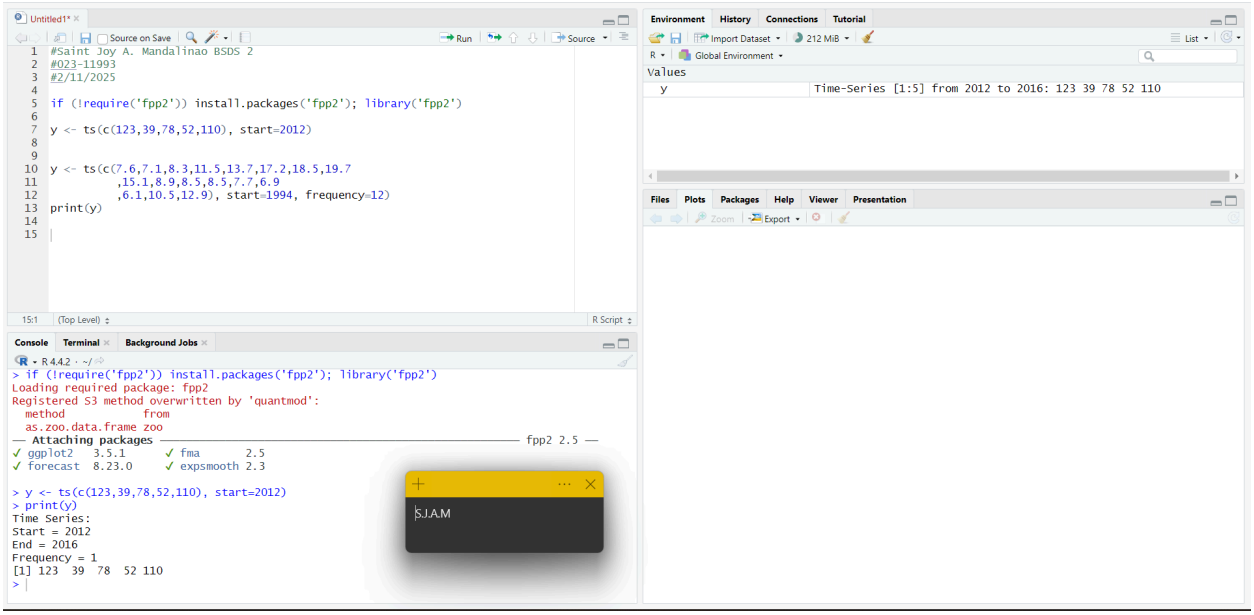
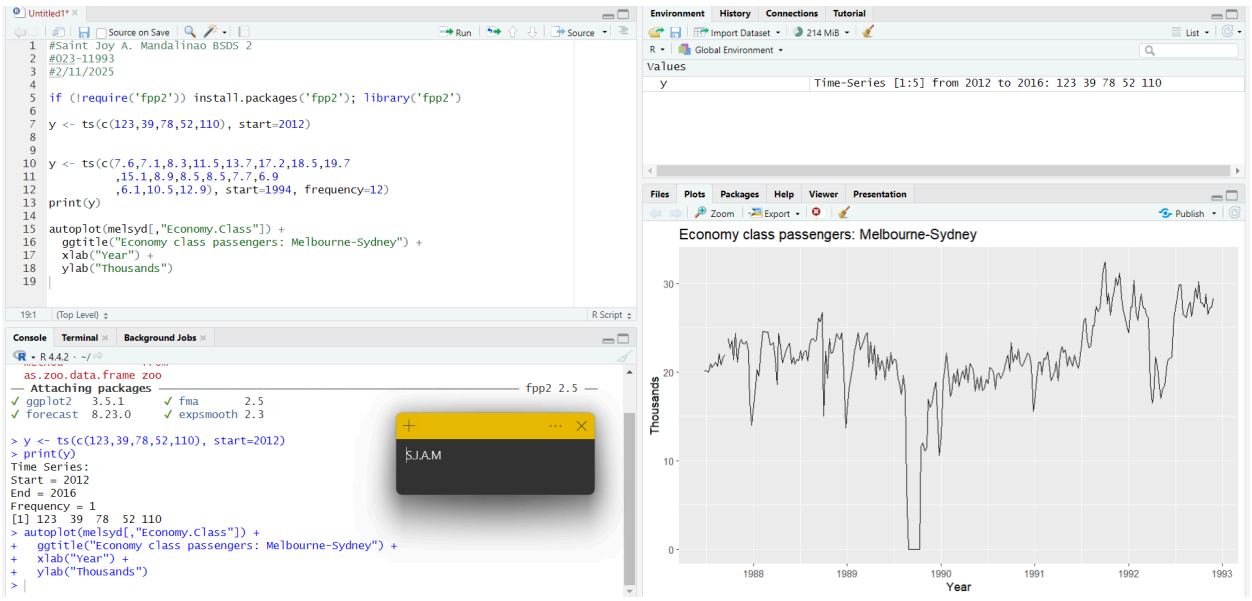
Saint Joy A. Mandalinao BSDS 2
2023-11993
2/11/2025

