Design and Implementation of a Geodatabase and WebGIS

Authors : Sajid Ali, Dietrich Schröder

Abstract : The merging of internet and Web has created many disciplines and Web GIS is one these disciplines which is effectively dealing with the geospatial data in a proficient way. Web GIS technologies have provided an easy accessing and sharing of geospatial data over the internet. However, there is a single platform for easy and multiple accesses of the data lacks for the European Caribbean Association (Europaische Karibische Gesselschaft - EKG) to assist their members and other research community. The technique presented in this paper deals with designing of a geodatabase using PostgreSQL/PostGIS as an object oriented relational database management system (ORDBMS) for competent dissemination and management of spatial data and Web GIS by using OpenGeo Suite for the fast sharing and distribution of the data over the internet. The characteristics of the required design for the geodatabase have been studied and a specific methodology is given for the purpose of designing the Web GIS. At the end, validation of this Web based geodatabase has been performed over two Desktop GIS software and a web map application and it is also discussed that the contribution has all the desired modules to expedite further research in the area as per the requirements.
Keywords : desktop GISSoftware, European Caribbean association, geodatabase, OpenGeo suite, postgreSQL/PostGIS, webGIS, web map application

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