

Case 2

[Start Assignment](#)

Due Dec 2 by 11:59pm **Points** 100 **Submitting** a text entry box or a file upload

Case 2 Assignment:

Pick a pair of firms from the following list:

- Pair 1: Best Buy and Target
- Pair 2: CVS and Walgreens
- Pair 3: Tractor Supply and Lowe's Home Improvement
- Pair 4: Dollar General and Dollar Tree

Use foot traffic and quarterly financial statement data available in the Class Data folder on Google Drive to explore the following issues:

Pre-COVID Analysis (2018 and 2019):

- How strong was the relationship between foot traffic and quarterly sales for each company?
- Compare the pre-COVID relationship between foot traffic and sales across the two companies in your pair. Was the relationship stronger for one company versus the other? If so, offer some thoughts about why.
- Build models to predict quarterly sales using all but the last pre-COVID quarter. Use the models to predict sales for the final quarter in the pre-COVID period for each company. How close are the predictions?
- Compare the geographic footprint of the two companies in the pair. Do they largely overlap? Are there areas where one or the other company dominates - either in terms of number of locations or in terms of total foot traffic?

Post-COVID Analysis (2020 and 2021):

- How did COVID affect each company's foot traffic? How did it affect their sales? How did it affect the relationship between the two?
- Does it seem like either company shut locations due to COVID? If so, are such closures geographically concentrated? If both companies closed locations, did they do so in the same geographic locations?
- How did dwell times change during COVID for each company?


- How well does the model you built in the pre-COVID period predict sales in the post-COVID period?
- Try building a new model to predict sales in the post-COVID period. How well does it perform?

Case 2 Deliverables:

Your team should perform its analysis and document its conclusions *in a single CoLab notebook*. You can, of course, begin work in separate notebooks. However, the final deliverable should be a single notebook. The notebook should be well organized, with written discussion to explain and support any figures or other analysis that you include.

Grading will be based on the following:

1. How well did you answer the questions and communicate your conclusions in your notebook?
2. Good use of visualization?
3. How easy is it to follow your code?

Note: Teams will also complete peer evaluations to assess each teammate's contribution to the final product. These evaluations may result in individual students receiving fewer points for Case 3 than the raw number of points awarded to their team. Each team member will be asked to suggest what percentage of the raw case grade each of their teammates should receive. The lowest suggestion for each student will be dropped. The remaining suggestions will be averaged and applied to the raw case grade to calculate individual students' grades. See [an example calculation here](https://docs.google.com/spreadsheets/d/1FhOSUc8gol-Aqj3QUxXNyCnuDtvHt_NPjbdZ-3-oyXg/edit?usp=sharing)  (https://docs.google.com/spreadsheets/d/1FhOSUc8gol-Aqj3QUxXNyCnuDtvHt_NPjbdZ-3-oyXg/edit?usp=sharing). In cases where this procedure results in what I believe to be an unfair outcome, I reserve the right to modify the weight put on peer evaluations. Any such modification will result in higher (never lower) grades for individual students.

Company Brand IDs are as follows:

Best Buy (CIK:0000764478)

SG_BRAND_2c648ef84225e10f0499e7d255eacf71

SG_BRAND_c9deba94693f0dc718bbb1912d6f135d

Target (CIK:0000027419)

SG_BRAND_42aefbae01d2dfd981f7da7d823d689e

Dollar General (CIK:0000029534)

SG_BRAND_a4efb9d8ddf0f71207d49f713c5bc1e9

Dollar Tree (CIK:0000935703)

SG_BRAND_6b1e006c89aa3f8b054a05fa90581501

SG_BRAND_6db086b96ff72a99a60c4a182d90fe10

Lowe's (CIK:0000060667)

SG_BRAND_4f8a39fb928268edb1ab256922e436d7

SG_BRAND_3354020c8d1520194fa15623ee4e3a4d

Tractor Supply Co. (CIK:0000916365)

SG_BRAND_974825b578ac6df2330cf472fc2d9e57

CVS (CIK:0000064803)

'SG_BRAND_72f1a850d966375fa159121c7c8b09a1

'SG_BRAND_7adbbb50380d485c29258638e50c38ac

Walgreens (CIK:0001618921)

SG_BRAND_e18162f6fbe7ffc48f73af49ba89959f

SG_BRAND_63ea689e38887d2a25b1f57a6f86748f

SG_BRAND_33ef43259b465c12