

Documentation for the `garb.rkt` teachpack

The teachpack `garb.rkt` contains structures and data definitions for *garb* and *customer*. Information on how to install teachpacks can be found on the course website.

1 Structure and data definitions

(define-struct garb (name material size))

:: A Garb is a (make-garb Str (anyof 'paper 'metal 'plastic) (anyof 'small 'medium 'large 'any))

(define-struct customer (name habitat size))

:: A Customer is a (make-customer Str (anyof 'land 'water 'air) (anyof 'small 'medium 'large))

2 Built-in data

To save you time, the teachpack includes the definition of many constants. You are welcome to create more definitions along with the functions that you create for labs and assignments.

(define hat-s (make-garb "small hat" 'paper 'small))

(define crown-s (make-garb "small crown" 'metal 'small))

(define tiara-s (make-garb "small tiara" 'plastic 'small))

(define hat-m (make-garb "medium hat" 'paper 'medium))

(define crown-m (make-garb "medium crown" 'metal 'medium))

(define tiara-m (make-garb "medium tiara" 'plastic 'medium))

(define hat-l (make-garb "large hat" 'paper 'large))

(define crown-l (make-garb "large crown" 'metal 'large))

(define tiara-l (make-garb "large tiara" 'plastic 'large))

(define hair-ribbon (make-garb "hair-ribbon" 'paper 'any))

(define pin (make-garb "pin" 'metal 'any))

(define band (make-garb "band" 'plastic 'any))

(define mammal-s (make-customer "small mammal" 'land 'small))

(define fish-s (make-customer "small fish" 'water 'small))

(define bird-s (make-customer "small bird" 'air 'small))

(define mammal-m (make-customer "medium mammal" 'land 'medium))

(define fish-m (make-customer "medium fish" 'water 'medium))

(define bird-m (make-customer "medium bird" 'air 'medium))

(define mammal-l (make-customer "large mammal" 'land 'large))

(define fish-l (make-customer "large fish" 'water 'large))

(define bird-l (make-customer "large bird" 'air 'large))