

Project 3

Objective:

The purpose of this lab project is to expose you to selection, and to expand your skills to write larger programs.

Problem Specification:

The Passaic County Catering and Convention Services modified the requirements for their billing program. They asked you to write a Python program to produce customers' bills. The program should read in the following data.

1. The number of adults attending.
2. The number of children attending.
3. A choice of an adult meal: the whole party will be served either standard or deluxe meal, Defined as constants and selected from a menu.
 - a. Cost for Deluxe meal \$25.95
 - b. Cost for Standard meal 21.75.
4. A choice of the hall (no hall fee, if catered at the person's home). Defined as constants and selected from a menu.
 - a. Hall – A \$1000.00
 - b. Hall – B \$850.00
 - c. Hall – C \$750.00
 - d. Hall – H is home
5. Added to the bill, is a 10% surcharge, on food cost only, if the catering is on a weekend.
6. Speedy discount: to induce customers to pay promptly, a discount is made, if payment is made within 10 days; the discount depends on the total bill. Discount is defined as constants
 - a. bill < \$1000.00 the discount is 2%
 - b. bill < \$2000.00 the discount is 4%
 - c. bill < \$5000.00 the discount is 5%
 - d. bill > \$5000.00 the discount is 7%
7. A deposit is required and will be deducted from final the bill.

Write a program and test it using data sets 1, 2, 3, and 4 from the following table:

Set	Count		Hall	Weekend	Type Meal	Speedy Payment	Deposit
	Adult	Child					
1	80	6	C	Y	Standard	Yes	2000.00
2	54	3	A	no	Deluxe	N	1000.00
3	24	15	B	Yes	Standard	no	500.00
4	5	25	H	N	Deluxe	y	350.00

Note: Data set-1 was used to produce the following sample output. Your report should be similar if not the same. **Please note that the values in the report below are not 100% accurate.**

Requirements:

- Use the shell as a guide.
- The function main () is called and should have all IPO statements.
- The cost per child's meal is (50% of the cost of the adult's meal).
- A 20 % for gratuity (applied only to the cost of food.)
- A 6.875 % sales tax applied to the subtotal of the bill excluding gratuity.
- Relevant data must be input with proper prompts and conversion functions.
- Generated at random, is a 3-digit invoice number for every customer.
- Use menus to display choices.

- [illegible]

[illegible]

- 5 points your name, Date, course #, Due Date, name of the program and explanations.
- 5 points All constants are defined correctly and used properly.
- 5 points The function main is called, and screen is paused.
- 5 points Appropriate and descriptive identifier names are used.
- 5 points Prompts are used for catering on weekend and for speedy payment.
- 5 points Menus are used to allow selection for each of the meal choice, and Hall choice.
- 5 points Programming standards (IPO) are followed.
- 5 points The format function and tabs are used to align output and print monies to 2 decimal spaces.
- 5 points Invoice number is stored in a variable, is correct and appears on the report.
- 5 points Proper headings and footings are displayed on the report.
- 5 points Report includes all relevant titles and data items.
- 15 points IF statements are used properly and are clear.
- 10 points Flowchart in full details is handed-in and is correct.
- 10 points Program is clear, runs correctly, and performs the specified task.

5 points Results of all data sets are submitted.

Submission Details:

In a zipped folder, named with your initials, last then first, submit the following files:

- Script
- Flowchart, Pseudo-code is not acceptable.
- Test results.

***** Due On: 11/25/2020 *****