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percipio28_class_defination.py

```python
# percipio28_class_defination.py
# Percipio video: Classes; Class Defination
# Demonstrate class definations
# A class represents some kind of object
nl = '\n'
#
class Base_Model(): # Naming a class which represents a base model of car.  Without inheritance, the parenthesis are empty.
    # When naming a class, convention is to use capital letters
    trim = 'normal'
    engine_liters = 1.5
#
# 01:12
# Class-defined methods (alot like functions) requiring an implicit parameter, self
# When the method is called, this parameter will be called on only the instance and will not be provided elsewhere
    def engine_sound(self):
        return 'putt, putt' # when the method 'engine_sound' is called, it returns the string 'putt, putt'

    def horn_sound(self):
        return 'beep, beep' # when the method 'horn_sound' is called, it returns the string'beep, beep'

    def __str__(self): # string method which you should define for the class and returns when 'coop' is called created below
        return 'Base Model' # string representing the return of entire class
# creation of class is complete
#
coop = Base_Model() # creates an instance of the class which is a object based upon created class
# print statement prints instance itself and class attribute
# In below printing, the 1st '%s' corresponds to the 1st 'coop', the 2nd '%s' corresponds to the 2nd coop.trim)
# data attributes
print('%s has %s trim level.' % (coop, coop.trim))
print('%s has a %s liter engine.' % (coop, coop.engine_liters))
# when referring to class methods, use empty parenthesis without arguements because the self is provided from the instance object itself

print('%s engine sounds like %s.' % (coop, coop.engine_sound()))
print('%s horn sounds like %s.' % (coop, coop.horn_sound()))
#
''' Results:
Base Model has normal trim level.
Base Model has a 1.5 liter engine.
Base Model engine sounds like putt, putt.
Base Model horn sounds like beep, beep.
'''
```