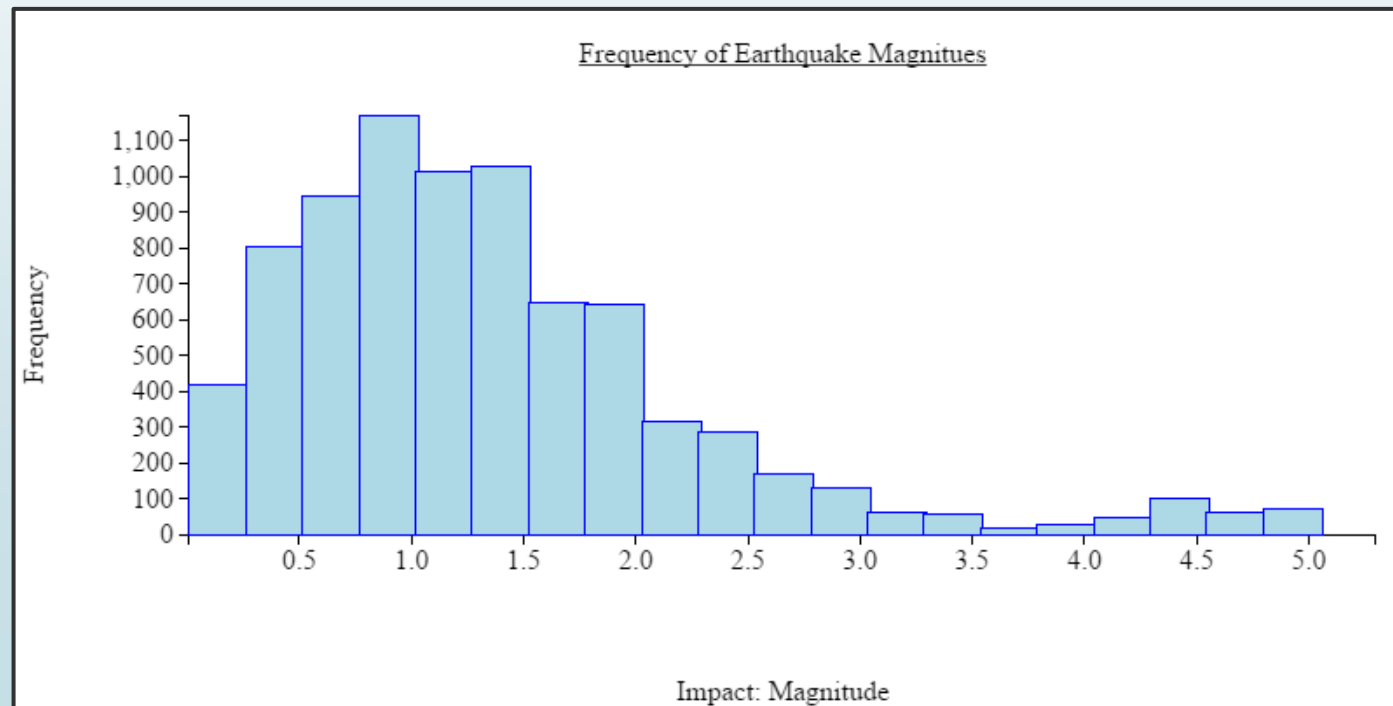# V.T. Student

Earthquakes Data Set

Abstraction

- *Definition: Abstraction is the process of representing real-world entities by their information properties that are relevant to a stakeholder. The properties have objective, quantitative values of one of four types.*

