Explanation and Interpretation

Methodology followed for obtaining the results for each problem:

1. Convert .csv data into data frame object using pandas
2. Removing the rows containing NULL data
3. Correcting the mistakes in the names of column/entity
4. Grouping/Filtering/Sorting/Counting the data as per requirement
5. Printing the results as per required format
6. Plotting the results using Matplotlib.

Problem 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.

Interpretation of Results:
The results shows the no of funding for Mumbai, Bangalore and NCR region (New Delhi, Gurgaon and Noida). Also the Bar graph shows the no of fundings for respective locations.

Bangalore 412
Mumbai 303
New Delhi 215
Gurgaon 166
Noida 46
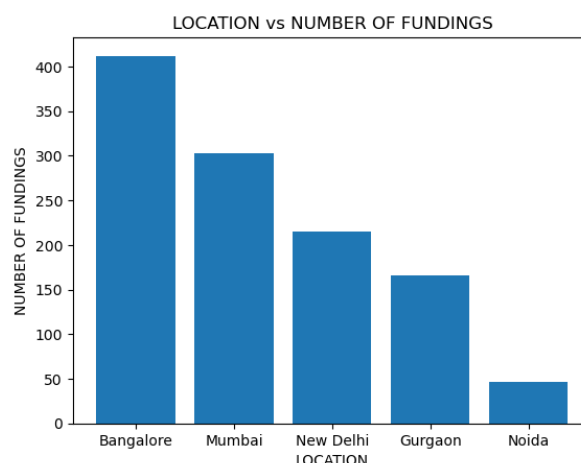
From the printed results and bar graph we can conclude that among Mumbai, Bangalore and NCR region(New Delhi, Gurgaon and Noida) Bangalore has the maximum number of fundings i.e. 412. So I will advise my friend to establish the startup in Bangalore where he has the highest chance of getting investment.
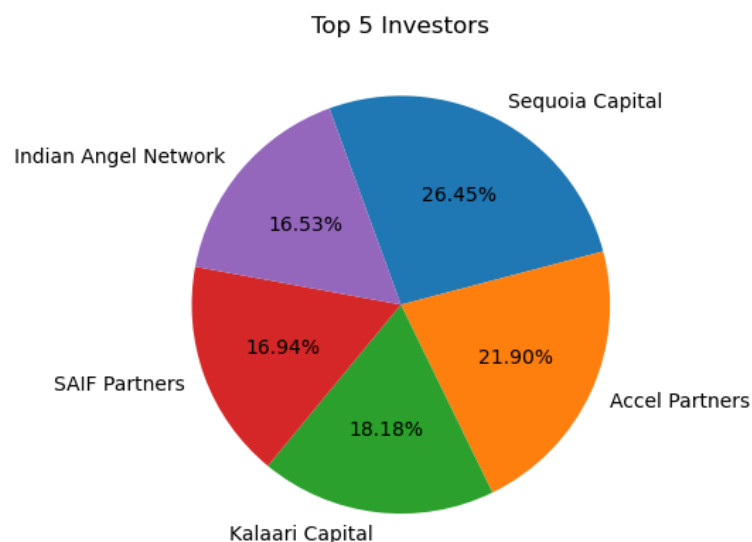

Problem 2 :

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.

Interpretation of Results:
The results shows the top five investors who probably can invest in my friend's startup. Also the Pie Graph shows these top five investors and there percent share in the total investment they make. Here as per instructions repeated investment is also included and Undisclosed Investors are neglected for the results.

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

Top 5 Investors

From the printed results and the pie chart we can conclude that for getting initial investment my friend should try to contact the above five investors.

Problem 3 :

1. 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.

Interpretation of Results : The results shows the top five investors who invested maximum number of times in different startups. Also the Bar Graph shows these top five investors and there no of investments graphically. Here, I have taken care of spelling mistakes in the name of major startups.
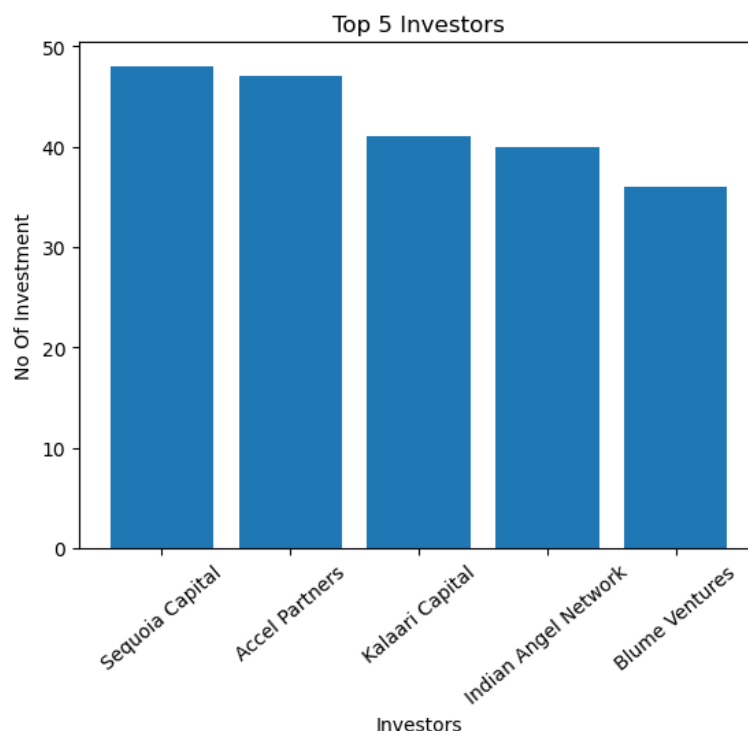
Sequoia Capital 48
Accel Partners 47
Kalaari Capital 41
Indian Angel Network 40
Blume Ventures 36