Creating time series objects: Installing the packages.

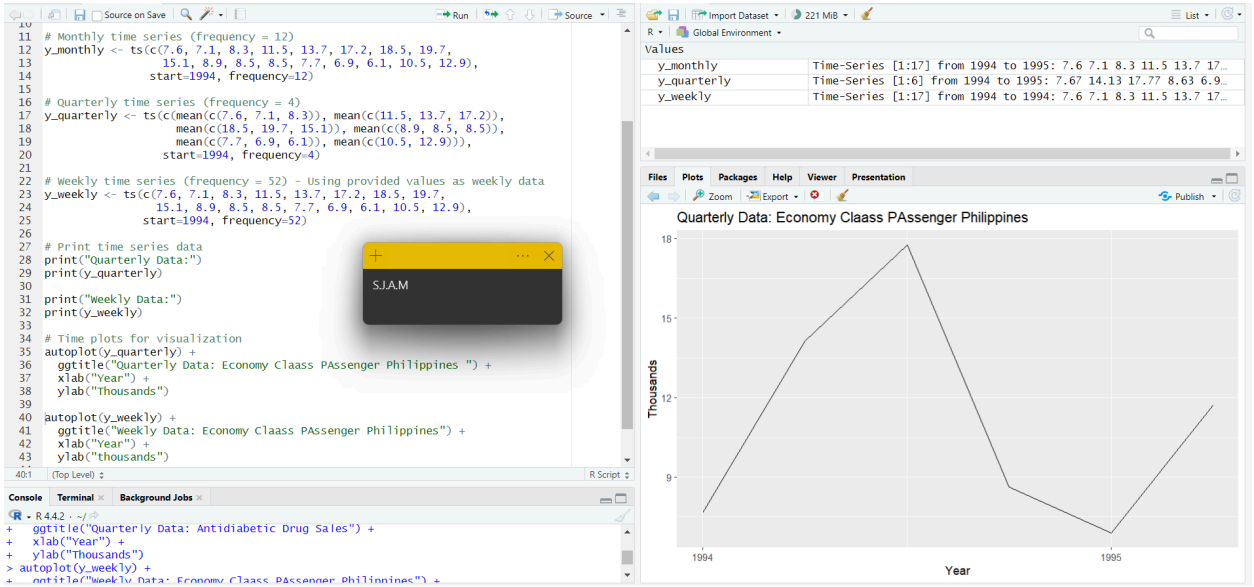


Creating time series plots

Economy class passengers: Melbourne−Sydney



