Homework 7

**Problem 1** - Use the Daily stock returns data set. The columns are companies; Man1, Man2, Man3 are manufacturing companies; Serv1, Serv2, Serv3, Serv4 are service companies.

stock <- read.csv("https://bit.ly/3egKiMU")  
# Multiplying by 100 to convert to % scale  
mydata<-stock\*100

1. Perform confirmatory factor analysis base on two factors: manufacturing and service.

# It's pretty straight forward. Make an SEM model based on two factors: Manu and serv as latent variables to the manufacturing and service return variables, respectively. Follow a similar process to the CFA for crime data.

1. Report the path diagram that shows coefficient estimates. Code: library(semPlot); semPaths(fitted.sem.object, “est”)
2. Report SRMR, GFI, and AGFI. What do you conclude? Is the model you made in part (a) approved.
3. Find the 95% confidence interval for the correlation between the two factors: manufacturing and service returns.