Newton, Zachery

Geog576

Final Project
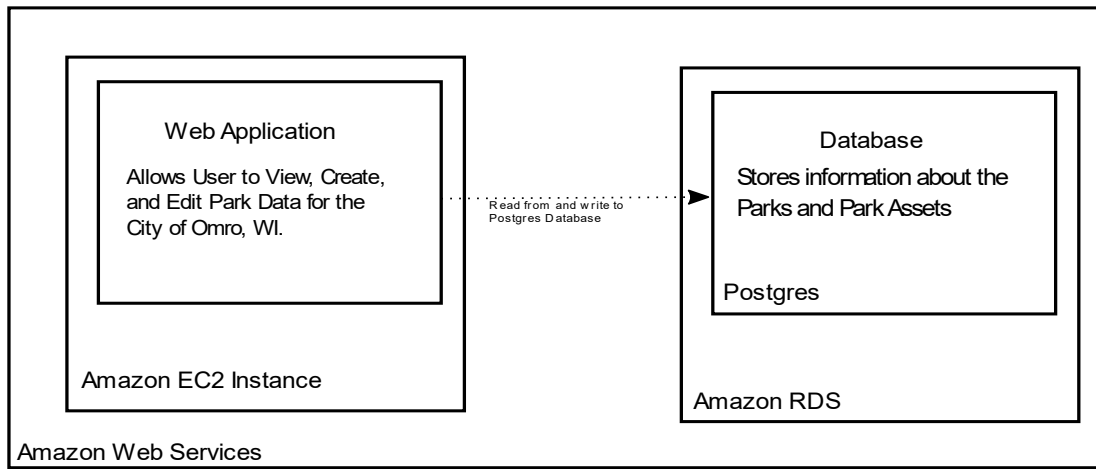
Title: City of Omro Park Asset Collector

Abstract: **T**his open-source development will be focused on a mobile first browser based front end and a postgres backend hosted on Amazon Web Services. The front-end deployment will reside on a EC2 instance also hosted on AWS. The application will be focused on the collection of park assets for the City of Omro, WI. The city currently does not have a public facing GIS environment nor does it have any parks mapping available online to the public. The ultimate goal of the application is to collect the existing park boundaries and to collect all assets residing within those park boundaries. The data for the park boundaries will come initially from a description of the parks from the city's website (Parks List | Omro WI) and an examination of Winnebago County parcel data to decern City owned parcels. This will be done at the beginning of the project to help set work areas for data collection of the individual assets. The initial data collection would be the first step in the overall objective of creating a park viewer for the city. The application would include a parks boundary layer and the collection would be set up with a point feature layer to denote the various assets within each park. The user would benefit from a browser-based web map that can utilize the mobile device's location to pinpoint assets. It would also have a search feature, base map gallery, and filtering functionality. Additionally, each feature would have a pop-up to display additional information about the individual assets as well as a photo of the asset.

Data Table:

Layer	Description	Source
Park Polygon	Derived from Winnebago County Parcels and City of Omro Park List	Parks List	Omro WI Index of /GISOpenData/General
Park Asset Points	Assets within various parks	Created in the project
Terrain Basemap	Esri Basemap of the terrain	https://basemaps.arcgis.com/arcgis/rest/services/World_Basemap_v2/VectorTileServer

System Diagram:

Amazon Web Services

Amazon EC2 Instance

Web Application

Allows User to View, Create, and Edit Park Data for the City of Omro, WI.

Read from and write to Postgres Database

Amazon RDS

Database

Stores information about the Parks and Park Assets

Postgres

Wire Frames:

Frame 1 (top left)

Zoom In
Zoom Out
Locate
Search

Basemap Gallery
Filter
Edit

MAP

Frame 2 (top right)

Zoom In
Zoom Out
Locate
Search

Basemap Gallery
Filter
Edit

Park Name

MAP

Frame 3 (middle left)

Zoom In
Zoom Out
Locate
Search

Basemap Gallery
Filter
Edit

Park Asset
Bench
Shelter
Water
Recreation

MAP

Frame 4 (middle right)

Zoom In
Zoom Out
Locate
Search

Basemap Gallery
Filter
Edit

Terrain
Imagery
Streets
OSM

MAP

Frame 5 (bottom left)

Zoom In
Zoom Out
Locate
Search

Basemap Gallery
Filter
Edit

Bench
Shelter
Water
Recreation
Other

MAP