

1MCA-A PYTHON Programming

02-08-2023(Wednesday 09-11AM)

Regular lab Questions - Q2

Q2: Demonstrate Lists and Dictionary comprehensions

1. LIST

Write a PYTHON script with List comprehension for the following

- Is the given list divisible by 3 or NOT?
- Square of even numbers in a list
- Sum of digits of all EVEN numbers in a list
- Remove duplicate numbers in a list

Solution:

```
num=[12,87,23,12,45,23,12,76,56]

new=[i for i in num if i%3==0]
print("the number divisible in list are: " ,new)

even =[ i for i in num if i%2==0 ]
print("the even number in list are: ",even)
square=[]
for i in even:
    square.append(i*i)
print("the square of even numbers are: " ,square)

var=0
for i in even:
    var+=i
print("the sum of even number are : ", var)

duplicate=[]
for i in num:
    if i in duplicate:
        continue
    else:
        duplicate.append(i)
print("list after removing duplicate are :", duplicate)
```

output

the number divisible in list are: [12, 87, 12, 45, 12]

the even number in list are: [12, 12, 12, 76, 56]

the square of even numbers are: [144, 144, 144, 5776, 3136]

the sum of even number are : 168

list after removing duplicate are : [12, 87, 23, 45, 76, 56]

2. Dictionary

Create a dictionary to store the details of your company employees (name as key and birthdate as value).

```
{ 'Virat Kohli': '5 November 1988', 'Umesh Yadav': '25 October 1987', 'Manish Pandey':  
'10 September 1989', 'Rohit Sharma': '30 April 1987', 'Ravindra Jadeja': '6 December  
1988', 'Hardik Pandya': '11 October 1993' }
```

Write a function birthDate() that takes the full name of your employees(as a string) and displays the given employee's birthdate.

```
>>>birthDate('Rohit Sharma')
```

```
'30 April 1987'
```

```
dictionary={"mushabbar ahmed":"28 nov 2002","hashim":"18 12 2007","mubashir  
ahmed":"29 6 1995","Virat Kohli": "5 November 1988", "Umesh Yadav": "25  
October 1987", "Manish Pandey":  
"10 September 1989", "Rohit Sharma": "30 April 1987", "Ravindra Jadeja": "6  
December 1988", "Hardik Pandya": "11 October 1993"}  
def birth(name):  
    print(dictionary[name])  
birth("mushabbar ahmed")
```

output:

```
28 nov 2002
```