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GIS Learning Tool for USA's Tallest Skyscrapers and Their Construction

Abstract

Urban development in the twenty-first century takes many forms, but for many none quite so interesting as the skyscraper. With swelling cities and growing concerns about the environment, vertical living has become the preferred way of life for millions of people around the world. But just how these tall buildings are designed, constructed and operated remains a mystery to many–even to those who live in them. The motivation behind this application is to build an interactive and one-stop Geographic Information systems (GIS) learning tool that will help users learn about structural facts and geography of tallest skyscrapers around the metro cities of USA. For purpose of this application development, any building more than 700ft (213m) is considered as one of the tallest skyscrapers. The points displayed on USA map are the metro cities hosting these skyscrapers. When users click on cities, a brief description about the city along with a link to the top three skyscrapers is displayed. The links of the skyscrapers opens a HTML page that has a photo library, embedded video, facts, structural information etc., in a web browser.

Map Objects Java Objects (MOJO), a set of Java API's provided by ESRI, is used to display a map of the United States of America and skyscrapers locations in the form of points. Along with MOJO, other technical languages used to develop this application are HTML5, CSS3, JavaScript and Java Swing.

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