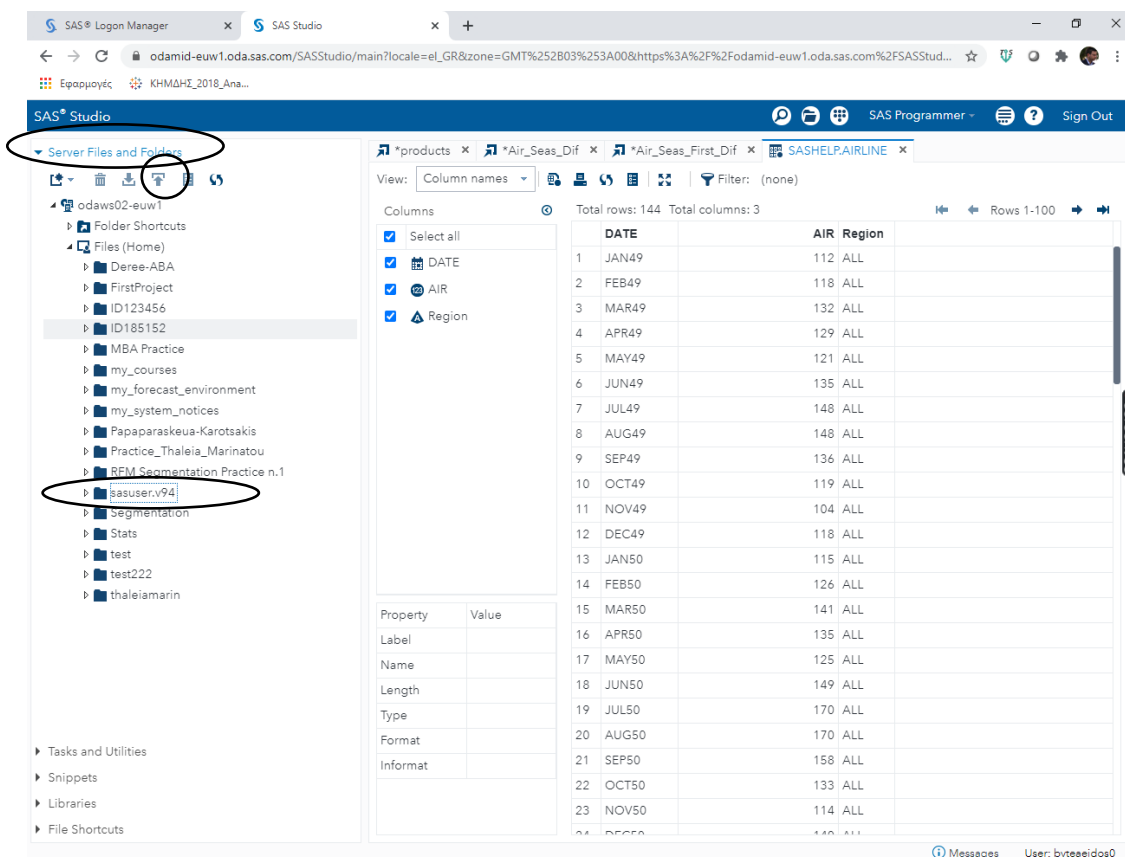


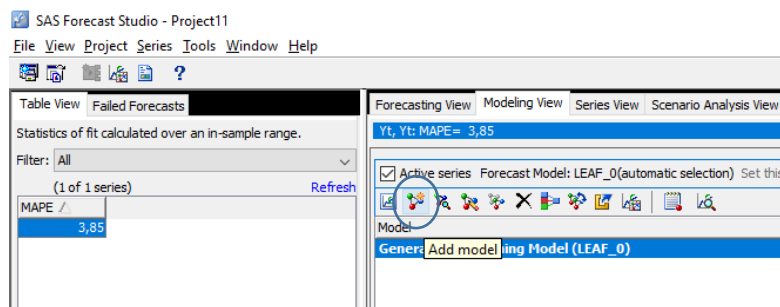
Exercise Beer_Production ARIMA

- 1) Open google chrome
- 2) Go to welcome.oda.sas.com
- 3) Select Europe in the drop down menu and press sign in
- 4) Insert your credentials
- 5) In the dashboard select SAS Studio
- 6) On the left hand side select Server Files and Folders and then sasuser.v94
- 7) Press the upload button (the one with the arrow heading upwards).



- 8) Select the file “Beer_Production_For_SAS.sas7bdat”
- 9) Press Upload
- 10) Open SAS Forecast Studio
- 11) In the projects window press New.
- 12) In step 1 name the project “Beer_Production” and press next.
- 13) In step 2 open the sasuser library, Select the “Beer_Production_For_SAS” data set and press next.

- 14) In step 3 press next
- 15) In step 4 select Date as the time id variable.
- 16) In step 5 select Beer as the dependent variable.
- 17) In step 6 press next
- 18) In step 7 set 12 in the Change the number of periods to forecast (horizon). Press Change Other Forecasting Settings. Select the Model Selection tab. Check the Use Holdout Sample for Model Selection option and input 14 and 25. Press OK. Press Next.
- 19) In step 8 press finish
- 20) In the Forecast Summary window double click on the Model Type box. What do you observe? Press close.
- 21) In the Forecasting view window, comment on the characteristics of the time series. Is your observation in line with the results of the previous step (model type)?
- 22) Select the Series View window. Select plot Unit Root Test. Which one of the three windows should you look (Zero Mean, Single Mean, Trend)? What do you conclude? Is this in line with the results in the two previous steps?
- 23) Select plot Seasonal Unit Root. What do you conclude? Select the ACF plot on the actual data. What do you conclude?
- 24) Check the ACF and the PACF plot on the seasonal differenced data to conclude on the p, d, q, P, D, Q.
- 25) Select the Modelling View window. Select Add Model.



- 26) Select ARIMA and press OK
- 27) Select the appropriate options for p, d, q, P, D, Q.