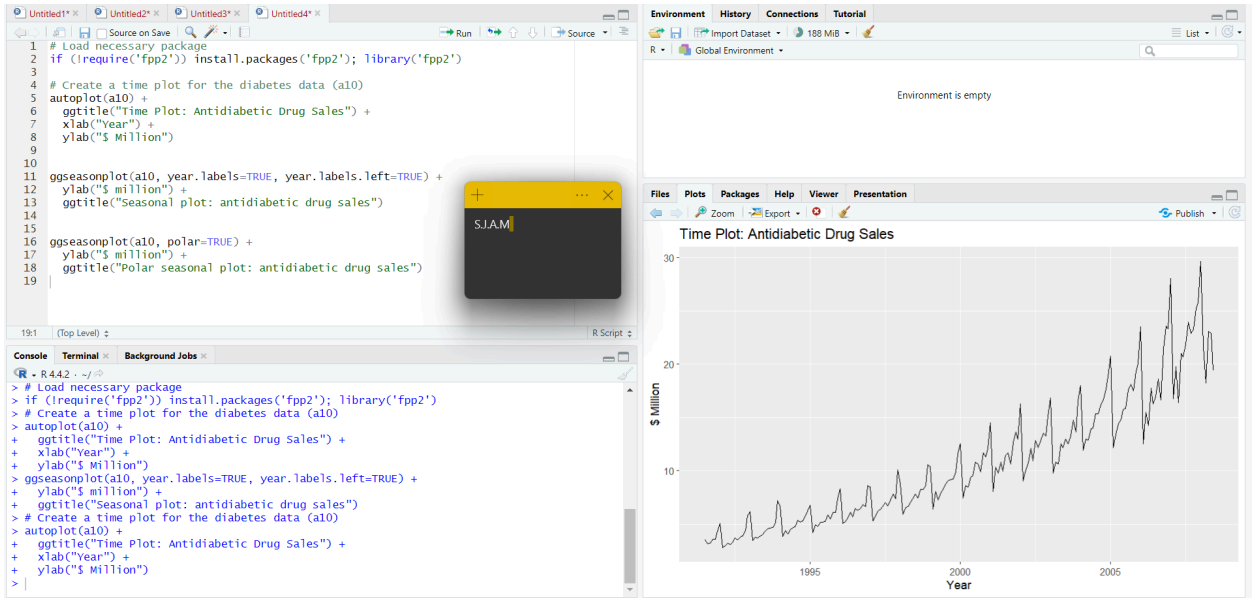
For other frequencies: Quarterly is 4 and weekly is 52.



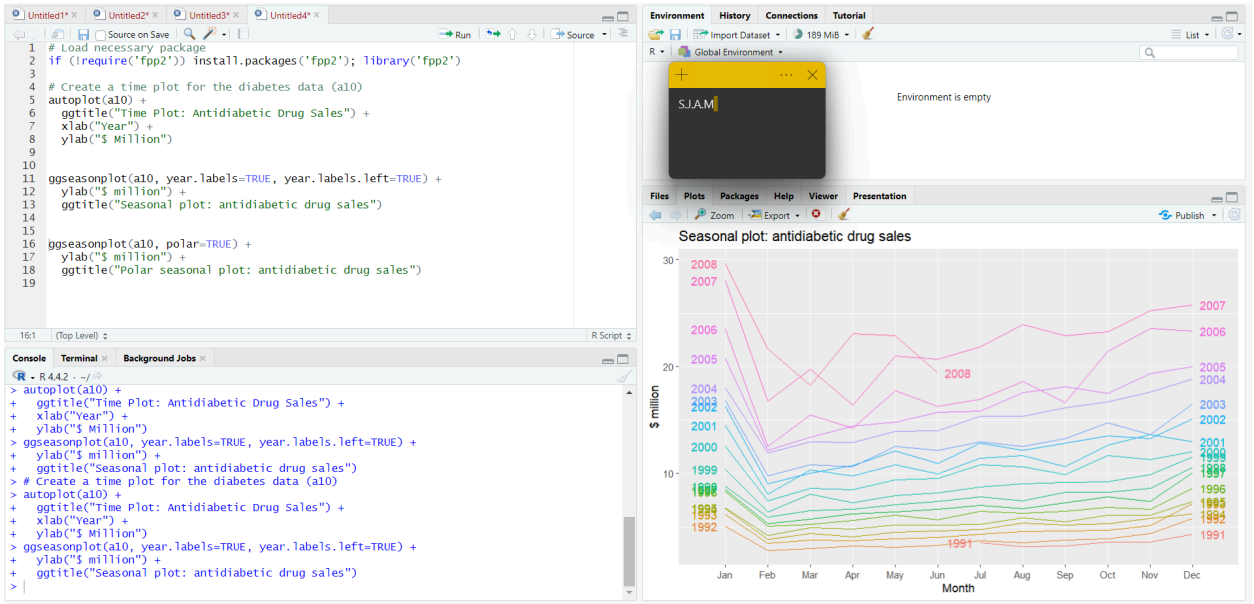
We use other example here to show the other frequency.

