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1 Object Initialization - Lab

1.1 Introduction

In this lab, you'll practice defining classes with `__init__` methods. You'll define two classes, `Driver` and `Passenger` in the cells below.

1.2 Objectives

In this lab you will:

- Create instance variables in the `__init__` method
- Use default arguments in the `__init__` method

1.3 Initializing Instance Objects

Start off by defining the `Driver` class, similar to as you've done before. This time, define an `__init__` method that initializes a driver with the attributes `first`, `last`, and `occupation` for their first name, last name, and occupation. Provide a default argument of `"driver"` for `occupation`.

```
[3]: # Define Driver class here
class Driver:
    def __init__(self, first = None, last = None, occupation = "driver"):
        self.first = first
        self.last = last
        self.occupation = occupation
```

Now, initialize a driver with the first name `"Dale"` and last name `"Earnhardt"`.

gif from Nascar

```
[5]: dale_earnhardt = Driver(first = "Dale", last = "Earnhardt") # Initialize Dale␣
     ↪Earnhardt here
print(dale_earnhardt.first) # "Dale"
print(dale_earnhardt.last) # "Earnhardt"
print(dale_earnhardt.occupation) # "driving"
```

```
Dale
Earnhardt
driver
```

Next, define the `Passenger` class. Using the `__init__` method, ensure all instances contain the attributes `first`, `last`, `email`, and `rides_taken` for their first name, last name, email, and number of rides they have taken. Provide the `__init__` method with the default argument of `0` for the `rides_taken` attribute since new passengers should not have taken any rides.

```python
[6]: # Define Passenger class here
class Passenger:
    def __init__(self, first=None, last=None, email=None, rides_taken=0):
        self.first = first
        self.last = last
        self.email = email
        self.rides_taken = rides_taken
```

Now that you've defined a `Passenger` class, check it out by initializing a new passenger with the first name `"Jerry"`, the last name `"Seinfeld"`, and the email `"jerry.seinfeld@mailinator.com"`.

```python
[8]: # Initialize Mr. Seinfeld here
jerry = Passenger("Jerry", "Seinfeld", "jerry.seinfeld@mailinator.com", 0)
print(jerry.first) # "Jerry"
print(jerry.last) # "Seinfeld"
print(jerry.email) # "jerry.seinfeld@mailinator.com"
print(jerry.rides_taken) # 0
```

```
Jerry
Seinfeld
jerry.seinfeld@mailinator.com
0
```

Great work! Mr. Seinfeld is now in the system and ready to request a ride!

1.4   Summary

In this lab, you defined `__init__` methods that allowed you to initialize new instances with a set of predetermined attributes and default attributes.