**Title : Predicting the Impact of Hurricanes, Flooding and Earthquakes on Regions of Trinidad and Tobago.**

**Group Members:**
Jordhan Couteau (816036449)
Lillian Charles (816037199)
Caleb Ramdath (816038072)

**Problem Statement:**
The geographical location of Trinidad and Tobago in the Caribbean, near two major tectonic plate boundaries as well as within a hurricane belt, it is highly vulnerable to both tropical storms, earthquakes and flooding. Our project aims to develop a model to predict the impact of these natural disasters in the regions of Trinidad and Tobago.

**Justification:**
Hurricanes, Earthquakes and Flooding affects hundreds of thousands of people annually in Trinidad and Tobago. By providing accurate predictions as to the impact of these weather events, it would allow persons to better prepare for these eventualities, reducing the damage to property and loss of life.

**Preliminary Approach:**
Our approach involves us collecting and preprocessing historical natural disaster data, as well as real-time weather updates, and weather conditions. We will apply machine learning techniques such as linear regression, decision trees and neural networks to assist in the enhancement of our predictive accuracy.

**Data Considerations:**
We plan to use public hurricane and weather data, which will be sourced from NOAA. Additionally, climate data may be sourced from the Trinidad and Tobago Met Office. In the likelihood of missing essential data, we will generate synthetic data based on weather patterns in other Caribbean countries.

**Expected Outcomes:**
- A comprehensive report detailing methodology employed, research findings and findings.
- A predictive model capable of estimating the short term impact of weather phenomena on areas of Trinidad and Tobago.
- Recommendations for areas of development to reduce the impact of these weather phenomena.