Exercise 1: Create a time plot for the diabetes data. The name of the data is a10

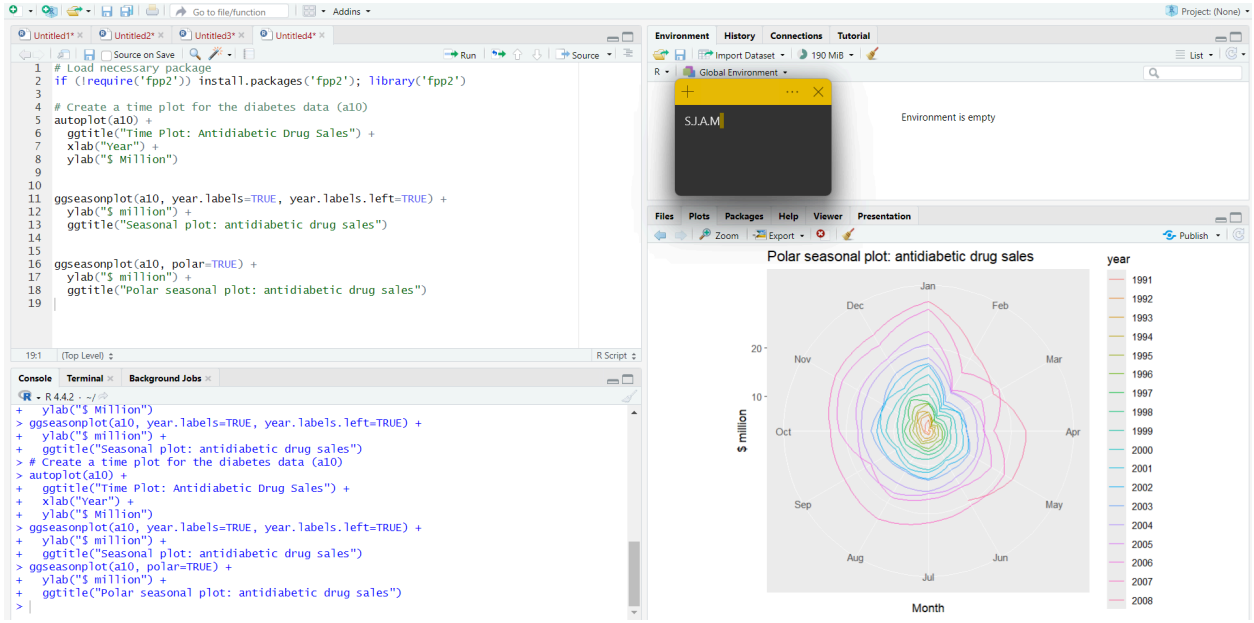
Time plot: Anti Diabetic Drug sales



