

1. Consider a 2D list storing student's name along with their marks. Use list comprehension to create another list comprising names of students with marks greater than 85.

```
def comprehendlist(arr):
    newlist = [x for x in arr if x[1] > "85"]
    print(newlist)

def startingPoint():
    rows = int(input("Enter number of rows: "))
    cols = int(input("Enter number of cols: "))
    arr=[]
    for i in range(cols):
        col = []
        name = input("Enter names : ")
        marks = input("Enter marks : ")
        col.append(name)
        col.append(marks)
        arr.append(col)
    print(arr)
    comprehendlist(arr)

if __name__ == "__main__":
    startingPoint()
```

```
↳ Enter number of rows: 2
Enter number of cols: 2
Enter names : kanishk
Enter marks : 34
Enter names : pooja
Enter marks : 56
[['kanishk', '34'], ['pooja', '56']]
[]
```

2. WAP that takes a list of marks as an input from the user and creates a dictionary storing marks and the corresponding frequency as key-value pairs.

```
def frequency(marksList):
    freq = {}
    for mark in marksList:
        if mark in freq:
            freq[mark] += 1
        else:
            freq[mark] = 1
    return freq
```

```
def startingPoint():
    marks = []
    num = int(input("Enter size of list : "))
    for _ in range(0, num):
        mark = input("Enter mark : ")
        marks.append(mark)
```

```

    mark = int(input("Enter the marks : "))
    marks.append(mark)
    print(marks)
    print(frequency(marks))

```

```

if __name__ == "__main__":
    startingPoint()

```

```

    Enter size of list : 5
    Enter the marks : 34
    Enter the marks : 29
    Enter the marks : 23
    Enter the marks : 36
    Enter the marks : 40
    [34, 29, 23, 36, 40]
    {34: 1, 29: 1, 23: 1, 36: 1, 40: 1}

```

3. WAP that takes a list of names as an input from the user and creates a dictionary storing word-length as key-value pair for each word given in the list.

```

def createDict(lst):
    res_dct = {}
    print(num)
    for i in range(0, num):
        res_dct[lst[i]] = len(lst[i])
    return res_dct

```

```

def startingPoint():
    names = []
    num = int(input("Enter total number of names: "))
    for i in range(0, num):
        name = input("Enter the name: ")
        names.append(name)
    print(names)
    print(createDict(names))

```

```

if __name__ == "__main__":
    startingPoint()

```

```

    Enter total number of names: 5
    Enter the name: sumit
    Enter the name: somya
    Enter the name: vivek
    Enter the name: kanishk
    Enter the name: sahuo
    ['sumit', 'somya', 'vivek', 'kanishk', 'sahoo']
    4
    {'sumit': 5, 'somya': 5, 'vivek': 5, 'kanishk': 7}

```

