COIS 3510H
Assignment 3
Due Friday, Nov 27 (noon)

Question 1 (30 points in total)

Find two examples of maps online and describe how spatial autocorrelation influences what you see in the map (roughly 250 words each. Please include the references in your writeup)

Question 2 (20 points)

Choose one free tool for visualization on the web. Try to visualize a dataset of your choice and describe your experience with the tool. What worked well and what did not? Find two things to criticize from a design viewpoint. Include screenshots. (roughly 500 words)

Question 3 (25 points)

For this question, we will use austres dataset that is available in the package. Using R, plot the time series in the following ways
   a) Plot the time series
   b) Decompose the series into its seasonal, trend and irregular components and plot the result in one graph.
   c) Determine whether the data is autocorrelated and justify your answer
   d) Plot the differences between successive data values

For all graphs, use labels as appropriate. Submit the documented source code and screen shots for your graphs. Use color schemes that are appropriate for users suffering from red-green color blindness.

Question 4 (25 points). Choose one of the following:

   a) Design a system that allows a user to review a collection of videos.
   b) Find a spatial (or spatio-temporal) dataset with geographical coordinates and, using R, plot the data over a Google map. For all graphs, use labels as appropriate. Submit the documented source code and screen shots for your visualizations.