

SISTEM INFORMASI GEOGRAFIS DAN PENCARIAN RUTE TERPENDEK DENGAN ALGORITMA DIJKSTRA UNTUK PARIWISATA

ABSTRACT

Along with the era of development currently, the developments in technology are getting faster and faster. The information technology media gives us so many easy ways to have an access to the global information, such as: tourism information that is combined with the web based Geographic Information System, or for another example, the mobile mapping that uses the mobile phone technology, GPS, and so on. The examples that are mentioned before, make everybody can get the access to any tourism information in an easier way, complete with almost every location they want to search. Nowadays, digital map representation on web browsers or mobile hardware is simply applied by people, by the existence of 2D graphic format in XML. Which means that the distribution of SVG (Scalable Vector Graphics) of digital map will getting faster and more simple than before, even on the mobile media.

Based on the progress it made, thus our research would be concentrating on creating a system which will integrating mobile device technology with internet connection to the Geographic Information System using SVG and SVG Tiny as the map spatial data representation with vector data model, in the hope that the resulting system would be able to be used as the main tourism information, with the use of digital mapping and also helping to decide the most efficient or the shortest routes to get to a particular destination. The already built system can then be applied on the internet such as web and mobile device, so that all the users can gather a real time information from the Web-GIS server.

The built Geographic Information System is a client-server system, consist of a Web Server application (Server Map) to generate the map which is stored in server database, and two client application: Web Client (WeMap) and Mobile Client (MobieMap) to do map request to the server and show server response in web browser or another mobile device. The map is shown in XML SVG format which is could be read and shown by that two application.

Keyword : Geographic Information System, Shortest Path Searching (Dijkstra's Algorithm), Tourism.