

OOP_PCOM7E September 2022 Object Oriented Programming

Unit 1 An Introduction to Python Programming and the OO Programming Paradigm

e-Portfolio Activities

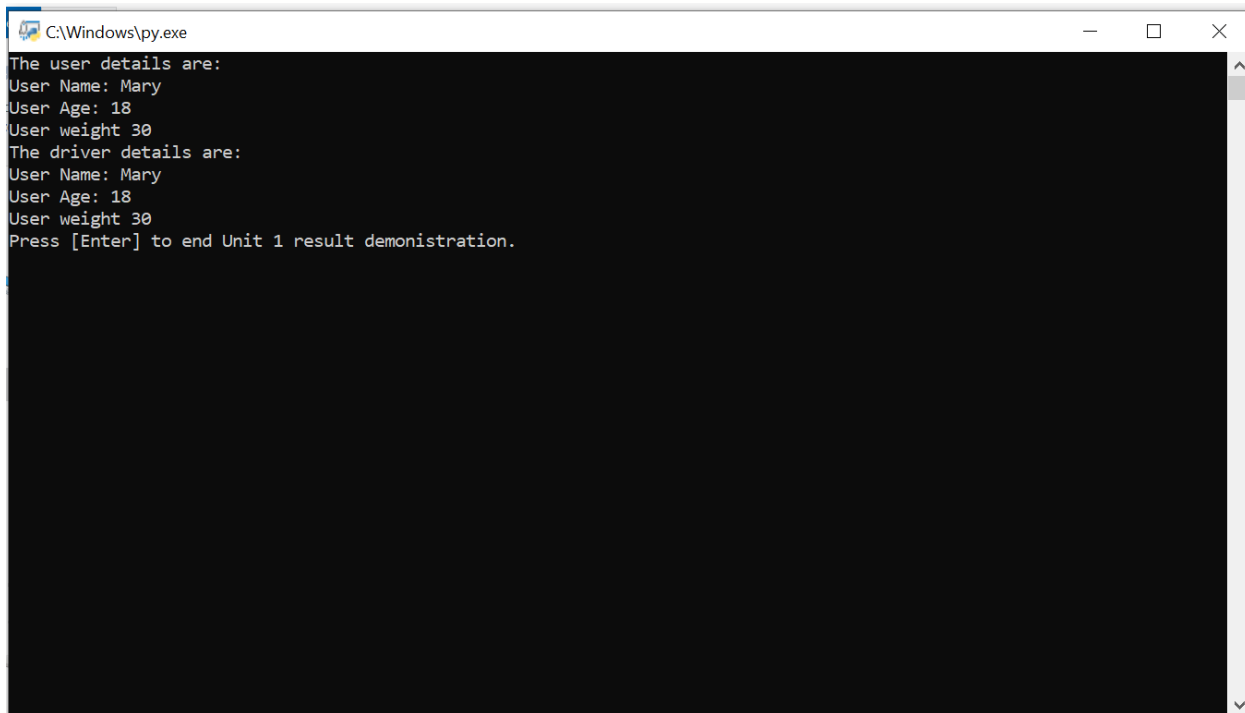
Develop a Python program and apply protected and unprotected variables within it.

You can share your work with your tutor for formative feedback

Notes to reader:

In this exercise, the program is written in using protected variables

Result



```
C:\Windows\py.exe
The user details are:
User Name: Mary
User Age: 18
User weight 30
The driver details are:
User Name: Mary
User Age: 18
User weight 30
Press [Enter] to end Unit 1 result demonstration.
```

Program

```
# super class with variables named as "name", "age" and "weight"
class USER:
    def __init__(self, name, age, weight):
# make the attribtes as protected variable by use "_"
        self._name = name
        self._age = age
        self._weight = weight

# Write a function in superclass
    def displayU(self):
        print("The user details are:")
        print("User Name:", self._name)
        print("User Age:", self._age)
        print("User weight", self._weight)

# create a sub-class with the same variable names, i.e. "name", "age" and "weight"
class DRIVER(USER):
    def __init__(self, name, age, weight):
#Matching the variables of sub-class to those of the super-class the superclass
        USER.__init__(self, name, age, weight)
    def displayD(self):
        print("The driver details are:")
        print("User Name:", self._name)
        print("User Age:", self._age)
        print("User weight", self._weight)

# Now set an object that belongs to the sub-class
d_mary = DRIVER("Mary", 18, 30)

# using function of super-class
d_mary.displayU()

# using function of sub-class
d_mary.displayD()
```