MGMT 58600 Python Programming

Lab 1

# Lab Purpose:

The purpose of this lab is to provide an initial experience with Python and an opportunity to familiarize yourself with the Spyder IDE and general programming concepts.

# Lab Instructions:

## Description:

Krannert Specialty Motors is a unique auto dealer that sells both brand new and “lovingly driven” high-end automobiles. Shipment check-in is an important part of the business operations as well getting a quick overview as to the profitability of the shipment.

Your task will be to design, write, and implement a Python program that will check-in the five cars that are being delivered in this week’s shipment and also calculate potential gross profit (and adjusted based on type of car), as well as totals for cost, MSRP (manufacturer’s suggested retail price), potential gross profit, and potential adjusted gross profit.

As your program executes, it should:

1. As part of the check-in, prompt the user to enter the car name (e.g., Red 1969 Triumph TR6), MSRP (manufacturer’s suggested retail price), cost, and code of the type of car (0 = domestic or 1 = import) for each car
2. Once the check-in is complete, your program should then print out a summary of the shipment including:
   1. For each car … Car name, the MSRP, cost, potential gross profit for the car (you’ll need to calculate this), adjusted potential gross profit (you’ll need to calculate this … for domestic cars, there’s no expected adjustment, but for imports we expect to have to adjust the gross profit downward by 1.75% based on last year’s margins), and whether the car is domestic or import (the code should be converted to the word “domestic” or “import” accordingly).
   2. After printing out the individual information for each of the cars, you will them print out the totals for the shipment including:
      1. The total of the MSRPs for the five cars
      2. The total cost for the five cars
      3. The total potential gross profit of the five cars
      4. The total adjusted potential gross profit of the five cars

Note: This may best be accomplished by accumulating the various totals as you do the check-in (in 1 above) or perhaps as you print out the individual info for the cars (in 2a above)

For this assignment, do not worry about dollar signs for the various costs, prices, or profits.

Also, make sure to use comments to explain the various parts of your program.

# Grading Criteria

|  |  |
| --- | --- |
| **Element** | **Points** |
| Data entry and storage correct | 10 |
| Five cars and individual info printed correctly | 10 |
| Adjusted potential gross profit for each car calculated correctly | 10 |
| Car type converted correctly | 10 |
| Totals calculated correctly | 10 |
| Correctly printed totals | 10 |
| Program executes correctly | 20 |
| Comments | 20 |
| Total Points Possible | 100 |