The investors who invested multiple times in the same startup is not much useful here, so for making the insights more helpful repeated investment is now neglected(investment in only different startups is considered) and Undisclosed Investors are also neglected for the results.

Problem 4 :

1. 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.

Interpretation of Results: The results shows the top five investors who invested maximum number of times in startups having their investment type Seed or Crowd Funding. Also the Bar Graph shows these top five investors and their maximum no of investments graphically. Here, I have taken care of spelling mistakes in "Private Equity", "Seed Funding", "Debt Funding", and "Crowd Funding" also I have corrected the errors in startup names of major startups.
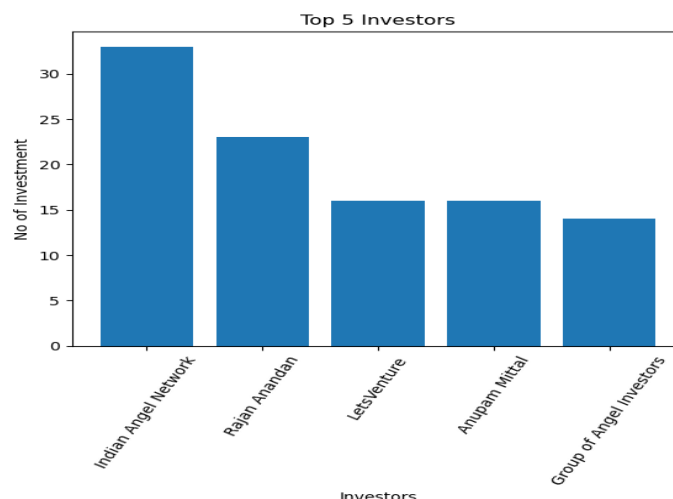
Indian Angel Network 33
Rajan Anandan 23
LetsVenture 16
Anupam Mittal 16
Group of Angel Investors 14

Because my friend is at early stage in his startup so it is very difficult to get investment easily. The best type of investment he should go with is Seed or Crowd funding. So here I have gathered the data of those investors whose investment type is crowd or seed funding. These results will surely helo my friend to find the right Investor. Now he should try to to contact these top five investors and hopefully he will get some investments.

Problem 5 :

1. 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.

Interpretation of Results: The results shows the top five investors who invested maximum number of times in startups having their investment type Private Equity. Also the Bar Graph shows these top five investors and their maximum no of investments graphically. Here, I have taken care of spelling mistakes in "Private Equity", "Seed Funding", "Debt Funding", and "Crowd Funding" also I have corrected the errors in startup names of major startups.
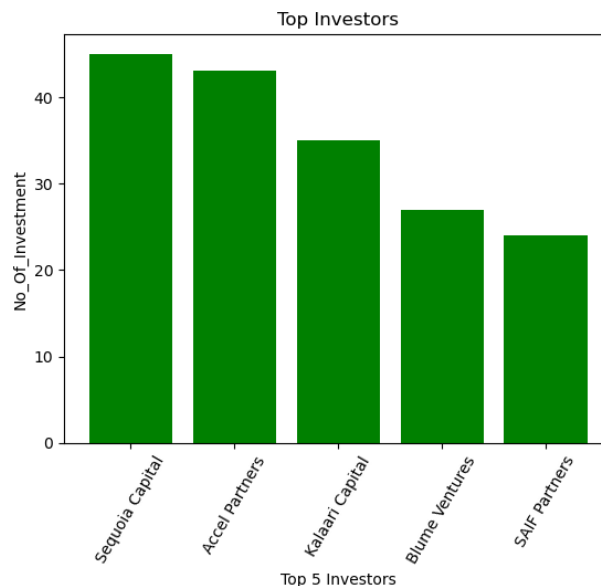
Sequoia Capital 45
Accel Partners 43
Kalaari Capital 35
Blume Ventures 27
SAIF Partners 24

My friend's startup is at growth stage now so for expanding his startup now its the right time to go with Private Equity type of investments. So here I have gathered data of top five investors whose investment type if Private Equity. These results may be the new probable investors for his startups.