JAISHMA_CODING_CHALLENGE_4 – 16/06/2020

PYTHON CODE

Task 1:

Given a two list. Create a third list by picking an odd-index element from the first list and even index elements from second.

For Example:

```
listOne = [3, 6, 9, 12, 15, 18, 21]

listTwo = [4, 8, 12, 16, 20, 24, 28]
```

Expected Output:

```
Element at odd-index positions from list one

[6, 12, 18]

Element at even-index positions from list two

[4, 12, 20, 28]

Printing Final third list

[6, 12, 18, 4, 12, 20, 28]
```

Solution:

```
listOne = [3, 6, 9, 12, 15, 18, 21]
listTwo = [4, 8, 12, 16, 20, 24, 28]
listThree = list()
oddElements = listOne[1::2]
print("Element at odd-index positions from list one")
print(oddElements)
```

```
EvenElement = listTwo[0::2]
print("Element at even-index positions from list two")
print(EvenElement)
print("Printing Final third list")
listThree.extend(oddElements)
listThree.extend(EvenElement)
print(listThree)
```

----------**********----------

Task 2:

Given an input list removes the element at index 4 and add it to the 2nd position and also, at the end of the list

For example: List = [54, 44, 27, 79, 91, 41]

Expected Output:

```
Original list  [34, 54, 67, 89, 11, 43, 94]
List After removing element at index 4  [34, 54, 67, 89, 43, 94]
List after Adding element at index 2  [34, 54, 11, 67, 89, 43, 94]
List after Adding element at last  [34, 54, 11, 67, 89, 43, 94, 11]
```

Solution:

```
sampleList = [34, 54, 67, 89, 11, 43, 94]

print("Original list ", sampleList)
element = sampleList.pop(4)
print("List After removing element at index 4 ", sampleList)

sampleList.insert(2, element)
print("List after Adding element at index 2 ", sampleList)
```

```
sampleList.append(element)
print("List after Adding element at last ", sampleList)
```

----------**********----------

Task 3:

Given a list slice it into a 3 equal chunks and rever each list

For Example: `sampleList = [11, 45, 8, 23, 14, 12, 78, 45, 89]`

Expected Outcome:

```
Original list  [11, 45, 8, 23, 14, 12, 78, 45, 89]
Chunk  1 [11, 45, 8]
After reversing it  [8, 45, 11]
Chunk  2 [23, 14, 12]
After reversing it  [12, 14, 23]
Chunk  3 [78, 45, 89]
After reversing it  [89, 45, 78]
```

Solution:

```
sampleList = [11, 45, 8, 23, 14, 12, 78, 45, 89]
print("Original list ", sampleList)
length = len(sampleList)
chunkSize  = int(length/3)
start = 0
end = chunkSize
```

```
for i in range(1, 4, 1):
        indexes = slice(start, end, 1)
  listChunk = sampleList[indexes]
  print("Chunk ", i , listChunk)
  print("After reversing it ", list(reversed(listChunk)))
  start = end
  if(i != 2):
        end +=chunkSize
  else:
        end += length - chunkSize
```

****
