

Architectural Styles

The architecture of our application will be heterogeneous, comprised of multiple architectural styles. We will use data-flow architecture with pipes and filters in order to download the latest datasets from the Open Street Map API and update the Database. The datasets will be stored in a Database and use the data-centric architecture more specifically the repository subtype, the client will send requests to the system which will be processed and a response will be sent back. The application will be a web based application. The application will be resource-oriented using the HTTP protocol. We will use layered architecture having 4 layers, data-access layer communicating with the database, service layer composed of business logic, presentation layer containing the web controllers and user interface layer containing the view templates. We will use network-centered style, more specifically client-server architecture. The application will use the remote invocation style, invoking remote methods from the services. The application will be containerized and deployed to the cloud composed of multiple microservices.