Geoweb: A GIS Web of a company sanitation based on open source software

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1. Motivation and objectives

The main objectives of the project are to spatialize the customers and infrastructure of the public sanitation company of Bahia state of Brazil through the Geographic Information System (GIS) Web. The company is named EMBASA that supplies about eleven million people in Bahia State. Aiming to save costs, the GIS development was based on free and open-source software. The outcomes are various, for example, the users can locate customers, sewerage, and water networks in the GIS using many functionalities. The GIS Web is applied on commercial and operations areas of the company and allowed many gains.

2. Design

The GIS web project was developed based on free and open source software. The GIS Web is composed of MapServer, OpenLayers, and Geomoose Framework. The GIS Web project was developed in two layers of architecture. A layer is the vision layer where are the interface components like HTML pages. Another layer is the database layer that has the implementation of business logic. Picture 1 shows a screen where the user can locate the customers on the map. Beyond, the user can be view data about this customer's name, address, zip code. Picture 2 shows a screen where the user can find water and sewerage networks and all company's infrastructure.

Picture 1: Users can view customers supplied by the company

Picture 2: Users can view water networks

3. Reproducibility

A source code snippet of project is available on https://github.com/helderaragao/codesnippetgeomundus.