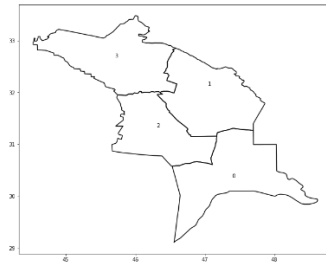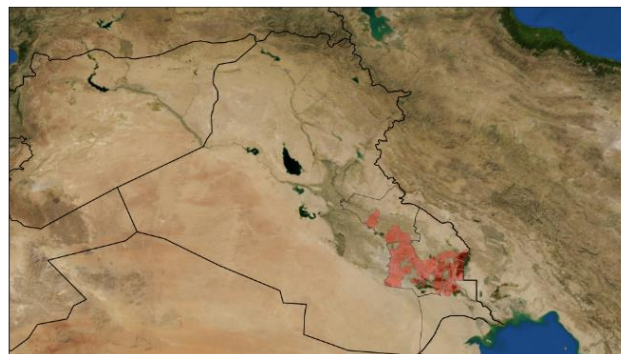## THE DATA

Attached to the HCSS challenge is a data file (data.csv). The data file contains a tabular dataset representing a sample of observations pertaining to 268 Iraqi municipalities (3rd level administrative units; administrative subdistricts). The dataset is indexed. The index, ADM3_EN, refers to the names of these municipalities. The dataset also contains the geometry variable that refers to the administrative boundary of each municipality. Each of these administrative boundaries is a vector of geographical coordinates of a polygon, respectively. For this reason, this dataset is considered a geospatial dataset.

The geometry variable enables you to manage the administrative boundary of each municipality as a data point. For instance, if such a geometry variable were available for Iraqi governorates/provinces, one could display on screen the administrative boundaries of four southern Iraqi governorates/provinces (Al-Basrah, Thi Qar, also spelled Dhi Qar, Wassit, and Maysan). This is what the administrative boundaries of these four governorates/provinces would look like:

The non-interactive visualization below has a basemap as a background. Specifically, the basemap was ingested from ArcGIS API. The visualization was then delimited in terms of geographical coordinates to show only Iraq. When such a basemap and geometry variable are put together, this is what the non-interactive visualization can look like:

Sourcing a basemap from ArcGIS requires from you to create an ArcGIS account. However, the basic features of ArcGIS, including basemaps, are available free of charge. Further, to retrieve a basemap, you can use ArcGIS API for Javascript (https://developers.arcgis.com/javascript/latest/api-reference/esri-Map.html#basemap; if you are really handy, you can also use 3D features, such as https://developers.arcgis.com/javascript/latest/sample-code/layers-custom-elevation-exaggerated). You can also use an ArcGIS API for any language of your choice that is available at the ArcGIS website. This sample code shows you how to use ArcGIS API for Javascript:

When it comes to the data.csv file, apart from the index and geometry variable, each of the Iraqi municipalities is also described with armed conflict activity, demographics, environmental, and climatological variables. There are altogether 26 such variables in the data.csv file. In the above visualization, the red color shows specific values of a particular variable for only some Iraqi municipalities.

Finally, please use as many or as little variables from the data.csv file as you need to convey to the user how skilled you are in front-end development. Querying the data.csv file and conditioning a selection of data points on the interactivity of your web app requires some data management. The data.csv file does not have to be processed with any machine learning algorithm but can be used as is.