### 1.

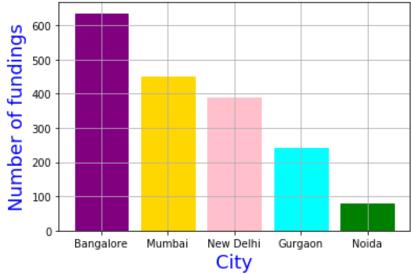
Your Friend has developed the Product and he wants to establish the product startup and he is searching for a perfect location where getting the investment has a high chance. But due to its financial restriction, he can choose only between three locations - Bangalore, Mumbai, and NCR. As a friend, you want to help your friend deciding the location. NCR include Gurgaon, Noida and New Delhi. Find the location where the most number of funding is done. That means, find the location where startups has received funding maximum number of times. Plot the bar graph between location and number of funding. Take city name "Delhi" as "New Delhi". Check the case-sensitiveness of cities also. That means, at some place instead of "Bangalore", "bangalore" is given. Take city name as "Bangalore". For few startups multiple locations are given, one Indian and one Foreign. Consider the startup if any one of the city lies in given locations.

Answer: Bangalore 635

Code explanation: First of all we have removes all the nan values from the dataset occurring in the column-"CityLocation". Then we went on to correcting the anomalies in city names and the CityLocation column. After the all the errors being corrected, we traversed through the dataset and stored the frequency of each city in a dictionary. Then, from the dictionary we found the city with maximum funding and thus got an answer. We have also plotted a graph of the cities and their funding.

Graph explanation: After plotting a bar graph with location against the number of respective funding, we see that the trend of the graph decreases in the order (Bangalore, Mumbai, New Delhi, Gurgaon, Noida). From the graph we can make out that Bangalore has the highest number of funding. Therefore, the most favourable location for a new start-up would be Bangalore.

## Location and their number of fundings



Even after trying for so many times, your friend's startup could not find the investment. So you decided to take this matter in your hand and try to find the list of investors who probably can invest in your friend's startup. Your list will increase the chance of your friend startup getting some initial investment by contacting these investors. Find the top 5 investors who have invested maximum number of times (consider repeat investments in one company also). In a startup, multiple investors might have invested. So consider each investor for that startup. Ignore undisclosed investors.

## Answer: Sequoia Capital 64 Accel Partners 53 Kalaari Capital 44 SAIF Partners 41 Indian Angel Network 40

Code explanation: After removing all the nan values from the dataset occurring in the column "InvestorsN ame", we traversed through the dataset and stored all the investor names (including the ones separates by commas) into a list. We then traversed the list to find the frequency of each investor. We stored the frequency along with the investor name in a dictionary. From the dictionary we found out the top five investors. Lastly, we plotted a bar graph of the top five investors against their frequency of funding.

Graph explanation: since the graph decreases in the order(Sequoria Capital, Accel Partners, Kalaari Capital, SAIF Partners, Indian Angle Network), we infer that the investor "Sequoria Capital" has done funding for the maximum number of time. So, for a start-up these five are the investors who can potentially invest.



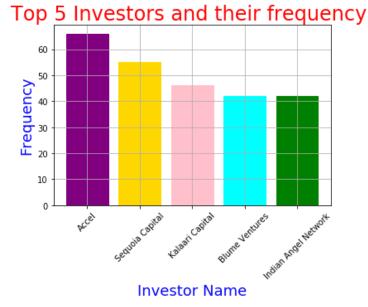
### 3.

After re-analysing the dataset you found out that some investors have invested in the same startup at different number of funding rounds. So before finalising the previous list, you want to improvise it by finding the top 5 investors who have invested in different number of startups. This list will be more helpful than your previous list in finding the investment for your friend startup. Find the top 5 investors who have invested maximum number of times in different companies. That means, if one investor has invested multiple times in one startup, count one for that company. There are many errors in startup names. Ignore correcting all, just handle the important ones - Ola, Flipkart, Oyo and Paytm.

# Answer: Accel 66 Sequoia Capital 55 Kalaari Capital 46 Blume Ventures 42 Indian Angel Network 42

Code explaination: We take all the unique investor names into a list and then traverse the list . For every investor name we append the startup names corresponding to that investor name into another list . We maintain a dictionary which has investor name as the key and the length of the list with the unique startup names as its value.

Graph Explaination: The length of the bar of the graph decreases as we move from Accel , Sequoia Capital , Kalkaari Capital and the length of the last two bars(Blume Ventures and Indian Angel Network) are equal.



Even after putting so much effort in finding the probable investors, it didn't turn out to be helpful for your friend. So you went to your investor friend to understand the situation better and your investor friend explained to you about the different Investment Types and their features. This new information will be helpful in finding the right investor. Since your friend startup is at an early stage startup, the best-suited investment type would be - Seed Funding and Crowdfunding. Find the top 5 investors who have invested in a different number of startups and their investment type is Crowdfunding or Seed Funding. Correct spelling of investment types are - "Private Equity", "Seed Funding", "Debt Funding", and "Crowd Funding". Keep an eye for any spelling mistake. You can find this by printing unique values from this column. There are many errors in startup names. Ignore correcting all, just handle the important ones - Ola, Flipkart, Oyo and Paytm.

#### Answer:

Indian Angel Network 33
Rajan Anandan 23
Mohandas Pai 20
LetsVenture 19
Rohit 19

Code explaination: We take all the unique investor names into a list and then traverse the list . For every investor name we append the startup names corresponding to that investor name into another list and also apply the condition that the Fund Type is either Seed or Crowd Funding .We maintain a dictionary which has investor name as the key and the length of the list with the unique startup names as its value.

Graph Explaination: The length of the bar of the graph decreases as we move from Indian Angel Network, Rajan Anandan, Mohandas Pai and the length of the last two bars(Blume Ventures and) are equal. These are top 5 investors who have invested in a different number of startups and their investment type is Crowdfunding or Seed Funding in descending order.





Due to your immense help, your friend startup successfully got seed funding and it is on the operational mode. Now your friend wants to expand his startup and he is looking for new investors for his startup. Now you again come as a saviour to help your friend and want to create a list of probable new new investors. Before moving forward you remember your investor friend advice that finding the investors by analysing the investment type. Since your friend startup is not in early phase it is in growth stage so the best-suited investment type is Private Equity. Find the top 5 investors who have invested in a different number of startups and their investment type is Private Equity. Correct spelling of investment types are - "Private Equity", "Seed Funding", "Debt Funding", and "Crowd Funding". Keep an eye for any spelling mistake. You can find this by printing unique values from this column. There are many errors in startup names. Ignore correcting all, just handle the important ones - Ola, Flipkart, Oyo and Paytm.

#### Answer:

Accel 52 Sequoia Capital 52 Kalaari Capital 39 Tiger Global 35 IDG 31

Code explaination: We take all the unique investor names into a list and then traverse the list . For every investor name we append the startup names corresponding to that investor name into another list and also apply the condition that the Fund Type is Private Equity. We maintain a dictionary which has investor name as the key and the length of the list with the unique startup names as its value.

Graph Explaination: The length of the bar of the graph decreases as we move from Indian Angel Network, Rajan Anandan, Mohandas Pai and the length of the last two bars(Blume Ventures and) are equal. These are top 5 investors who have invested in a different number of startups and their investment type is Private Equity in descending order.

