

Assignment 4

1. WAP to print a new list which contains first letter of list present in following list:

`list_states = ['GOA', 'RAJASTHAN', 'KARNATAKA', 'GUJRAT', 'MANIPUR', 'MADHYA-PRADESH']`

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Code and Output:

```
list_states = ['GOA', 'RAJASTHAN', 'GUJRAT', 'KARNATAKA', 'MANIPUR', 'MADHYA-PRADESH']
new_list = []
for i in list_states:
    new_list.append(i[0])
print(f'List after printing 1st character of each string: {new_list}')
```

List after printing 1st character of each string: ['G', 'R', 'G', 'K', 'M', 'M']

2. WAP to print integer values in place of string of the following list. Replaced Integer value should be the sum of each character of that particular string.

`list = ['Ganga', 'Tapi', 'Kaveri', 'Yamuna', 'Narmada']`

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Code and Output:

```
list1 = ['Ganga', 'Kaveri', 'Tapi', 'Yamuna', 'Narmada']
sum_list = []
for i in list1:
    sum1 = 0
    for j in i:
        sum1 += ord(j)
    sum_list.append(sum1)
print(f'List after printing ASCII values for each string: {sum_list}')
```

List after printing ASCII values for each string: [478, 610, 398, 619, 692]

3. WAP which runs at 9:00 AM, 14th April 2020.

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Code:

```
import time
import datetime
run_at_time = datetime.datetime(2020,4,14,9,0,0,0)
while datetime.datetime.now() < run_at_time :
    time.sleep(1)
    if datetime.datetime.now() == run_at_time:
        print(run_at_time)
        date_list = list(run_at_time.timetuple())
        print(date_list)
```

4. Given a following tuple:

tuple = ('a', 'l', 'g', 'o', 'r', 'i', 't', 'h', 'm')

I. Print the whole tuple using concept of slicing

II. Print a tuple after deleting the 3rd element.

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Code and Output:

```
tuple_1 = ('a', 'l', 'g', 'o', 'r', 'i', 't', 'h', 'm')
print(f'Whole tuple: {tuple_1[0:]})
tuple_1 = tuple_1[0:3] + tuple_1[4:]
print(f'Tuple after removing 3rd element: {tuple_1})
```

Whole tuple: ('a', 'l', 'g', 'o', 'r', 'i', 't', 'h', 'm')

Tuple after removing 3rd element: ('a', 'l', 'g', 'r', 'i', 't', 'h', 'm')

5. Take a list REGex=[1,2,3,4,5,6,7,8,9,0,77,44,15,33,65,89,12]. Store following in two separate lists.

- print only those numbers greater than 20
- then print those numbers those are less than 10 or equal to 10

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Code and Output:

```
list1 = [1, 2, 3, 4, 5, 6, 7, 8, 9, 0, 77, 44, 15, 33, 65, 89, 12]
list2 = []
list3 = []
for i in list1:
    if i > 20:
        list2.append(i)
for j in list1:
    if j <= 10:
        list3.append(j)
print(f'List of values greater than 20: {list2}')
print(f'List of values less than or equal to 10: {list3}')
```

List of values greater than 20: [77, 44, 33, 65, 89]

List of values less than or equal to 10: [1, 2, 3, 4, 5, 6, 7, 8, 9, 0]