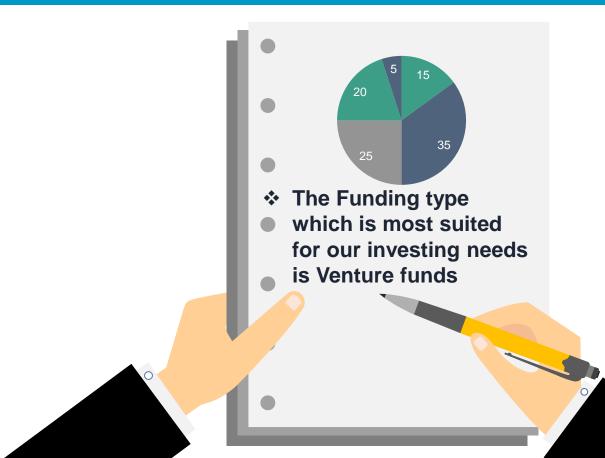


Count of Raised Amount Usd broken down by Country Code and Sector. Color shows details about Sector. Size shows count of Raised Amount Usd. The marks are labeled by count of Raised Amount Usd. The data is filtered on Funding Round Type and RSDAMOUNTBETWEN5MT015M. The Funding Round Type filter keeps venture. The RSDAMOUNTBETWEN5MT015M filter ranges from 1 to 1. The view is filtered on Country Code, Sector and Exclusions (Country Code, Sector). The Country Code filter keeps GBR, IND and USA. The Sector filter keeps Cleantech / Semiconductors, Entertainment, News, Search and Messaging, Others and Social, Finance, Analytics, Advertising. The Exclusions (Country Code, Sector) filter keeps 691 members.





## **INFERENCE**



- Top 3 English speaking countries to invest are -
  - United States of America
  - Great Britain
  - India
- ❖ Best sectors to invest in are -
  - ✓ Others, Social Media and Clean tech & Semiconductors for USA and UK
  - ✓ Others, 'Social finance, analytics & advertising', 'News, Search & Messaging' for India



# Thank You.

