**Report for Earthquake Data Analysis**

**A screenshot of a computer

Description automatically generated**

The "Earthquake Data Overview" dataset provides a comprehensive look at synthetic seismic activity, crafted based on real data, in various regions worldwide. This dataset includes information about earthquake-prone locations, revealing key details such as place names, latitude, longitude, country, continent, and earthquake magnitudes. The data spans diverse geographic areas, offering valuable insights into regions susceptible to seismic events.

**Sample Data**

A table with numbers and text

Description automatically generated

**Data Dictionary**

**Place:** The name of the location where synthetic seismic activity is recorded.

**Latitude:** The geographical coordinate specifying the north-south position of the synthetic earthquake epicentre.

**Longitude:** The geographical coordinate specifying the east-west position of the synthetic earthquake epicentre.

**Country:** The country in which the synthetic seismic event occurred.

**Continent:** The continent to which the synthetic location belongs.

**Magnitude:** The magnitude of the synthetic earthquake, providing a measure of its intensity.

**DATA SUMMARY**

The summary of the dataset is as follows:

A table with numbers and text

Description automatically generated

**LONGITUDE VS FREQUENCY OF EARTHQUAKES**

**A green bar graph with black text

Description automatically generated**

As seen in the graph, maximum number of earthquakes happen in the longitudes of interval 0 degree to -50 degree which corresponds to countries in Africa.

**LATITUDE VS FREQUENCY OF EARTHQUAKES**

A graph of a number of blue bars

Description automatically generated with medium confidence

As seen in the graph, maximum number of earthquakes happen in the latitudes of interval 10 degree to 20 degree which implies most earthquakes happen near equator in the northern hemisphere.

**COUNTRYWISE DISTRIBUTION OF EARTHQUAKES**

A map of the world

Description automatically generated

The map shows that maximum concentration of earthquakes in the region of Africa and Central and South Asia.

**CORRELATION BETWEEN LATITUDE AND MAGNITUDE OF EARTHQUAKES**

**[1] -0.02479001**

There is negligible correlation between latitude and magnitude of earthquakes.

**CORRELATION BETWEEN LONGITUDE AND MAGNITUDE OF EARTHQUAKES**

**[2] -0.05125053**

There is very weak negative correlation between longitude and magnitude of earthquakes.