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**Questions 1-4** 

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Questions 1-2 2/2 points (graded)

Let's complete the design of <code>insert-string</code> that we saw in the previous video.

```
;; String ListOfString -> ListOfString
;; insert string in correct place in los (in ascending order)
;; ASSUME: los is already sorted
;(define (insert-string str los) los) ;stub
```

What is the result of the following check-expects?

```
(check-expect (insert-string "Apple" empty) _
C empty
C "Apple"
€ (cons "Apple" empty)
```

#### **Explanation**

Inserting "Apple" into an empty list should give us the one element list (cons "Apple" empty)

```
(check-expect (insert-string "Sally" (cons "Apple" (cons "Systematic" empty))) _____)
\mathbf{C} (cons "Sally" (cons "Apple" (cons "Systematic" empty)))
 \textbf{ (cons "Apple" (cons "Sally" (cons "Systematic" empty)))} \\
C (cons "Systematic" (cons "Sally" (cons "Apple" empty)))
 ~
```

## **Explanation**

"Sally" should go after "Apple" and before "Systematic"



**1** Answers are displayed within the problem

### Questions 3-4

2/2 points (graded)

The function body is similar to insert that you saw in this video. You may want to look at string>=? to make sure you understand what it does?

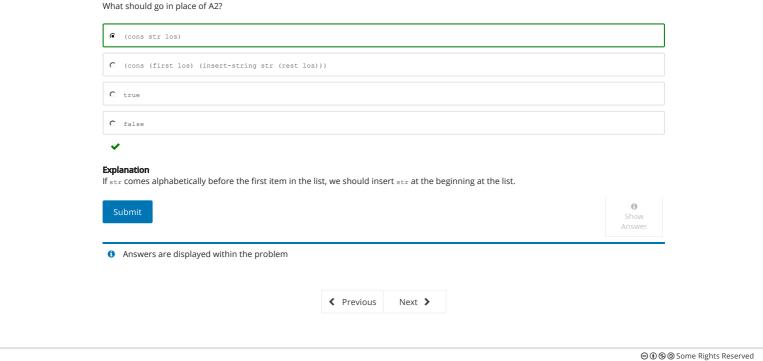
```
(define (insert-string str los)
  (cond [(empty? los)(cons str empty)]
         (if (string>=? str (first los))
             A2)]))
```

What should go in place of A1?

```
C (cons str los)
⑥ (cons (first los) (insert-string str (rest los)))
\mathbf{C} (insert-string str (rest los))
{f C} (insert-string str (rest los))
```

# **Explanation**

If str comes alphabetically after the first item of the list, we should insert str somewhere in the rest of the list and keep the first item in front of that.





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