

Solution Review: Concatenate Words Starting With 'c'

This lesson gives a detailed solution review of the challenge in the previous lesson.

We'll cover the following

- Solution:
- Explanation

Solution:

```
fn test(my_str:String)-> String {
    let mut my_updated_string = "".to_string();
    for word in my_str.split(" "){
        if word.starts_with("c"){
            my_updated_string.push_str(word);
            my_updated_string.push(' ');
        }
    }
    my_updated_string.pop();
    my_updated_string
}

fn main(){
    let my_str= "This is a comprehensive course in Rust programming language on Educative. Read it";
    println!("Original String: {}", my_str);
    let updated_string = test(my_str.to_string());
    println!("Updated String: {}", updated_string);
}
```

Explanation

- On **line 1**, a String object `my_str` is passed as an argument.
- On **line 2**, `my_updated_string` of type `String` is initialized with the value null.
- On **line 3**, the string is traversed using a `for` loop that splits on whitespace using the `.split` method.
 - On **line 4 to line 7**, within the `for` loop, an `if` condition checks if the starting letter of the word (splitted on space) is `c` using the `starts_with()` method, then

`starts_with()` method, then

- appends the word in `my_updated_string` on **line 5**.
- appends the space in `my_updated_string` on **line 6**.
- On **line 9**, the appended space at the end is removed by using the `pop` function.
- After the loop terminates the variable `my_updated_string()` is returned.

The following illustration explains the above concept:

The string is shortened just to give you an idea of how this code executes.

```
This is a comprehensive course
```

Output:

1 of 33

```
This is a comprehensive course
```

Output:

2 of 33

```
This is a comprehensive course
```

Output:

```
This is a comprehensive course
```

Output:

```
This is a comprehensive course
```

```
whitespace found
```

```
word starts with c? => No
```

Output:

```
This is a comprehensive course
```

Output:

```
This is a comprehensive course
```

Output:

```
This is a comprehensive course
```

```
whitespace found
```

```
word starts with c? => No
```

Output:

8 of 33

```
This is a comprehensive course
```

Output:

9 of 33

```
This is a comprehensive course
```

```
whitespace found
```

```
word starts with c? => No
```

Output:

10 of 33

```
This is a comprehensive course
```

Output:

11 of 33

This is a comprehensive course

Output:

12 of 33

This is a comprehensive course

Output:

13 of 33

This is a comprehensive course

Output:

14 of 33

This is a comprehensive course

Output:

15 of 33

This is a comprehensive course

Output:

16 of 33

This is a comprehensive course

Output:

17 of 33

This is a comprehensive course

Output:

18 of 33

This is a comprehensive course

Output:

19 of 33

This is a comprehensive course

Output:

20 of 33

This is a comprehensive course

Output:

21 of 33

This is a comprehensive course

Output:

22 of 33

This is a comprehensive course

Output:

23 of 33

```
This is a comprehensive course
```

Output:

24 of 33

```
This is a comprehensive course
```

```
    whitespace found
```

```
word starts with c? => Yes => append the word to the string
```

```
my_updated_string = comprehensive
```

Output:

25 of 33

```
This is a comprehensive course
```

```
my_updated_string = comprehensive
```

Output:

26 of 33

```
This is a comprehensive course
```

```
my_updated_string = comprehensive
```

Output:

27 of 33


```
This is a comprehensive course
```

```
my_updated_string = comprehensive
```

Output:

28 of 33

```
This is a comprehensive course
```

```
my_updated_string = comprehensive
```

Output:

29 of 33

```
This is a comprehensive course
```

```
my_updated_string = comprehensive
```

Output:

30 of 33

```
This is a comprehensive course
```

```
my_updated_string = comprehensive
```

Output:

31 of 33

```
This is a comprehensive course
```

```
end of string found
```

```
word starts with c? => Yes => append the word  
to the string and return the string
```

```
my_updated_string = comprehensive course
```

Output:

32 of 33

Output: comprehensive course

33 of 33

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[]

Now that you have learned about Strings, let's learn about a growable array called "Vectors" in the next chapter.