We've recently made an accessibility improvement to the community and therefore posts without any content are no longer allowed. Please use the spoiler feature or add a short message in the message body in order to submit your weekly challenge.

2022-05-26 Updates: Email: If you're not seeing emails be delivered from the Community, please check your spam and mark the Community emails as not junk. Thank you for your patience.

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Weekly Challenge

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IDEAS WANTED

We're actively looking for ideas on how to improve Weekly Challenges and would love to hear what you think!

SUBMIT FEEDBACK

Weekly Challenge

Challenge #24: ARIMA Time Series

GeneR
Alteryx Alumni (Retired)

For those of you following along, thank you, you can find the solution to last week's challenge (challenge #23) is HERE.

This week's challenge will use the predictive time series tool called ARIMA. If you don't have the predictive tools you can find the installer at http://downloads.alteryx.com/downloads.html look for the link to "Predictive tools only". The predictive tools in Alteryx execute the analytics in an open source application called 'R', the advantage of using Alteryx vs. R is that Alteryx provides a straight-forward user interface and eliminates the need to program directly in the R language. If you want to read more about what is happening under the hood, here is a link to the Wiki on ARIMA. https://en.wikipedia.org/wiki/Autoregressive_integrated_moving_average

The use case: A retailer would like to forecast how many units of a particular product will be purchased from their locations based on a historical trend.

The source data contains weekly data for 2012 and 2013 details how many units have been moved. Some of the data, however, is populated with NULL values. For the NULL values, please assign the monthly average. If the monthly average is also NULL, assign the annual average.

Objective: Forecast the number of units that will be sold in the six weeks following the available data.
Have fun!

challenge_24_start_file.yxmd

challenge_24_solution.yxmd

Intermediate | Join | Predictive Analysis | Preparation | Time Series | Transform

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alex
11 - Bolide

I arrived at the same answer, but I'm not sure it's the best answer. Based on the historical data, the forecast doesn't adjust for the drop off in sales each January. How would we configure the tool for a better answer? See spoilers below have the workflow plus what I came up when I exported to Tableau.

Spoiler

This is the data presented in Tableua plus the forecast solution that Tableau provided using the default settings.

Spoiler

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Nice work @alex! Here is Gene's solution (attached and screenshot below):

Spoiler

Tara McCoy

Share 1 LIKE Reply

SeanAdams
17 - Castor

same solution as @GeneR & @TaraM - just structured slightly differently.

challenge_24_SeanSolution.yxmd

Share 0 LIKES Reply

alexandra_hanna
7 - Meteor

Awsome! Forecasting made extremely easy with Alteryx. I've noticed you fed 100 periods into forecast plot and I only did 6, do you know why we still get the same results?

challenge_24_start_file.yxmd

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NicoleJohnson
15 - Aurora

My solution! I like these Time Series predictive tools, pretty intuitive (especially for someone who never uses predictive analytics!)

Spoiler

challenge_24_NicoleJohnson.yxmd

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estherb47
15 - Aurora

Spoiler

challenge_24_EHB_solution.yxmd

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Laurap1228
11 - Bolide

Slightly different to the solution provided

Spoiler

challenge_24_LP.yxmd

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LordNeilLord
15 - Aurora

I've not really explored the TS Tools (except TS Filler), I ended up with the same solution as other however, my forecast scores are correct but the confidence scores are slightly out and I can't see why?

▷ Spoiler

challenge_24_LNL.yxmd

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nick_ceneviva
11 - Bolide

Solution attached. Minor differences in the output for the confidence intervals as other people have noted.

challenge_24_Ceneviva.yxmd

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