# Test 2

## Test Details/Instructions

Worth: 33.3%

Due Date: June 16th, 2022 @ 11:59pm

### Submissions:

1. Your python notebook with all the codes to all the questions
2. Explanation of your results written as text in your python notebook
3. Submit your python notebook as: ***firstname\_lastname\_Test1***

### Questions:

You have been provided with stores sales data for 6 years by quarter. Please conduct the following exercises:

1. Using bootstrapping technique create a sample of 10,000 observations 24 times recording the means.
2. Treat your bootstrapping data as stores sales for your imaginary second store and properly formulate your hypothesis along with your conclusion i.e your null and alternative statements in comparison to the original store sales
3. Create a montecarlo simulation with 200 reps and 500 simulations to create a provide a 95% confidence on what % of target is achievable using the stats in the original dataset. HINT: you can manipulate the dataset as required