Session Advanced Functions – Create IPO Chart and code for each problem below. Put the files in single folder M11 and named in the same manner as previous exercises. Post the folder in Github and put a link in Blackboard for the logic and program (code) entries.

1. The input consists of quantity, price and discount rate. Use a function to compute the discount amount and discounted price. Then, display these values in the main part of the program, along with the quantity and price. (The function should return both discount amount and discounted price).

Input	Process	Output
Arguments: qty, price, rate	Function: compute discount amount and discounted price	Return: discount amount and discounted price
qty, price, rate	call function	qty, price, discount amount and discounted price

2. Enter the student's last name and 3 exam scores. Use a function to compute the average and total points. This function should return both total points and average. Display student's last name, total points and average exam score.

Input	Process	Output
Arguments: exam 1, exam 2, exam 3	Function: compute average and total points	Return: average and total
last name, exam 1, exam 2, exam 3	call function	last name, total and average

3. Produce a sales report. Input salesperson last name and sales. Write a function that computes commission which is 10% for sales over $100, 000 and 5% for sales at or under $100,000. The function should also computer next year's target, which is 5% of the sales. This function should return both commission and next year's target. Display salesperson name, commission and next year's target.

Input	Process	Output
Arguments: commission, target	Function: compute commission (10% for over $100000 and 5% for under) and next year's target (5% of sales)	Return: commission and target

last name, sales	call function	last name, commission and target

4. Enter bowler's last name, 3 game scores and handicap. Write a function to compute average score and average score with handicap. In the main part of the program, display last name, average score and average score with handicap. *Bowling handicap info*

Input	Process	Output
Arguments: score 1, score 2, score 3, handicap	Function: compute average and average with handicap	Return: average and average with handicap
last name, score 1, score 2, score 3, handicap	call function	last name, average score and average score with handicap

5. Allow the user to enter quantity of an item and unit price. Write a function to compute total (qty * unit price) and tax (7% of total). Demonstrate your knowledge of global variables by making total and tax global scope. Display total and tax in main.

Input	Process	Output
Arguments: qty, unit price	Function: compute total and tax (7% of total)	Return: total and tax
qty, unit price	call function	total and tax