Programming Assignment 6

Chapter 3

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#1 #2 #3 #5 will all be saved IN THE SAME  **lastnameP6.py**

#1 #2 #3 all should run! #5 is just a decision structure- make sure #5 is last

#4 will be a pic or a word doc.

You will zip your .py & your word doc/pic in 1 folder named lastnameP6.py and email to me.

1.) Write an **if/else** program that determines if a person is old enough to drink. (legal age we will assume 21)

# creating variables

age = 0.0

# creating constant named variables

legal\_age = 21

# prompting the user to enter their age

age = int(input('Enter current age: '))

# creatig if else statement to determine if the user's age is at the legal age to drink

# if the age is less than 21 the program will print out a message letting the user know they are not at the legal age to drink

if age < 21:

print('You are not at the legal age to drink.')

# this else statement will print out a message letting the user know they are at the legal age since the initial if statement did not pass

else:

print('You are old enough to drink.')

2.) Write an **if/else/elif** program that asks a user for their favorite color. Put a statement in that if the person chooses yellow the program will return “Yellow is also my favorite color” and if the person puts red it will say “Red is the color of my favorite roses.” For all other colors the response should be “That is an interesting color choice.” Test the program with yellow, red and two other colors.

# creating variables

favorite\_color = 0.0

y\_color = 'yellow'

r\_color = 'red'

# asking user to input their favorite color

favorite\_color = input('Please enter your favorite color: ')

# creating the if/else/elif statement

# checking whether the string inputed is equal to the stinr 'yellow'

if favorite\_color == y\_color:

print('Yellow is also my favorite color!')

# checking whether the string inputed is equal to the string 'red'

elif favorite\_color == r\_color:

print('Red is the color of my favorite roses!')

# otherwise any other color inputed will get another message

else:

print('That is an interesting color choice.')

3.) Write a program that asks a user for 2 numbers. If the numbers total more than 100 tell them their numbers are greater than 100, if they total less than 100 tell them their numbers total less than 100.

# creating variables

first\_number = 0.0

second\_number = 0.0

total = 0.0

# prompting the user to enter two numbers

first\_number = int(input('Enter first number: '))

second\_number = int(input('Enter second number: '))

total = first\_number + second\_number

# creating the if statment to check whether the sum of the two numbers is greater than 100

# calculating the total of the two numbers

# checking if the total is greater than 100

if total > 100:

print('The numbers you entered total more than 100!')

else:

print('The numbers you entered total less than 100!')

4.) Draw a flowchart for the each of the decision structures in Questions 1, 2, 3

\*you can include a snapshot or use a program to draw the flowcharts

Diagram

Description automatically generatedDiagram

Description automatically generatedDiagram

Description automatically generated

5.) In the book page 155. Wi-Fi Diagnostic Tree. This is an if/else program. NOTHING ELSE. Follow the diagram (page 156) and write the decision structure. You are not declaring variables**, you are only writing the Decision** **Structure of the program**. You should NOT have any “answers” in your program.

You should only have :

* + If statements
  + Else statements
  + Print statements
  + Response statements

print('Reboot the computer and try to connect.')

if input('Did that fix the problem? ') == 'yes':

print('done')

else:

print('Reboot the router and try to connect.')

if input('Did that fix the problem? ') == 'yes':

print('done')

else:

print('Make sure the cables between the router & modem are plugged in firmly.')

if input('Did that fix the problem? ') == 'yes':

print('done')

else:

print('Move the router to a new location and try to connect.')

if input('Did that fix the problem? ') == 'yes':

print('done')

else:

print('Get a new router.')