

# Haskell example for Assignment 2

# Example: cars!

```
data Colour = Blue | Red | Yellow
data Price  = Price Int
data Car    = Car Colour Price String
data Fleet  = Empty | AddCar Car Fleet
```

ind.  
def.  
of  
Colour

- Blue  $\in$  Colour
- Red  $\in$  Colour
- Yellow  $\in$  Colour

$n \in \text{Int}$   
Price  $n \in \text{Price}$

$c \in \text{Colour}$   $p \in \text{Price}$   $m \in \text{String}$   
Car  $c$   $p$   $m \in \text{Car}$

$c \in \text{Car}$   $f \in \text{Fleet}$   
AddCar  $c$   $f \in \text{Fleet}$

Empty  $\in$  Fleet  
(capital letter for constructor)



# Draw a tree for the fleet example

```
car0 = Car Red (Price 60000) "Lincoln Juggernaut"  
car1 = Car Yellow (Price 120000) "BMW Highsnoot"  
car2 = Car Blue (Price 10000) "Fiat Roadkill"  
fleet = AddCar car0 (AddCar car1 (AddCar car2 Empty))
```

