STREAMS: KEY ABSTRACTIONS

Constructor

(cons-stream <car-item> <cdr-item>) ; <cdr-item> wrapped with promise
the-empty-stream ; equivalent to nil or ()

Selectors

(stream-car <stream>) ; calls in promise to “force” computation
(stream-cdr <stream>) ; likewise

Other abstractions

(stream-ref <stream> n) ; gets nth item of stream (0 is first item)
(stream-map <proc> <stream>) ; creates new stream with <proc>
; mapped to each item
(stream-filter <pred> <stream>) ; new stream with items that pass <pred>
(add-streams <s1> <s2>) ; new stream with corresponding items
; from s1 and s2 added together
(mul-streams <s1> <s2>) ; same but with multiplication
(display-stream <stream>) ; walks down stream printing each item