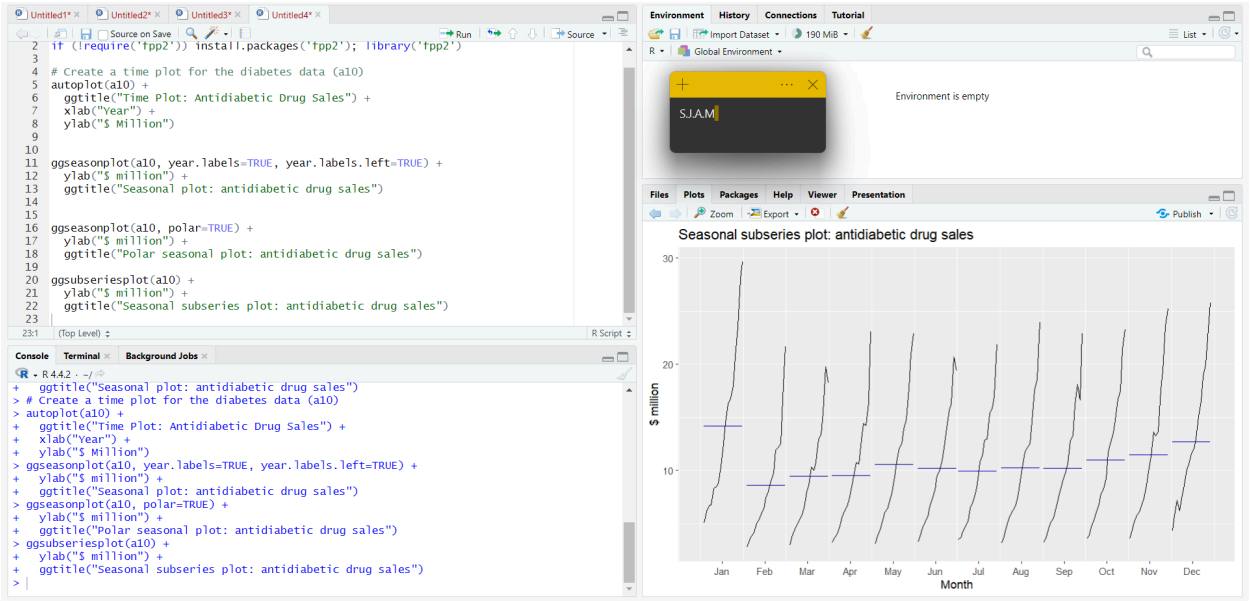
Seasonal plot: Anti Diabetic Drug sales



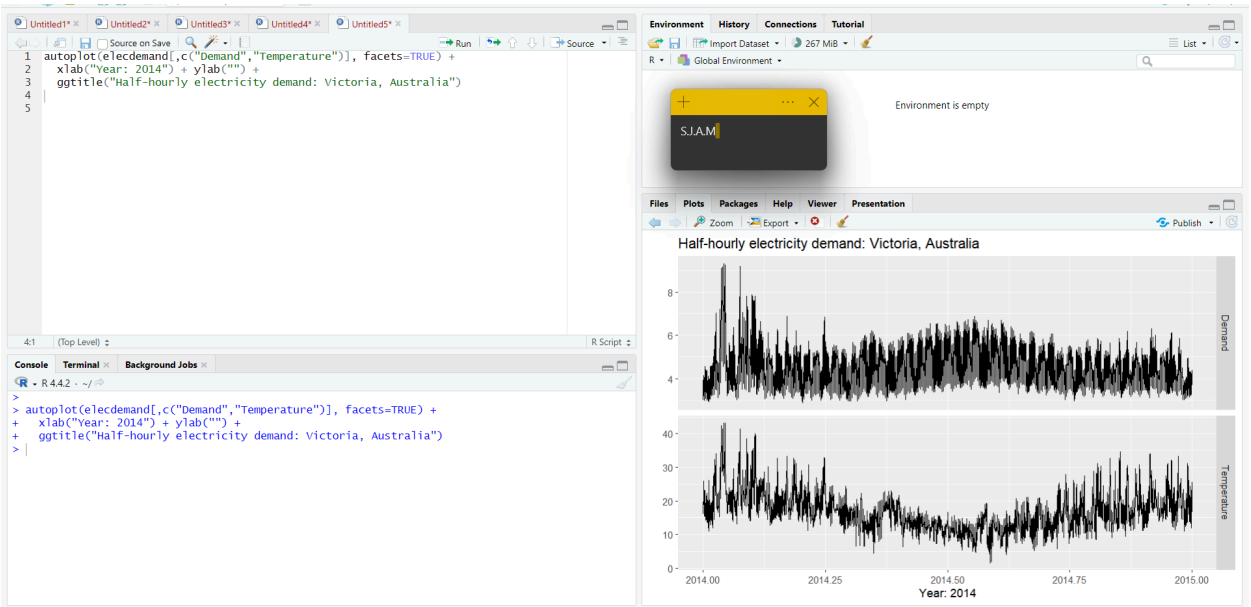
Polar Seasonal Plot: Anti Diabetic Drug sales



