LIST COMPREHENSION

Assignment 4.1

1. **Print all the even numbers between 0 and 20 .**

Ans:

even=[ele for ele in range(0,20,2)]

print("Even numbers are: ",even)

o/p

Even numbers are: [0, 2, 4, 6, 8, 10, 12, 14, 16, 18]

2. **Display all the numbers between 0 and 100 which are divisible by both 2 and 5.**

Ans:

nlist=[ele for ele in range(0,100,2) if ele%5==0]

print("Numbers divisible by 2 and 5 are: " ,nlist)

o/p

Numbers divisible by 2 and 5 are: [0, 10, 20, 30, 40, 50, 60, 70, 80, 90]

3. **Print even or odd for all the numbers from 0 to 30**

Ans:

even_odd = ["even" if ele % 2 == 0 else "odd" for ele in range(30)]

print("Numbers are in:",even_odd)

o/p

Numbers are in: ['even', 'odd', 'even', 'odd', 'even', 'odd', 'even', 'odd', 'even', 'odd', 'even', 'odd', 'even', 'odd', 'even', 'od
d', 'even', 'odd', 'even', 'odd', 'even', 'odd', 'even', 'odd', 'even', 'odd', 'even', 'odd', 'even', 'odd']

4. **Display the lists in the following manner ['HiJohn', 'HiAllen', 'HiKelly', 'Good MorningJohn', 'Good MorningAllen', 'Good MorningKelly']**

   List1=['Hi','Good Morning']
   List2=['John','Allen','Kelly']

Ans:

list1 = ['Hi', 'Good Morning']

list2 = ['John', 'Allen', 'Kelly']

result = [greeting + name for greeting in list1 for name in list2]

print(result)

o/p

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['HiJohn', 'HiAllen', 'HiKelly', 'Good MorningJohn', 'Good MorningAllen', 'Good MorningKelly']
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5. **Print the cube of the even numbers between 5 and 10.**

Ans:

even=[(ele**3) for ele in range(5,10,2)]

print("Even numbers are: ",even)

o/p

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Even numbers are:  [125, 343, 729]
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