***Solution Sheet for the project***

|  |  |
| --- | --- |
| How many unique companies are present in rounds2 ? | **66290** |
| How many unique companies are present in companies? | **66290** |
| In the companies data frame, which column can be used as the unique key for each company? Write the name of the column. | permalink |
| Are there any companies in the rounds2 ﬁle which are not present in companies? Answer yes or no: Y/N | No |
| Merge the two data frames so that all variables (columns) in the companies frame are added to the rounds2 data frame. Name the merged frame master\_frame. How many observations are present in master\_frame? | Rows: **115200** Entries,  0 to 115200  Data columns:(total 13 column) |

Table 1.1: Understand the Data Set

***Choosing the company type***

**Stage of Business – Private Equity vs Venture Capital vs Seed Investors**

As the names imply, “seed” or “angel” investors are usually the first investors in a business, followed by venture capital firms (think “new venture”), and finally, private equity firms.

**Angel** or seed investors participate in businesses that are so early-stage they may be pre-revenue with few to no customers at all.  They could simply have a well-developed business plan, prototype, beta test, minimum viable product (“MVP”), or be at a similar level of development.  Some of the businesses, however, may have [revenue](https://corporatefinanceinstitute.com/resources/knowledge/accounting/sales-revenue/) or even [cash flow](https://corporatefinanceinstitute.com/resources/knowledge/valuation/cash-flow-guide-ebitda-cf-fcf-ffcf/) (it’s not to say that they *can’t* have those things – it’s just that they frequently don’t).

**Venture capital (VC)** firms typically invest in businesses that have proven their revenue model, or if not, at least have a sizable and rapidly-growing customer base with a revenue strategy in clear sight.

**Private equity (PE)** firms invest when a company has gone beyond generating revenue and developed profitable margins, stable cash flow, and is able to service a significant amount of debt.  To learn more about the various types of cash flow, read our [ultimate cash flow guide](https://corporatefinanceinstitute.com/resources/knowledge/valuation/cash-flow-guide-ebitda-cf-fcf-ffcf/).

**Size of Investment – Private Equity vs Venture Capital / Seed Investors**

**Seed and angel** investors really have no minimum size, but typically it’s at least $10,000 to $100,000 and can be as high as a few million in some cases. Y Combinator, for example, typically [invests $120,000 for a 7% ownership stake](http://blog.ycombinator.com/the-new-deal/) in companies accepted into its accelerator program.

**Venture capital** firms can invest a wide range of values depending on the industry, company, and various other factors.  As a rule of thumb, you can assume venture capital deals are, on average, anywhere between $1 million and $20 million.

**Private equity** firms, being later-stage investors, typically do larger deals and the range can be enormous depending on the types of business.  There are boutique, mid-market private equity firms that will do $5 million deals, while massive global firms such as Blackstone and KKR do billion dollar deals.  The range is so wide it’s almost meaningless to put an average on it.

### Level of Risk

This part is fairly straightforward. The earlier the stage the business is in, the higher the risk (as a generalization – there are exceptions, of course).

One thing that can skew level of risk is leverage and financial engineering.  While [Top Private Equity firms](https://corporatefinanceinstitute.com/resources/careers/companies/top-ten-private-equity-pe-firms/)may typically invest in lower risk enterprises, if they use excessive leverage in acquiring a sizeable equity interest, then the investments can become very high-risk.

### Return Targets

All three classes of investors are trying to earn the highest possible risk-adjusted rates of return. That goes without saying.

Given the different risk profiles though, we can observe that, on average, seed investments can return 100x or more when they work (they often go to zero), while later stage VC returns may be more like 10x (fewer of them go to zero). PE firms seek 20% or higher IRRs (only a very small number of investments go to zero).

Source:: <https://corporatefinanceinstitute.com/resources/careers/jobs/private-equity-vs-venture-capital-vs-angel-seed/>

Conclusion::::::::::

*As on comparing representative values of all the strategies and analysing the above details it is found that that the venture has*

11899609.197

*MILLION USD*

*With the count of (*46748)

*Which is the best between 5million to 15 million USD.*

*Therefore,*

*The company should chose the Venture funding type which is most suitable for them.*

Table 3.1: Analysing the Top 3 English-Speaking Countries

|  |  |
| --- | --- |
| 1. Top English-speaking country | *United States (USA)* |
| 2. Second English-speaking country | *United Kingdom (GBR)* |
| 3. Third English-speaking country | *India (IND)* |

Table 5.1 : Sector-wise Investment Analysis

|  |  |  |  |
| --- | --- | --- | --- |
|  | ***Country 1*** | ***Country 2*** | ***Country 3*** |
| 1. Total number of investments (count) | ***10482*** | ***550*** | ***291*** |
| 2. Total amount of investment (USD) | ***93914840098.0*** | ***4803654985.0*** | ***2611667552.0*** |
| 3. Top sector (based on count of investments) | ***Others*** | ***Others*** | ***Others*** |
| 4. Second-best sector (based on count of investments) | ***Cleantech / Semiconductors*** | ***Cleantech / Semiconductors*** | ***News, Search and Messaging*** |
| 5. Third-best sector (based on count of investments) | ***Social, Finance, Analytics, Advertising*** | ***Social, Finance, Analytics, Advertising*** | ***Entertainment*** |
| 6. Number of investments in the top sector (refer to point 3) | ***2735*** | ***137*** | ***102*** |
| 7. Number of investments in the second-best sector (refer to point 4) | ***2146*** | ***114*** | ***51*** |
| 8. Number of investments in the third-best sector (refer to point 5) | ***1817*** | ***95*** | ***32*** |
| 9. For the top sector count-wise (point 3), which company received the highest investment? | ***virtustream*** | ***electriccloud*** | ***firstcrycom*** |
| 10. For the second-best sector count-wise (point 4), which company received the highest investment? | ***biodesix*** | ***eusapharma*** | ***gupshuptechnologyindiapvtltd*** |