**Assignment 3.2**

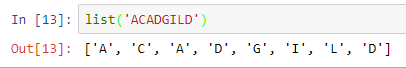
Problem​ ​Statement

**Write List comprehensions to produce the following Lists**

**Solution :**

['A', 'C', 'A', 'D', 'G', 'I', ’L’, ‘ D’]

list('ACADGILD')



2.

['x', 'xx', 'xxx', 'xxxx', 'y', 'yy', 'yyy', 'yyyy', 'z', 'zz', 'zzz', 'zzzz']

['x', 'y', 'z', 'xx', 'yy', 'zz', 'xx', 'yy', 'zz', 'xxxx', 'yyyy', 'zzzz']

[[2], [3], [4], [3], [4], [5], [4], [5], [6]]

[[2, 3, 4, 5], [3, 4, 5, 6], [4, 5, 6, 7], [5, 6, 7, 8]]

[(1, 1), (2, 1), (3, 1), (1, 2), (2, 2), (3, 2), (1, 3), (2, 3), (3, 3)]

stringToJoin = "XYZ"

# need to print ['x', 'xx', 'xxx', 'xxxx', 'y', 'yy', 'yyy', 'yyyy', 'z', 'zz', 'zzz', 'zzzz']

pattern1 = [ch\*j for ch in stringToJoin for j in range(1,5)]

print(pattern1)

# need to print ['x', 'y', 'z', 'xx', 'yy', 'zz', 'xxx', 'yyy', 'zzz', 'xxxx', 'yyyy', 'zzzz']

pattern2 = [ch\*j for j in range (1,5) for ch in stringToJoin]

print(pattern2)

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

# need to print [[2], [3], [4], [3], [4], [5], [4], [5], [6]]

pattern3 = [[nl + j] for nl in numericList for j in range(0,4) if nl > 1]

print(pattern3)

# need to print [[2, 3, 4, 5], [3, 4, 5, 6], [4, 5, 6, 7], [5, 6, 7, 8]]

pattern4 = [[nl + j for j in range(0,4)] for nl in numericList if nl > 1]

print(pattern4)

# need to print [(1, 1), (2, 1), (3, 1), (1, 2), (2, 2), (3, 2), (1, 3), (2, 3), (3, 3)]

pattern5 = [(nl, j) for j in range(1,4) for nl in range(1,4) ]

print(pattern5)

