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SDSU
presents
MS Computer Science
THESIS DEFENSE

Wednesday,
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Largest Earthquakes in Japan

Abstract

An earthquake is a natural phenomenon that occurs along fault planes within the Earth's crust. It is a result of the release of energy due to the accumulated amounts of strain between two fault lines. This is an interesting area of study due to the frequency of earthquakes on a daily basis. Japan, being so close to the epicenters of a majority of the earthquakes located within the area, is highly affected by the shockwaves and aftershocks. Patterns and trends of minor earthquakes, as well as their positions, can lead us to estimate when a major disaster can occur. In addition, it can also provide information to the Japanese Government about the potential hazards of a major earthquake event, a tsunami for example. This application is a GIS tool showcasing epicenters of the 50 largest earthquakes that occurred in Japan. Users have the ability to click on particular events and see more details on respective web pages. This application tries to be an effective learning tool for students by providing an interactive environment. Users have some ability to customize the application environment to suit their individual interests.

This tool has been developed in JAVA. MOJO (Map Objects JAVA Objects) is used to show map of Japan and epicenters of largest earthquakes in the form of points. MOJO is a set of JAVA APIs and is a tool developed by ESRI. Japan map, earthquake location points and their correlation were all designed using the powerful tool MOJO. Along with MOJO, other technical languages used to develop this application are HTML5, CSS3, JavaScript and Java Swing.

Thesis Committee

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