

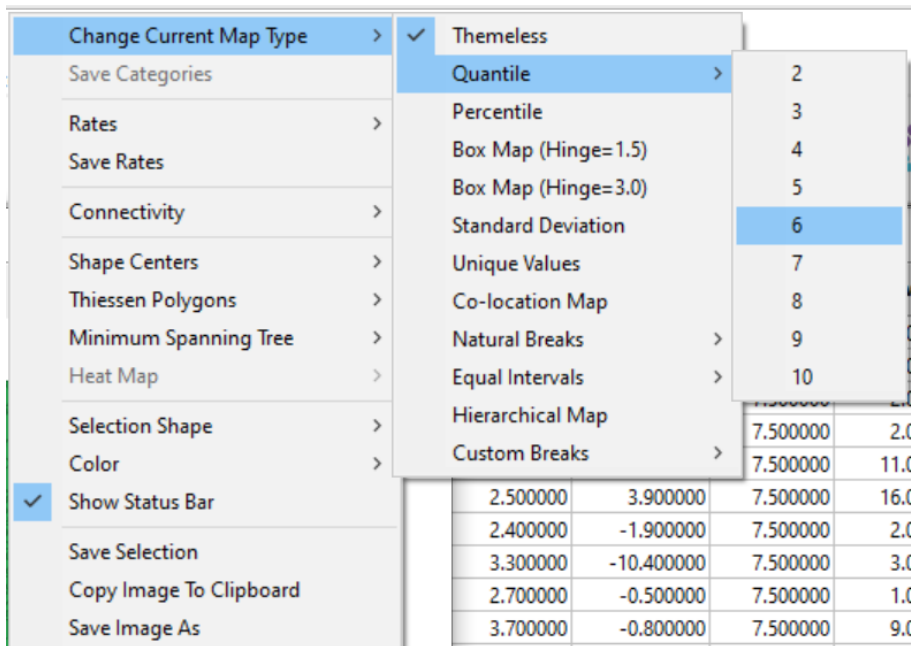
Instructions for Exercise 3 –Spatial Statistics and Regression

1. Load the data into GeoDa

Load the file London_Ward_Variables.shp into GeoDa

2. Explorative spatial analysis

Right-click on the map to create a choropleths



Explore selecting the different intervals of the choropleths and visualizing their spatial distribution and histogram for different variables. Explore the parameters of the histogram.

Create a histogram for variables crime (LONWB_Crim) and greenspace (LONWB_Gree) and visualize the spatial distribution of wards from different histogram values.

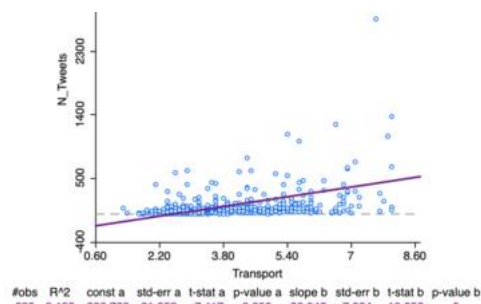
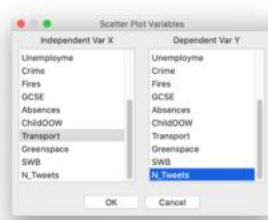
3. Eliminate outliers

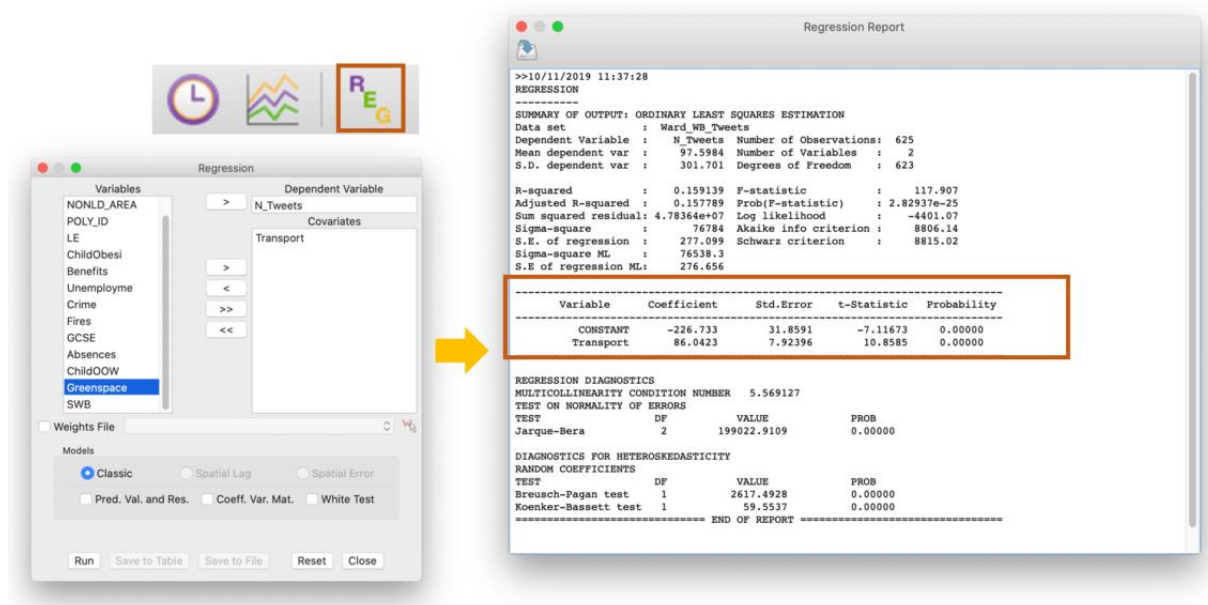
Generate box-plots to identify outliers.

Sort the table in descending order to identify them. Edit their values.