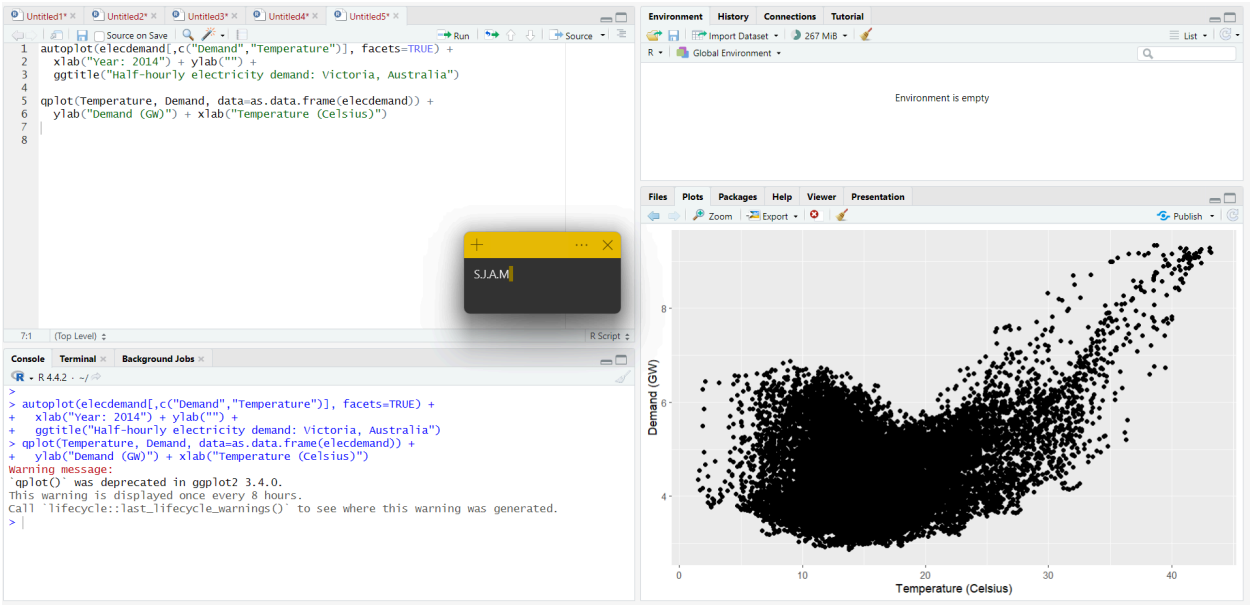
Seasonal Subseries Plot: Anti Diabetic Drug sales



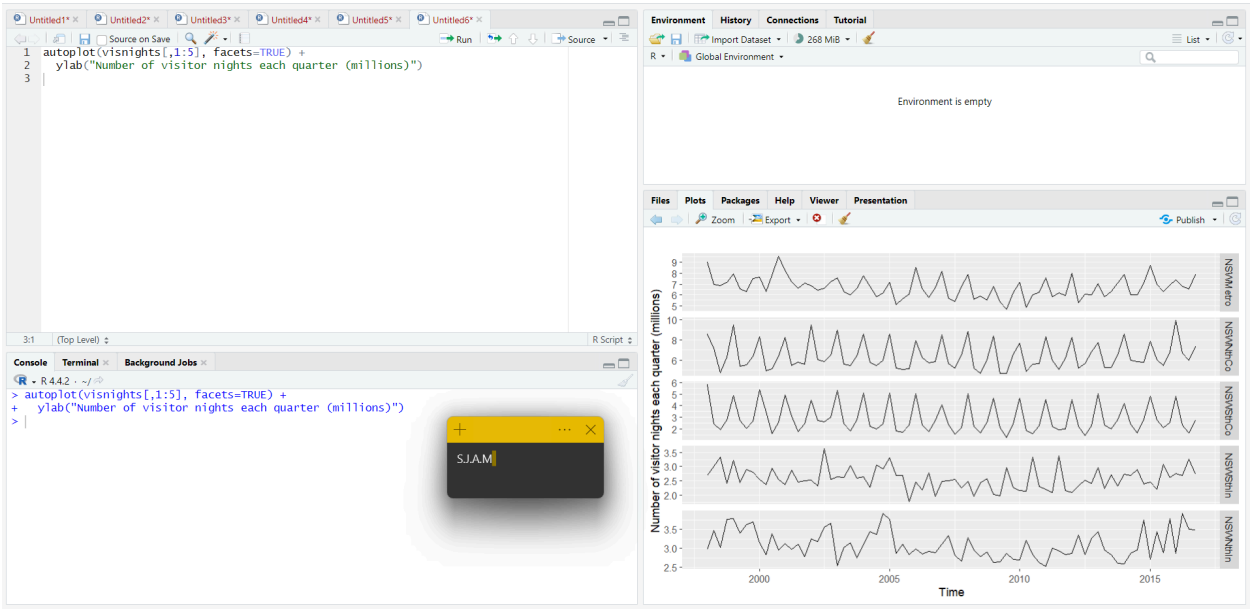
Scatterplots: (Half−hourly electricity demand: Victoria, Australia)



