IMPLEMENTATION OF MOBILE-BASED GEOGRAPHIC INFORMATION SYSTEM FOR HOSPITAL SEARCH IN SLEMAN DISTRICT

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ABSTRACT

A hospital is an organization that includes organized professional medical personnel and permanent medical facilities to provide medical services, continuous nursing care, diagnosis and treatment of diseases suffered by patients. As the function of hospitals becomes increasingly vital, every community member is expected to know the locations of the hospitals closest to where they live to anticipate undesirable events. Geographic Information System (GIS) is a technology that is currently a very essential tool in storing, manipulating, analyzing and displaying natural conditions with the help of attribute data and spatial data. GIS can represent the real world on a computer monitor just as maps can represent the real world on paper. Under these conditions, this system is very useful in making it easier to manage and review the location of hospitals in Sleman Regency. The system that will be designed is website-based using the React JS Framework and mobile-based using the React Native Framework. In the data collection process the author chose to use observation and interview methods. The author applies the Haversine Formula to measure the distance from the user's location to the hospital location. The aim of this research is to build a geographic information system with an integrated database, especially for finding hospital locations in Sleman Regency. So it can provide information to users who want to find hospital locations and hospital services in Sleman Regency.

Keywords: Geographic Information System (GIS), Hospital, Sleman Regency