- In this project, the real-world phenomena of earthquakes have been abstracted into a "Magnitude", a numeric property (a float type) that represents the severity of the earthquake.
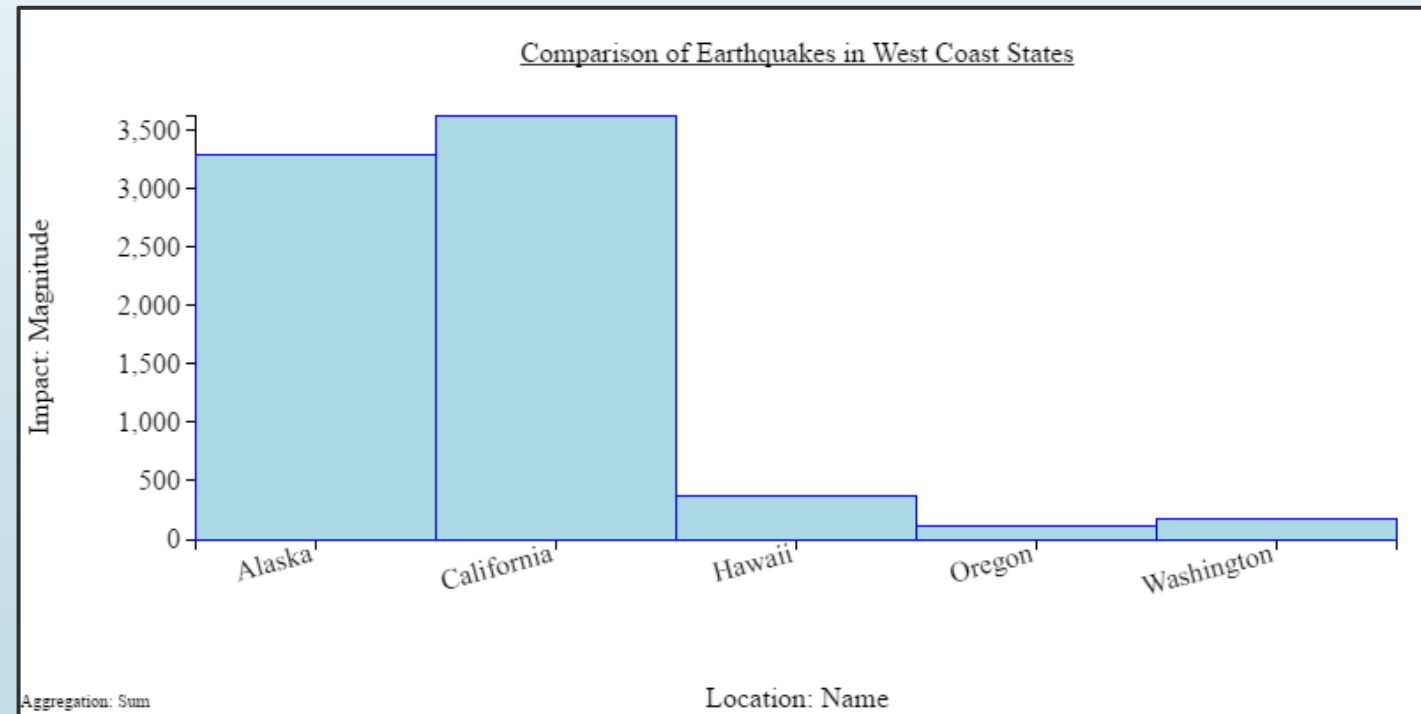
Question 1

- **Question**: What is the frequency of different earthquake magnitudes?

- **Answer**: As shown in the histogram below most earthquakes have magnitudes that are below 3.0 with the most frequently occurring magnitude being near 1.0. Only a small percentage of earthquakes are of magnitude 5.0. So most earthquakes are small.

Question 2

- **Question**: What is the comparison of earthquakes among West Coast U.S. states?

- **Answer**: As shown in the bar char below Alaska and California have the largest total of earthquake magnitudes. The total in these states is approximately 7 times that of the other three states.

Social Impact

- Decisions that would be affected by this analysis include
  - Federal or state agencies making decisions about building codes for structures to survive earthquakes
  - Insurance companies making decisions about rates for earthquake insurance
  - Federal or state agencies making decisions about allocation of resources for earthquake emergency preparedness

The End

- I have neither given nor received unauthorized assistance on this assignment.
- -V. T. Student