

CMPS 150

Fall 2021

Programming Assignment #3

Date Assigned: Tuesday, September 28, 2021

Due Date: 11:55 PM, Sunday, October 3, 2021

Objectives:

- using Python IDLE environment, input/processing/output method, selection structures, formatted output

- 1) Include the following information as comments at the beginning of your source code. Name it **pa3.py**
BE SURE it lines up nicely as you see it below.

```
# Author:          Type-Your-Name
# ULID:           Type-Your-ULID
# Course/Section: CMPS 150 - Lecture Section # ____
# Assignment:     pa3
# Date Assigned:  Tuesday, September 28, 2021
# Date/Time Due:  Sunday, October 3, 2021 -- 11:55 pm
#
# Description:     This program calculates the total cost for television services
#                  based on a selected service plan and the number of months of
#                  service.
#
# Certification of Authenticity:
# I certify that this assignment is entirely my own work.
```

2) Description

This program determines the total cost for television services based on the service plan and the number of months of service. There are two connection types, Fiber and Standard Cable, each with different plans to choose from:

Fiber	
Available Plans	Cost per month
Fiber – Basic Plan	\$ 119
Fiber – Plus Plan	\$ 152
Fiber – Elite Plan	\$ 182

Standard Cable	
Available Plans	Cost per month
Cable – Basic Plan	\$ 99
Cable – Plus Plan	\$ 129

In addition to these monthly rates, every plan incurs a flat **\$50 installation fee**.

Your program will display a menu summarizing the plans described above (see sample run). It will then prompt the user to enter the type of connection: Fiber (F) or Cable (C) and the number of months of service. Based on the connection type entered, you code will prompt the user to select a plan: Basic (B), Plus (P), or Elite (E) if fiber is requested; Basic (B) or Plus (P) if standard cable is requested. Finally, the total cost of service, including the installation fee, is computed. A formatted summary of results is then displayed.

Input: Your program should work correctly for user input that is both uppercase and lowercase.

Formatted Output: All numerical data can be displayed as integers and should be aligned (right justified). Numerical output will not exceed 5 digits.

3) Sample Runs

Sample Run #1:

MENU OF CABLE OPTIONS

Connection	Plan	Price/month
Fiber	Basic	\$ 119 per month
	Plus	\$ 152 per month
	Elite	\$ 182 per month
Cable	Basic	\$ 99 per month
	Plus	\$ 129 per month

Input by the user
is indicated by text that is
bold, underlined & italicized.
NOTE: It will not be bold,
underlined, and italicized
when YOU run your program.

Do you want fiber or cable (F/C)? **F**
Enter the number of months of service: **10**

There are three Standard cable plans: Basic, Plus, and Elite.
Enter your plan (B/P/E): **E**

Summary of results

```
-----
Connection      Fiber
Plan             Elite
Months          10
Cost/month      $   182
Installation    $    50
Total Cost      $  1870
```

Sample Run #2:

MENU OF CABLE OPTIONS

Connection	Plan	Price/month
Fiber	Basic	\$ 119 per month
	Plus	\$ 152 per month
	Elite	\$ 182 per month
Cable	Basic	\$ 99 per month
	Plus	\$ 129 per month

Do you want fiber or cable (F/C)? **C**
Enter the number of months of service: **12**

There are two Standard cable plans: Basic and Plus.
Enter your plan (B/P): **b**

Summary of results

```
-----
Connection      Standard
Plan             Basic
Months          12
```

Code should work for
uppercase and lowercase user
input.

Cost/month	\$	99
Installation	\$	50
Total Cost	\$	1238

4) Upload to Moodle

Get in a browser and login to Moodle.

Go to your Lecture section on the Moodle site.

Click on the link for submission of Programming Assignment #3.

Select to “Add a Submission” then “Upload a File”

Select to “Choose a File” and go about the process of browsing/finding “**pa3.py**” on the computer.

Select to “Upload this File”

When returned to the Upload screen, MAKE SURE to click on the “Save Changes” button.

You will be returned to the “Programming Assignment #3” screen.

This time you should see your source code file listed on it.

5) Logout of Moodle

***You can turn in programs
up to 24 hours late for a maximum of 75% credit
or up to 48 hours late for a maximum of 50% credit***