

Assignment 37 - BST Construction Using Earthquake Data from USGS

Goals

The purpose of this assignment is to learn to

1. Access remote data through BRIDGES.
2. Manipulate a binary search tree using the earthquake magnitude (or some other attribute) as a search key

You will generate a visualization that looks like [that!](#)

Programming part

Task

Build a binary search tree where each node represents an earthquake record

Steps

1. Open your base code.
2. Plug in your credentials.
3. Compile and run the code and observe the basic binary search tree

Build the binary search tree with earthquake data

1. Your `BSTElement` will use `EarthquakeUSGS` as the generic parameter, using `float` as the key type (`BSTElement<float, EarthquakeUSGS`)
2. Write an `insert()` method, creating and inserting earthquake records into the the binary search tree, using the magnitude of the quake as a search key.
3. Color the root node in a unique color, the remaining nodes in a different color.
4. Traverse the tree to find the largest, smallest quakes, or highlight quakes by magnitude, by location, by date, etc.

Reference

Java

[BSTElement documentation](#)

[Element documentation](#)

[EarthquakeUSGS documentation](#)

C++ Reference

[BSTElement documentation](#)

[Element documentation](#)

[EarthquakeUSGS documentation](#)

Python Reference

[BSTElement documentation](#)

[Element Documentation](#)

[EarthquakeUSGS documentation](#)