Week 6: Assignment

Submit Assignment

Due Aug 11 by 11:59pm   **Points** 100   **Submitting** a file upload

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Content   Media   Discussion   **Assignment**   Quiz

Instructions

Please make a python module called week_6_homework.py and put the answers to the problems below in it. All the problems below ask you to write functions or classes. Put **only** the functions in the file "week_6_homework.py" do not put any testing code in that file. To test your functions, create another python file week_6_homework_test.py. In this file you can import that functions from your homework file as follows:

```
import week_6_homework as w6h

# then we can test the functions/classes like so:

result = w6h.my_function()
print(result)

object_instance = w6h.My_class()
```

Please write the following functions. ***Make sure you name the functions/classes exactly as typed below.***

Problem 1

Create a vehicle parent class that has the methods `drive` and `stop`, and the properties `weight` and `horsepower`. Then create three child classes: `Car`, `Motorcycle`, and `Truck`. `Car` will have the property wheels, equal to 4. `Motorcycle` will have the wheel property set to 2, and the method `wheelie`. `Truck` will have the property wheels set to 6, and will have the method 'dump'. These methods can just print what they are doing, i.e print('I am now stopping…).

Problem 2

Create a class called NumericList that behaves just like a list except it has an additional method called `product` that will calculate the product of the items in the list. This will only work on lists that only consist of floats or ints. Don't worry about checking the type of each item in the list.

```python
import week_6_homework as w6h


my_list = w6h.NumericList((1, 2, 3))
print(my_list.product())
# this should print out 6
```

Problem 3

Copy the customer class from the customer.py file that is part of this week's material. Add the method 'get_first_purchase' which will return the value of the first purchase the customer has made. Also add the method 'get_num_purchases' which will return the number of purchases the customer has made. Also add 'get_sum_of_purchases' which will return the sum of all the purchases the customer as made.

Submission

Each problem is worth 30 points, and you get 10 points for turning something in (that is completely blank). Click on the blue button in the top right corner to submit your assignment. Submit the file with the functions, week_6_homework.py

Click Next (below) to progress through the course.