Project Assignment 3:

Deliverables:

1. **Identify at least 3 relevant research reports about your dataset and/or specific domain**

   Domain/Dataset used: Meteorite Landings

3 relevant research reports:

a. Research report on Meteorite Landings particularly to analyze the fell and found meteorites

b. Meteorite Offers 2-Billion-Year-Old Glimpse of Mars (Research Paper on 2-billion year old meteorite that had 6000 parts per million in water content)

c. African meteorite impact craters: characteristics and geological importance. (Research Paper on Impact of craters on geological formation)

2. **Briefly *summarize* the reports, explaining how they relate to your research questions (do they duplicate/confirm your work, or differ from in it some aspect?)**

Summary:

1. Analyzing the fell and found meteorites on Earth

Their Major contribution to the study of Meteorite Landings is to

1. Analyze and visualize the meteorites on the earth based on the fall type i.e., fell or found meteorites

2. Also, to find if there is any relationship between the world population and the meteorite landings

This research is valuable to find out which parts of the world had most fell or found meteorites and why only particular parts of the world receive more meteorites than other. Also, by finding the relationship between the population and meteorite landings, we can help people from any destructions in the future.

My research question is

a. In which part of the world most Meteorites Fell/Found and what factors influence their occurrence in particular areas? Is there any trend on the fall of the Meteorite in different months?

This helps scientists to see if most meteorites are falling in any specific month and find reasons behind this occurrence through research and this differs from the above research paper as my research question helps in finding the fell or found meteorites in in different months instead of different countries.

2. *2-billion year old meteorite from Mars that had 6000 parts per million in water content*

Their major contribution to study 2-billion year old meteorite is:

1. To find water content (parts per million) in a meteorite from Mars found in Sahara desert
2. To find the age of the meteorite based on the metric 'parts per million'
3. To find if life existed in Mars if water content measured in parts per million is very high

This research is valuable because theoretically it is proved from this research that life existed on Mars at some point. But there is no exact evidence that life actually existed in Mars.

My research question is

a. On what kind of meteorite origin (if they are from Mars/ Moon/ Asteroid belt between Jupiter and Mars/ Comets) the scientists must focus on to find the history behind the building blocks of planets and life?

This can help the scientists, on what kind of meteorite origin they must mostly focus on to find the history behind the building blocks of planets and life. The research report above mostly focus on the water content to see if there is any existence of life in Mars. My research differs because many minerals found in meteorites are taken into consideration and not just water.

3. *Impact of Craters on geological formation*

Their major contribution to study impact of Craters in Africa is

1. To find if there are any changes in the geological formation because of the craters

2. To find if there is any economic importance for Africa because some craters contains oil or mineral deposits

This research is valuable because one can find how the geological formation of Africa changed over a period of time because of Craters. Also, craters have economic value if they contain mineral deposits.

My research question is

a. What is the impact of Meteorite mass (weight) on different parts of Earth?

This helps to find how big the craters are formed in different parts of the Earth based on the weight of the Meteorite and know if there are is any actual loss/ trouble to the people because of the craters. This differs from the above research paper because here the impact of craters is not just seen in Africa, but the entire world.

3. **Provide proper citations for the sources of your literature search; see https://infoguides.gmu.edu/citingdata**

Kamlakant Tripathi. Pratik Navale. (June 2018). Meteorite Landings. Norfolk, VA: researchgate.net. https://www.researchgate.net/publication/326053427_Meteorite_Landings

Carl B. Agee. (January 2013). Meteorite Offers 2-Billion-Year-Old Glimpse of Mars. New York Times. essaytown.com. https://www.essaytown.com/subjects/paper/meteorite-offers-2-billion-year-old/6851327

C. Koeberl. (1994). African meteorite impact craters: characteristics and geological importance. semanticscholar.com. African meteorite impact craters: characteristics and geological importance Semantic Scholar.

https://www.univie.ac.at/geochemistry/koeberl/publikation_list/088-African-meteorite-impact%20craters-JAES-1994.pdf