

GROUP PROJECT PART 1 FOR BUAI 492

(See the Syllabus for the Due Date)

The MutiSales Company has an inventory of different items each of whose weight, in kilograms, is given in column B of the data file *Project.xlsx* posted in Canvas (this list can change over time). Every morning, the Distribution Manger gets a list indicating how many of each item must be loaded onto trucks for distribution that day. The company has 6 trucks but not all of those trucks are necessarily available that day. The manager's list contains the weight capacities of the available trucks for that day (see, for example, column F). The goal of this project is to create a Python program that determines how to load the items that have to be shipped that day.

You will do this project in **two parts**: Part 1 is described here and Part 2 is described in the file *ProjectPart2.pdf*.

PROJECT PART 1

Solve the problem by hand (*without using Python*), as follows:

1. Propose a step-by-step approach—that is, an *algorithm*—to determine how to load the items that have to be shipped that day onto the available trucks. Turn in a Word document that lists the steps of your approach. ***Be sure you state your steps in sufficient detail because the TA will need to perform these steps.*** (35 points)
2. Given the number of items that must be shipped out today in column C of the worksheet in the file *project.xlsx* together with the weight capacities of the available trucks given in column F, show, in the EXCEL worksheet, the results obtained by using the procedure you developed in (1) above. (15 points)
3. On or before the due date listed in the syllabus, upload to *Canvas* a **Word file with your step-by-step procedure from part (1) and the EXCEL file *project.xlsx* with the results obtained in (2) above of using your procedure.**