#lang racket

(struct scoop (flavor))
(scoop "vanilla")
(scoop-flavor (scoop "chocolate"))

(struct cone (conetype scoop1 scoop2))
(cone "waffle" (scoop "vanilla") (scoop "chocolate"))

(define my-order (cone "waffle" (scoop "mint") (scoop "chocolate")))

my-order
(cone-conetype my-order)
(scoop-flavor (cone-scoop1 my-order))

;; Auto-fill

(struct cone-2 (conetype scoop1 [scoop2 #:auto])
  #:auto-value (scoop "none")

(define my-order-2 (cone-2 "waffle" (scoop "mint")))

(cone-2-scoop1 my-order-2)
(cone-2-scoop2 my-order-2)

(scoop 10)

(struct scoop2 (flavor)
  #:guard (lambda (flavor type-name)
    (if (string? flavor)
      flavor
      (error type-name "Flavor is not a string!"))))

(define flavors (list "cookie monster" "moose tracks" "vanilla"))

(struct scoop3 (flavor)
  #:guard (lambda (flavor type-name)
    (if (member flavor flavors)
      flavor
      (error type-name "Not a valid flavor!"))))