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.

    Ans: As my friend does not have funding need to find the city where he can approach for funding. Based on the criteria given in the location can be Bangalore, Mumbai, NCR regions. Data set contains location with respect to the above we change filter the data w.r.t these location. Find most funded cities from the data
    Step:
    1) preprocess the data w.r.t location like case sensitive and multiple location
    2) preprocess the "AmountInUSD" column like replace "," by "" and convert the data type
    3) Filter the data w.r.t to location
    4) Group the data w.r.t location and count the number of time funding is happened for these cities
    5) Since it is just a frequency also one column is categorical and other is numerical , can plot a bar graph for top 5 cities

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.

    Ans: With respect to the question we are find the top funded cities but we don't know the investors so that we can approach for funding. Hence it is suitable to find the top investor for fundings.
    Steps:
    1) For the we are having Investor column also multiple investors for the same cities.
    2) Split the multiple investors using str.split(",") function and we can explode the column so that we can get the data at row level, Undisclosed investors is of no importance, since we don't know the name we can delete/filter the data and get the count of the investors. Select top 5 investors from the filtered data.
    Plot pie plot to get to know about the percentage of investment. Higher is the better so that we can approach for funding.

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.

Ans: Just getting to know about the top investors not helpful, For which startup they are are investing that we should know so the many investors may be invested in multiple startups, They are likely to be an investor for our products.
Steps:
1) Taken care of Ola, Flipkart with the data preprocecessing steps,
2) In the investors Name same steps is followed as per the question 2
3) Filter the records w.r.t undisclosed and group the data w.r.t investors name and and check how many time these investors invested in start up
4) Pick top 5 records and show them in the bar plot for the clarity

4. 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.

Ans: Even with the investors there will be investment at all different levels like seed Funding, crowd funding etc. for different startups. Need to identify the the top 5 investors for the startups with respect to seed funding and crowd funding
Steps:
1) Preprocess the data as we done for question 3 and filter the records with respect to investment type that is crowd funding and seed fundings
2) Do the same group by operation as mentioned in question 3 and pick the top 5 investors plot the bar graphs

5. 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.

Ans: Same as ans 4 but filter w.r.t Private Equaity and Do the same group by operation as mentioned in question 4 and pick the top 5 investors plot the bar graphs