Overview of our Project – GEOM99 Group Delta

Geocortex Site: Delta_Water_Infrastructure

The aim of our project is to develop a web solution to query Water Main pipe materials. To do this we used the Geocortex Essentials 4 platform.

The first step was to create and upload a map service to an ArcGIS server. This involved acquiring municipal water infrastructure data which was sourced from an ESRI tutorial that focused on water infrastructure in Naperville, Illinois. We took this data and uploaded a customized map service to the Fleming College Luna server.

We then moved towards the Geocortex platform. This involved creating a new site and adding a map service using the Rest Service URL for our customized map service of water infrastructure in Naperville.

To create our query solution, we used Geocortex Workflow Designer and built upon a workflow previously designed by our instructor Shawn Morgan. The previous workflow was designed to search Collaborative Projects by Project Name.

We wanted our workflow to search water main pipes from our data set based on pipe material. The type of materials available for search are CAS (Concrete Asbestos), DIP (Ductile Iron Pipe) and UNK (Unknown). We set about reconfiguring the example workflow to be able to perform the material search on our own map service water mains.

There are 3 main components of the workflow the DisplayForm, the QueryTask and an If statement.

We began by editing the DisplayForm section. This section sets up the search function and autocomplete functionality. We changed the search function to autocomplete results that are “Like” entries in the MATERIAL field by editing a where clause. We also set up the result of this search to be an output argument used in the QueryTask.

We then edited the QueryTask parameters. We changed the “Query Service URL” to point our map service and specifically our “Water Main” layer.

Next, we modified the “Where” clause parameter to create a statement that searches the “Material” field against the output argument “pipematerial” using a like operator. The outfields are set to “*” (ALL) all that match the Where clause.

The QueryTask generates a result named “featureSet1” which is the result of the query.

Finally, an IF statement is implemented that checks whether the result of search generated any results. If it didn’t an error message occurs.