EARTHQUAKE PREDICTION MODEL USING PYTHON

It is well known that if a disaster has happened in a region, it is likely to happen there again. Some regions really have frequent earthquakes, but this is just a comparative quantity compared to other regions. So, predicting the earthquake with Date and Time, Latitude and Longitude from data is not a trend which follows like other things, it is natural occuring

**Problem Definition:**

 The problem is to develop an earthquake prediction model using a Kaggle dataset. The objective is to explore and understand the key features of earthquake data, visualize the data on a world map for a global overview, split the data for training and testing, and build a neural network model to predict earthquake magnitudes based on the given features.previous **Design Thinking:**

1. Data Source: Choose a suitable Kaggle dataset containing earthquake data with features like date, time, latitude, longitude, depth, and magnitude.
2. Feature Exploration: Analyze and understand the distribution, correlations, and characteristics of the key features.
3. Visualization: Create a world map visualization to display earthquake frequency distribution.
4. Data Splitting: Split the dataset into a training set and a test set for model validation.
5. Model Development: Build a neural network model for earthquake magnitude prediction.
6. Training and Evaluation: Train the model on the training set and evaluate its performance on the test set.

OBJECTIVES AND ASPECTS:

EARTHQUAKE PREDICTION IS NECESSARY TO UNDERTAKE DISASTER PREPAREDNESS MEASURES,REDUCING THE DAMAGE FROM THE EARTHQUAKES