**About the project:**

The project is to use seismic data to predict the timing of laboratory earthquakes. The data is acquired from a lab set-up for studying the physics of earthquakes. The input signal of seismic data is used to record acoustic\_data. This acoustic\_data is used to predict the time\_to\_failure.

**Data:**

The experimental data is recorded as a continuous segment which forms our training data. A folder comprising of many such smaller segments of data forms the test data. The data within a single test file is continuous, but multiple test files combined do not form the continuous segment as observed in training data. Hence, we cannot assume the predictions to be of the same continuous manner as those of train file.

The predictions should be such that there must be a single time to failure for every segmental test file corresponding to the time between the last row of the segment and the next laboratory earthquake.

Data fields:

1. **acoustic\_data** - the seismic signal [int16]
2. **time\_to\_failure** - the time (in seconds) until the next laboratory earthquake [float64]
3. **seg\_id** - the test segment ids for which predictions should be made (one prediction per segment)