



Introduction to Python II (Exercises 05)

1) Create a class "vehicle" (Exploring simple classes)

- . The class contains one static variable `vehicle_terrain = "land"` (accessible by all instances of the class `vehicle`)

- . Add a initializer to the class. The initializer receives several parameters:

 - . number of wheels, number of passengers, `max_speed` (km/hour)

 - . The constructor also defines the attribute `speed`. To start the speed is initialize to zero.

- . Create a method called `current_speed()` that returns the current speed of the vehicle

- . Create a method called `set_speed(speed)` that sets the speed of the vehicle.

Once your Class is done, use it to create the following objects:

```
V01 = vehicle(4,2,100)
```

```
V02 = vehicle(6,4,75)
```

Print the `current_speed` of both vehicles

Set the speed of vehicle V01 to 90

Set the speed of vehicle V02 to 60

Print the `current_speed` of both vehicles

Print the value `vehicle_terrain` for both vehicles

2) Create two new classes `Motorcycle` and `Auto` that inherit from `vehicle`

Add a new attribute to this classes "color" and "brand"

Create the appropriate constructor (Initializer) for this classes.

Create an object of type `Motorcycle` and an object of type `Car`

Get the current speed for both objects

Set the speed of the `Motorcycle` to 95

Set the speed of the car to 100

Get the current speed for both the `Motorcycle` and the `Car`

Print the color and brands of the car and the color of the motorcycle objects