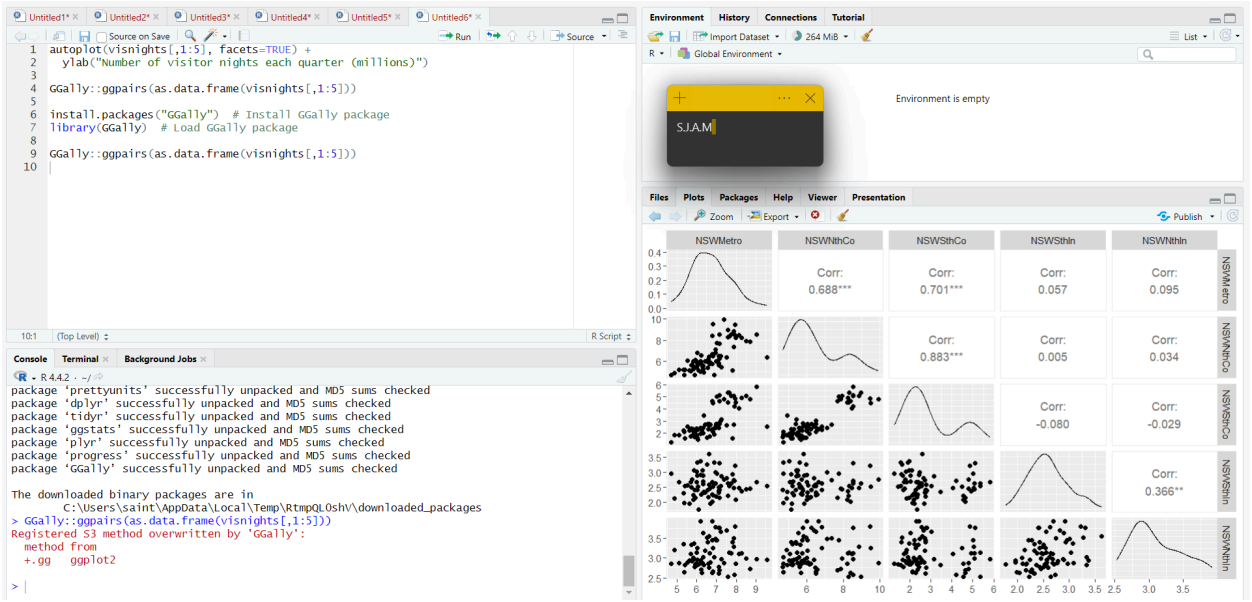
The relationship between elctricity demand and temperature is best shown using a scatterplot.



Scatterplot matrices: When there are more than 2 variables it is better to plot each variable against each other. The plots below shows the quarterly number of visitors for five regions of New South Wales, Australia.



To better see the relationships between these five time series, we can plot each time series against the others and arrange the plots in a scatterplot matrix.



Aside from the scatterplots it also shows the correlation between each pair of variables.

Lag plots