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# Exercise #

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# 1 #

# Create a class that represents a car with a name, number of seats, current speed, production number
and engine which

# is characterized by its horsepower and miles per gallon.

# The car should have a method of accelerating with an input of -1.0 to 1.0 that takes the engines horse-power into

# account (units, wind resistance etc. are irrelevant) and a method that formats its characteristics
name, car-type,

# production number and horse power as a string.


# 2 #

# Additionally, there should be a convertible specialization of car that has means to move its roof up
and down.

# There should be a print if the roof actually changes position.


# 3 #

# Start out with creating a Prius with 5 seats and an engine with 121hp / 53MPG as well as a Porsche
Boxster

# convertible with two seats, 265hp and 32MPG.

# Lower the roof of the Boxster and start racing the Prius with 20% acceleration each for the first one
to hit a speed

# of 200 (call acceleration method multiple times). Print the speeds of both cars after each
acceleration step


# 4 #

# Create a parking lot with methods to park and remove a car. The spots should be enumerated

# and the lot should maintain a directory which car is parked on which spot.

# If someone tries to park a car when the lot is at full capacity an error should be raised.


# 5 #

# Create a lot of size three and two more cars. Try to park all of the cars in the lot. Remove one when
the lot is

# already at full capacity when trying to park a new car.

# Finally, print the directory of the lot.
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