**List and dictionary comprehensions**

**Syntax :**

[Expression for item in list if condition]

For item in list:

If condition:

Expression

**Example :** A = [x for x in list if x%2==0]

**Without Using Dictionary Comprehension**

numbers = range(10)

new\_dict\_for = {}

# Add values to `new\_dict` using for loop

for n in numbers:

if n%2==0:

new\_dict\_for[n] = n\*\*2

print(new\_dict\_for)

**Using Dictionary Comprehension**

**Example1:**

numbers = range(10)

new\_dict\_for = {}

new\_dict\_comp = {n:n\*\*2 for n in numbers if n%2 == 0}

**Example2 :**

dict1 = {'a': 1, 'b': 2, 'c': 3, 'd': 4, 'e': 5}

# Double each value in the dictionary

double\_dict1 = {k:v\*2 for (k,v) in dict1.items()}

print(double\_dict1)

**Without Using List Comprehension**

li = [1,2,3,4,5,6,7,8,9]

res = []

for i in li:

if i%2==0:

res.append(i\*\*2)

print("Resulting element in List=",res)

**Using List Comprehension**

li = [1,2,3,4,5,6,7,8,9]

res = [i\*\*2 for i in li if i%2==0]

print("Resulting element in List=",res)