

# **Program 14**

## **Mini Project: Earthquake Prediction**

AIM: Model for Earthquake Prediction using Neural Networks and the Python.

Dataset: <https://raw.githubusercontent.com/amankharwal/Website-data/master/database.csv>

Synopsis:

A model to predict the magnitude and depth of earthquakes based on their timestamp, latitude, and longitude using machine learning techniques. The code reads earthquake data from a CSV file, extracts the necessary columns, converts the date and time into a timestamp, and splits the data into training and testing sets. The model uses a neural network with two hidden layers and relu activation function to make predictions. The input data is split into training and testing sets and the model is trained on the training set using cross-validation. The performance of the model is evaluated on the testing set using mean squared error as the evaluation metric. The model can predict the magnitude and depth of earthquakes with reasonable accuracy and can be used as a tool for earthquake risk assessment and disaster management. However, it is important to note that earthquake prediction is a complex and challenging problem and this model is not a definitive solution but rather a step towards a better understanding of the underlying processes.