

Documentation for the office.ss teachpack

The teachpack `office.ss` contains structures and data definitions for storing hierarchical offices. Information on how to install teachpacks can be found on the course Web site.

1 Structure and data definitions

```
(define-struct office (name jobs olist))  
;; An (office-tree) is either  
;;   a string or  
;;   a structure (make-office n j o), where  
;;     n is a string,  
;;     j is a natural number, and  
;;     o is an office-list.  
  
;; An office-list is either  
;;   empty or  
;;   (cons o ol), where  
;;     o is an office-tree and  
;;     ol is a office-list.
```

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 fire1 (make-office "Fire Station 1" 20 empty))  
(define fire2 (make-office "Fire Station 2" 20 empty))  
(define fire3 (make-office "Fire Station 3" 20 empty))  
(define fire (make-office "Fire" 5 (list fire1 fire2 fire3)))  
(define police (make-office "Police" 30 empty))  
(define safety (make-office "Public Safety" 40 (list fire "Dogcatcher" police)))  
(define grounds (make-office "Grounds" 40 empty))  
(define equipment (make-office "Equipment" 40 empty))  
(define garbage (make-office "Garbage" 40 empty))  
(define recycling (make-office "Recycling" 40 empty))  
(define leaf (make-office "Leaf Collection" 40 empty))  
(define composting (make-office "Composting" 40 empty))  
(define waste (make-office "Waste" 40 (list garbage recycling leaf composting)))  
(define works (make-office "Public Works" 40 (list grounds equipment waste)))  
(define library (make-office "Library" 40 empty))  
(define parks (make-office "Parks" 40 empty))  
(define centres (make-office "Community Centres" 40 empty))
```

(define services (*make-office* "Services" 40 (*list library parks "Juggler" centres*)))
(define manager (*make-office* "Town Manager" 40 (*list services works safety*)))
(define council (*make-office* "Town Council" 40 (*list manager "Attorney"*)))