

## Read Me

audit.py - cleans the .osm file "interpreter.osm" using the custom helper functions is\_problem and is\_phone. First it determines a problem tag attribute then applies the custom helper function fix\_problem and a custom mapping to replace the problem tag attribute or in the case of a phone number, applies the custom helper function format\_phone to recursively re-format the problem tag attribute.

data.py - this function converts a cleaned .osm file to a series of .csv files: nodes.csv, nodes\_tags.csv, ways.csv, ways\_nodes.csv, and ways\_tags.csv. It utilizes the function shape\_element which converts the node or way XML element to a Python dictionary. It's main function uses the helper functions get\_element and validate\_element as well as UnicodeDictWriter to actually write the output file.

schema.py - this function serves as a template for the validate\_element helper function in data.py which raises an exception if the data does not conform to the mandated format.