Phase 3

Earth quake prediction

312621243014::::::::Harish.M

Program :

```
import pandas as pd

import requests

from io import StringIO


# Download the dataset from Kaggle

# Replace 'YOUR_API_TOKEN' and 'earthquake-database' with your Kaggle API token and dataset name

kaggle_api_token = 'YOUR_API_TOKEN'

dataset_name = 'earthquake-database'


# You can obtain your Kaggle API token from your Kaggle account settings.

# Make sure to keep your API token secure and do not share it publicly.


# Construct the Kaggle dataset URL

kaggle_url = f'https://www.kaggle.com/api/v1/datasets/download/usgs/{dataset_name}.zip'


# Set the Kaggle API token as an environment variable

os.environ['KAGGLE_USERNAME'] = 'YOUR_KAGGLE_USERNAME'

os.environ['KAGGLE_KEY'] = kaggle_api_token


# Download the dataset using Kaggle API

subprocess.run(['kaggle', 'datasets', 'download', '-d', kaggle_url, '-p', '/content'])


# Extract the downloaded zip file
```

```
with zipfile.ZipFile(f'/content/{dataset_name}.zip', 'r') as zip_ref:
    zip_ref.extractall('/content')

# Load the dataset into a Pandas DataFrame
df = pd.read_csv(f'/content/{dataset_name}.csv')

# Data Exploration
print(df.head())
print(df.info())
print(df.describe())

# Data Analysis and Visualization
# (You can add your analysis and visualization code here)

# Example: Create a histogram of earthquake magnitudes
import matplotlib.pyplot as plt

plt.hist(df['magnitude'], bins=20)
plt.xlabel('Magnitude')
plt.ylabel('Frequency')
plt.title('Distribution of Earthquake Magnitudes')
plt.show()
```