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# 1. LIST
# Write a PYTHON script with List comprehension for the following
# • Is the given list divisible by 3 or NOT?

listItems = [1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20]
#listItems = [9,21,12]

result = [num for num in listItems if num % 3 == 0]

if len(result) == len(listItems):
    print("Divisible by 3")
else:
    print("Not Divisible by 3")

# • Square of even numbers in a list
even_numbers = [num for num in listItems if num % 2 == 0]
print("Even numbers:", even_numbers)
# def square(even_numbers):
#     return [i ** 2 for i in even_numbers]
square = [i ** 2 for i in even_numbers]

print("Square of numbers are", square)

# • Sum of even numbers in a list
sum_of_digits = sum(even_numbers)
print("The sum of digits of all even numbers in the list is:",
sum_of_digits)

# • Remove duplicate numbers in a list
list2 = [1, 2, 4, 2, 1, 4, 5, 1, 2, 1, 44, 14]
print("Original List: ", list2)
res = list(set(list2))

print("List after removing duplicate elements: ", res)

Not Divisible by 3
Even numbers: [2, 4, 6, 8, 10, 12, 14, 16, 18, 20]
Square of numbers are [4, 16, 36, 64, 100, 144, 196, 256, 324, 400]
The sum of digits of all even numbers in the list is: 110
Original List: [1, 2, 4, 2, 1, 4, 5, 1, 2, 1, 44, 14]
List after removing duplicate elements: [1, 2, 4, 5, 44, 14]

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

def birthDate(employee_name):
    dict1 = {'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

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Pandya': '11 October 1993'}  
    if employee_name in dict1:  
        return dict1[employee_name]  
    else:  
        return 'Error: Employee not found.'  
birthDate(input("Enter the Employee Full Name"))  
'5 November 1988'
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