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# 10/20/2021
# The goal of this activity was to introduce us to how string sequences work. We worked on st
#  It was hard combining input with ifs and string sequences
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Module Six Lesson One Practice Activity

String Sequences

- **Accessing string characters with index**
- Accessing substrings with index slicing
- Iterating through characters of a string
- More string methods

Student will be able to

- **Work with string characters by index**
- Slice strings into substrings
- Iterate through string characters
- Use string methods

Concept: Accessing a Single String Character

view video

Addressing a string index

Strings are sequences of characters. Another common sequence type used in this course is a **list**. Sequences index items counting from 0 for the first item.


```
# assign string to student_name
student_name = "Alton"
# first character is at index 0
student_name[0]
```

Examples

```
# [ ] review and run example - note the first element is always index = 0
student_name = "Alton"
print(student_name[0], "<-- first character at index 0")
print(student_name[1])
print(student_name[2])
print(student_name[3])
print(student_name[4])
```

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A <-- first character at index 0
l
t
o
n
```

```
# [ ] review and run example
student_name = "Jin"
if student_name[0].lower() == "a":
    print('Winner! Name starts with A:', student_name)
elif student_name[0].lower() == "j":
    print('Winner! Name starts with J:', student_name)
else:
    print('Not a match, try again tomorrow:', student_name)
```

```
Winner! Name starts with J: Jin
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# [ ] review and run ERROR example
# cannot index out of range
student_name = "Tobias"
print(student_name[5])
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Task 1: Work with individual string characters

Remember: The first character in a string is at **index 0**.

```
# [ ] assign a string 5 or more letters long to the variable: street_name
# [ ] print the 1st, 3rd and 5th characters
street_name = "Capstreet"
print(street_name[0])
print(street_name[2])
print(street_name[4])
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# [ ] Create an input variable: team_name - ask that second letter = "i", "o", or "u"
# [ ] Test if team_name 2nd character = "i", "o", or "u" and print a message
# note: use if, elif and else
team_name = input('Second should = "i", "o", or "u"')

if team_name.isalpha():
  if team_name[1] == "i" :
    print('Second letter is "i"')
  elif team_name[1] == "o" :
    print('Second letter is "o"')
  elif team_name[1] == "u" :
    print('Second letter is "u"')
  else:
    ('Put a team that has "i", "o", or "u" as its second letter')
else:
  pass
```

```
Second should = "i", "o", or "u"dude
Second letter is "u"
```

Concept: Using a Negative Index

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Access the end of a string using -1

Strings assign an **index** number address to each string character

- First character in a string is index 0
- Last character in a string is index **-1**

 negative string index counts from the end

To access the last character in a string:

```
student_name[-1]
```

Examples

access the last character with the -1 index

negative index counts back from the last character in a string

```
# [ ] review and run example
student_name = "Joana"

# get last letter
end_letter = student_name[-1]
print(student_name,"ends with", "'" + end_letter + "'")
```

```
Joana ends with 'a'
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```
# [ ] review and run example
# get second to last letter
second_last_letter = student_name[-2]
print(student_name,"has 2nd to last letter of", "'" + second_last_letter + "'")
```

```
Joana has 2nd to last letter of 'n'
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```
# [ ] review and run example
# you can get to the same letter with index counting + or -
print("for", student_name)
print("index 3 =", "'" + student_name[3] + "'")
print("index -2 =","'" + student_name[-2] + "'")
```

```
for Joana
index 3 = 'n'
index -2 = 'n'
```

Task 2

```
# [ ] assign a string 5 or more letters long to the variable: street_name
# [ ] print the last 3 characters of street_name
street_name = "jonny boy"
print(street_name[3:4:])
```

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```
# [ ] create and assign string variable: first_name
first_name = "Jimmy"
# [ ] print the first and last letters of name
print(first_name[0], first_name[-1])
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Task 3: Fix the errors

```
# [ ] Review, Run, Fix the error using string index
shoe = "tennis"
# print the last letter
print(shoe[-1])
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