



[Return to "Business Analyst" in the classroom](#)

# Combining Predictive Techniques

## REVIEW

## ANNOTATIONS 1

## HISTORY

### Meets Specifications

Dear Marwan,

Thank you for your kind note! I wish you success as well! You have done a fantastic job on this project! Please check the comments below and the annotation file for some suggestions. I hope you will find them useful.

Congratulations on completing this program! I wish you all the best and good luck in your future endeavors! 🎉

### Overall

**The write up is written clearly, in complete sentences, and without major typos.**

Excellent work! The write up is written clearly, in complete sentences, and without any typos. I really appreciate all of the efforts you put in to provide theoretical information just you did not need to do that. Normally when you present a report as a business analyst you would just need to present the analysis that you have done because the people you present it to care about the practical information they can use from it. But still again I really appreciate the hard work you have done here!

**Several visualizations are included. All visualizations are clearly labeled and help answer the related questions.**

Great job! All visualizations are clearly labeled and help answer the related questions.

## Task 1

Accurately identifies the correct number of formats and provides justification using the Adjusted Rand and CH indices.

Yes, the RAND and CH indices indicate that 3 clusters is optimal, so we chose 3 for the number of formats.

Identifies the correct number of stores that fall into each store format.

Provides one observation about the differences among clusters, and uses the results of the clusters to provide justification.

Excellent work providing observations about the difference among the clusters in terms of Dry Groceries sales and total sales.

Includes a map that shows the location of the stores, uses color to show cluster, and size to show total sales. A legend is used for both color and size.

The map looks great. Color is used to show the clusters and size is used to show total sales.

## Task 2

States the type of classification model used and adequately justifies the choice using at least one model comparison method.

Great job! Yes, the Boosted model should be used since it has a higher F1 score. F1 Score is the weighted average of Precision and Recall. Therefore, this score takes both false positives and false negatives into account. Here is a [link](#) if you want to look more into it. And if you are interested in learning more about the different tree models you can take a look at [this article](#).

Includes a table that correctly identifies the format for each of the 10 new stores.

## Task 3

Identifies the best ETS or ARIMA model to use, and justifies the decision by showing forecast error measurements against the holdout sample.

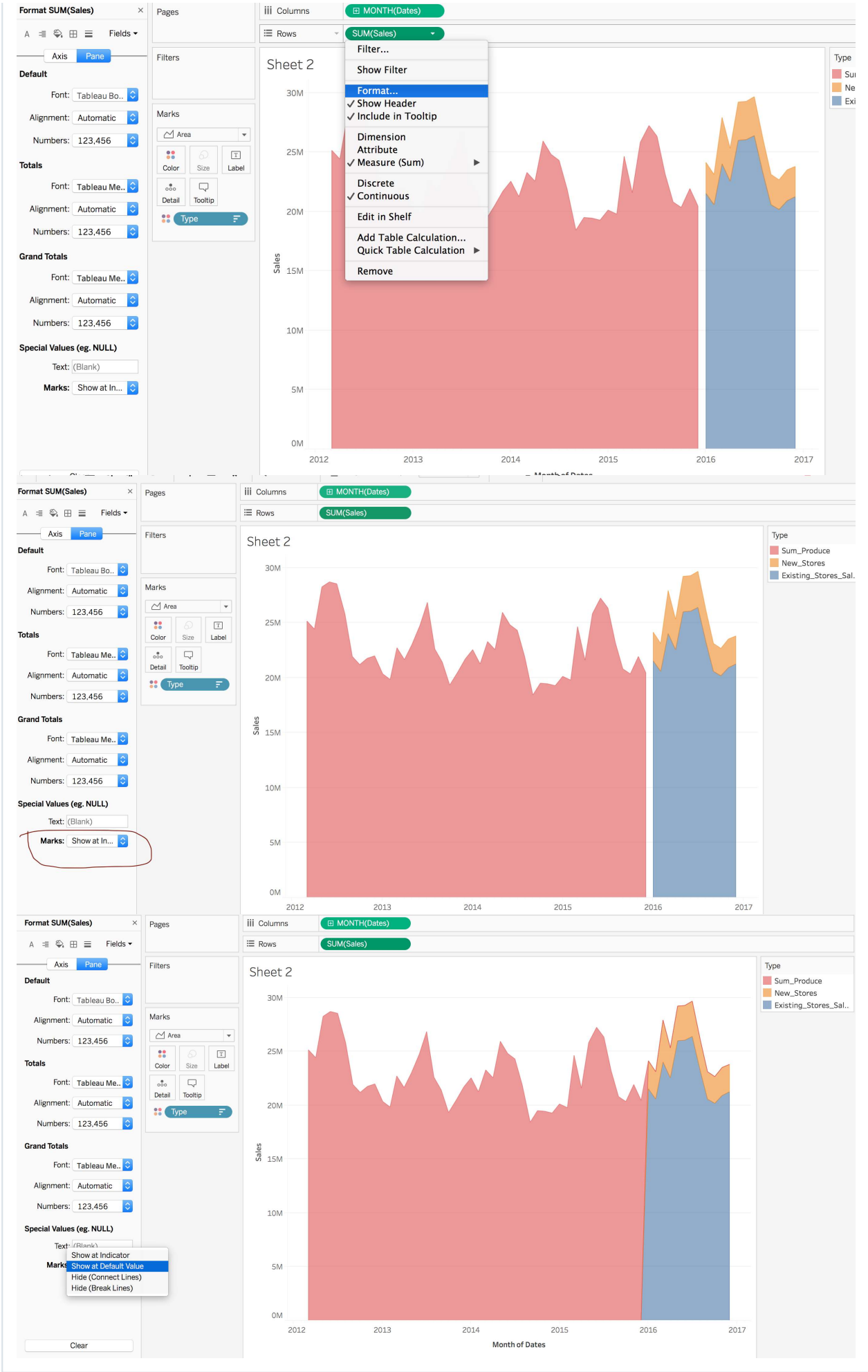
ETS(M,N,M) is the correct model! ETS type of model! Well done selecting ETS over ARIMA and justifying that choice by providing the forecast error measurements against the holdout sample.

Suggestion:

- Here you can read more about [Rule 6](#) that I have mentioned in the annotation file for ARIMA model.

A table with the correct 12 month forecasts for existing and new stores is provided. A visualization of your forecasts that includes historical data, existing stores forecasts, and new stores forecasts is provided.

The forecasts look within the expected range! Great job! Great job with the plot! By the way, if you are interested how to close the gap in the plot between the actual sales and the forecasted ones you can check this example:



 [DOWNLOAD PROJECT](#)

[RETURN TO PATH](#)

---