4. Look for associations

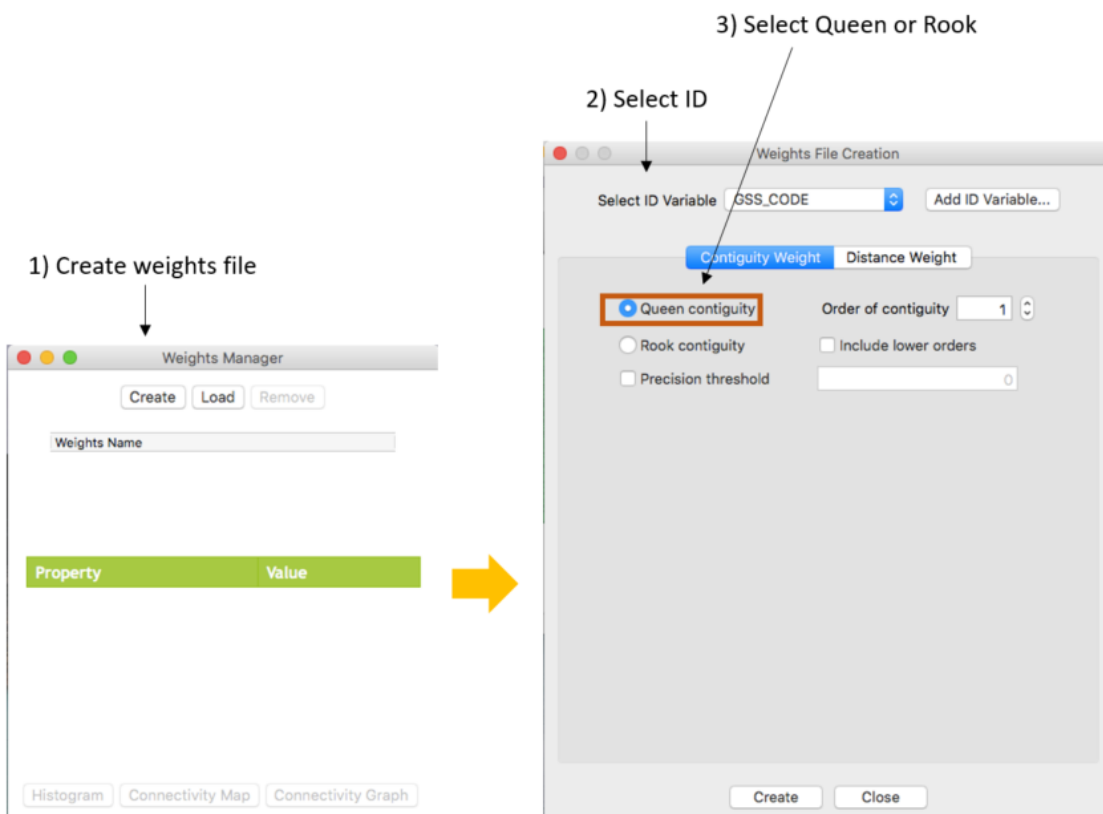
Generate a scatterplot / univariate regression. Explore the parametes / results of the regression





5. Create a spatial matrix

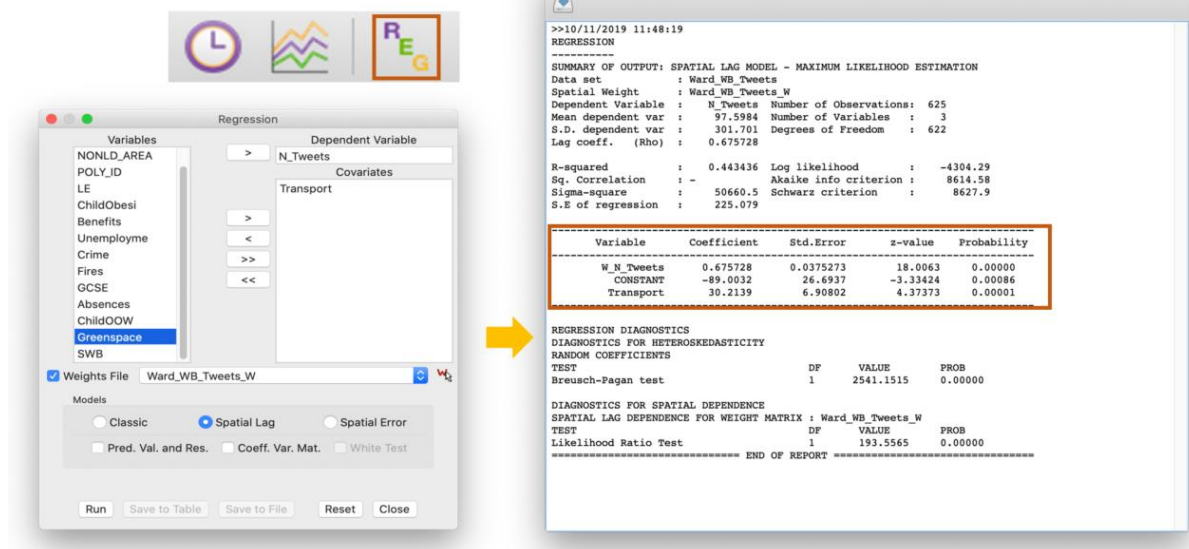
Create a spatial matrix with queen contiguity.



Visualize the number of neighbor's histogram, as well as the connectivity map and graph.

6. Generate a Spatial Lag model

Generate a spatial lag model with variables number of tweets (dependent) and LONWB_Tran (independent). Use the spatial weights matrix created above.



Save the predicted values, the lag residuals and the prediction errors.

7. Visualise spatially the predictions, errors and residuals.

Use box map (hinge 1.5) as a map type.