

Data Structure: VehicleState

Consider the following definition for a data structure called *VehicleState*:

A *VehicleState* is a **model**, **year**, **color**, and **price**

```
data vehicleState:  
  | vehicle(  model :: String,  
              year  :: Number,  
              color  :: String,  
              price  :: Number )  
end
```

To make instances of this structure, I would write:

_____ = _____

_____ = _____

Choose one of your above instances, and note which dot-accessors you would use to access each of its fields:

Which of the following are functions that *could* be written based on the data definition for **VehicleState**? Check all that apply

- ☐

```
# same-license : VehicleState, String -> Boolean
# Consumes a VehicleState and String, produces true if the
# given VehicleState's license plate is the same as the
# given String
```
- ☐

```
# how-old : VehicleState, Number -> Number
# consumes a VehicleState and a year. Produces the age of
# the vehicle by subtracting its year from the given year.
```
- ☐

```
# more-expensive : VehicleState, VehicleState -> Boolean
# consumes two VehicleStates and produces true if the first
# VehicleState is more expensive than the second
```
- ☐

```
# is-under-warranty : VehicleState -> Boolean
# Consumes a VehicleState, produces true if the given
# VehicleState has a mileage of less than 100,000 miles
```
- ☐

```
# paint-job : VehicleState -> VehicleState
# Consumes a VehicleState and produces a VehicleState which
# is the same as the given VehicleState, but painted red
```