Assignment 1

What is the output of the following code? ```python my_string = 'hello' print(my_string[1:3]) ```

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How can you check if a particular element exists in a list in Python? Provide an example.

list1 = ['Krish', 'Kunal']

if 'Krish' in list1:

```
print('Krish is present in list1')

else:

print('not found')
```

Explain the difference between append() and extend() methods in Python lists with examples.

APPEND METHOD

append is used to add specific element at the end of list.
append adds element as a single unit resulting in nested list.

Example

```
list2 = ['Krish', 'Kunal']

list2.append(['iNeuron', 'AI'])

list2
```

output is : ['Krish', 'Kunal', ['iNeuron', 'AI']]

EXTEND METHOD

extend is used to add specific element at the end of list.
extend adds element by concatenating with main list

Example

list3 = ['Krish', 'Kunal']

list3.append(['iNeuron', 'AI'])

list3

output is : ['Krish', 'Kunal', 'iNeuron', 'AI']

Write a Python code to reverse a given string using slicing.

string1 = 'kiaN hsirK'

string1[::-1]

output is : 'Krish Naik'

Consider a list: my_list = [3, 7, 2, 8, 4]. What would be the output of my_list[-2]?

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How would you extract every third element from a list in Python? Provide an example.

Extract 3rd element from list

There are many methods to perform this action in python.
we are going to extract third element by using for loop and range function.

Example

```
list4 = [0,1,2,3,4,5,6,7,8,9,10,11]


for i in range(0,len(list4),3):

print(i)

output is : 0 3 6 9
```

Explain the concept of negative indexing in Python lists with an example.

Negatve Indexing

Negative indexing is the method of accessing the elements from end of list.
It starts from -1 mean last element.
-2 mens second last element, and so on.

Example

```
list5 = [0,1,2,3,4,5,6]
```

list5[-1]

output is : 6

list5[-2]

output is : 5

What is the output of the following code? ```python my_string = 'hello' print(my_string.index('l')) ```

2 (index of first occurance)

Write a Python code to find the maximum and minimum element in a given list.

list6 = [0,1,2,3,4,5,6]

max(list6)

output is : 6

min(list6)

output is : 0

Explain the difference between remove() and pop() methods in Python lists with examples.

Remove method

remove() is used to remove specific element from list.
element to be removed is must be provided in parantheses.

Example

list7 = [0,1,4,2,3,2,4,5,6]

list7.remove(4)

output is : [0,1,2,3,2,4,5,6]

Pop method

pop() is used to pop out element at specific index from list.
if index is not specified, by default last element is poped out.

Example

list8 = [0,1,4,2,3,2,4,5,6]

list8.pop(4)

output is : [0,1,4,2,2,4,5,6]