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

In [ ]:
```python
lst1 = [78, 81, 88, 90, 102, 105 ,120, 88, 120, 78]
```

In [ ]:
```python
lst2=[]
lst22=[]
lst2 = [x for x in lst1 if x%3==0]
lst22 = [x for x in lst1 if x%3!=0]
print("The numbers divisible by 3 are:", lst2)
print("The numbers not divisible by 3 are:", lst22)
```

```
The numbers divisible by 3 are: [78, 81, 90, 102, 105, 120, 120, 78]
The numbers not divisible by 3 are: [88, 88]
```

Square of even numbers in a list

In [ ]:
```python
lst3 = []
lst3 = [x*x for x in lst1 if x%2==0]
print("Square of even numbers in the list are:", lst3)
```

```
Square of even numbers in the list are: [6084, 7744, 8100, 10404, 14400, 7744, 14400, 6084]
```

Sum of digits of all EVEN numbers in a list

In [ ]:
```python
lst4 = []
mainsum = 0
for x in lst1:
    if x%2==0:
        sum = 0
        while x!= 0:
            d = x%10
            sum += d
            x= int(x/10)
        lst4.append(sum)
        mainsum += sum

print("Sum of digits of all even numbers in a list is:", mainsum)
```

```
Sum of digits of all even numbers in a list is: 80
```

Remove duplicate numbers in a list

In [ ]:
```python
unqlst5=[]
for x in lst1:
    if x not in unqlst5:
        unqlst5.append(x)
print("Unique numbers in the list are:", unqlst5)
```

```
Unique numbers in the list are: [78, 81, 88, 90, 102, 105, 120]
```

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'

In [ ]:
```python
dict1= {
    'Harsh Sonker': '14 November 2001' ,
    'Aman': '25 October 1998',
    'Anupam Pandey': '8 August 2000',
    'Pradeep Singh': '30 April 1997',
    'Rohan': '25 May 1995',
    'Nischay Agarwal': '1 April 2004'
}
```

In [ ]:
```python
def birthDate(name):
    if name in dict1:
        print(dict1[name])
    else:
        print("Name not found in the dictionary.")

print("Enter the full name of the employee")
name = input()
birthDate(name)
```

Enter the full name of the employee
14 November 2001