

```
1 #lang racket
2
3 (struct scoop (flavor))
4
5 (scoop "vanilla")
6
7 (scoop-flavor (scoop "chocolate"))
8
9 (struct cone (conetype scoop1 scoop2))
10
11 (cone "waffle" (scoop "vanilla") (scoop "chocolate"))
12
13 (define my-order (cone "waffle" (scoop "mint") (scoop "chocolate")))
14
15 my-order
16
17 (cone-conetype my-order)
18
19 (scoop-flavor (cone-scoop1 my-order))
20
21 ;; Auto-fill
22
23 (struct cone-2 (conetype scoop1 [scoop2 #:auto])
24   #:auto-value (scoop "none"))
25
26 (define my-order-2 (cone-2 "waffle" (scoop "mint")))
27
28 (cone-2-scoop1 my-order-2)
29
30 (cone-2-scoop2 my-order-2)
31
32 (scoop 10)
33
34 (struct scoop2 (flavor)
35   #:guard (lambda (flavor type-name)
36     (if (string? flavor)
37         flavor
38         (error type-name "Flavor is not a string!"))))
39 ;;(scoop2 #f)
40
41 (define flavors (list "cookie monster" "moose tracks" "vanilla"))
42
43 (struct scoop3 (flavor)
44   #:guard (lambda (flavor type-name)
45     (if (member flavor flavors)
46         flavor
47         (error type-name "Not a valid flavor!"))))
48
```

