In [4]:
```
##### Python Basic Questions ####
```

In [5]:
```
# 1. Find sum of list elements
```

In [17]:
```
# 1st Approach

l = [1, 2, 3, 4, 5]
def sum_of_list(lst):
    return sum(lst)
print(sum_of_list(l))
```

```
15
```

In [18]:
```
# 2nd Approach

lst = [45,75,34,85,12,98]
a=0
for i in lst:
    a += i
print(f"The sum of all elements of the following list is: {a}")
```

```
The sum of all elements of the following list is: 349
```

In [19]:
```
# 2. Largest element in a list
```

In [21]:
```
a = [1, 22, 3, 45, 5, 105, 25]
b=max(a)
print(b)
```

```
105
```

In [22]:
```
# 3. Remove Duplicates in a list
```

In [25]:
```
lst1 = [1, 5, 3, 6, 3, 5, 6, 1]
lst2 = []
for i in lst1:
    if i not in lst2:
        lst2.append(i)

print("The list after removing duplicates : " + str(lst2))
```

```
The list after removing duplicates : [1, 5, 3, 6]
```

In [26]:
```
# 4. Check if all elements in a list are unique
```

In [27]:
```
b = [1, 3, 4, 6, 7]

print("The original list is : " + str(b))

dup = True

for i in b:
    if b.count(i) > 1:
        dup = False
        break
if(dup):
    print(f"List contains all unique elements")
```

```
else:
    print(f"List does not contains all unique elements")
```

```
The original list is : [1, 3, 4, 6, 7]
List contains all unique elements
```

In [28]:
```
# 5. Program to reverse list
```

In [32]:
```
lst = [10, 11, 12, 13, 14, 15]
lst.reverse()
print("The list after reversing looks like:", list(reversed(lst)))
```

```
The list after reversing looks like: [10, 11, 12, 13, 14, 15]
```

In [33]:
```
# 6. Count no of odd n even numbers in a list
```

In [35]:
```
c = [10, 21, 4, 45, 66, 93, 1]
even_count, odd_count = 0, 0
for num in c:
    if num % 2 == 0:
        even_count += 1
    else:
        odd_count += 1

print("Even numbers in the list: ", even_count)
print("Odd numbers in the list: ", odd_count)
```

```
Even numbers in the list:  3
Odd numbers in the list:  4
```

In [36]:
```
# 7. Check if a list is subset of another list
```

In [37]:
```
def subset(l1,l2):

    for i in l2:
        if i in l1:
            continue
        else:
            return False
    return True

d = [9, 4, 5, 8, 10]
e = [10, 5, 4]
print(subset(d,e))
```

```
True
```

In [38]:
```
# 8. Max diff btw two consecutive elements in a list
```

In [41]:
```
def max_consecutive_diff(lst):
    max_diff = 0
    for i in range(1, len(lst)):
        diff = abs(lst[i] - lst[i-1])
        if diff > max_diff:
            max_diff = diff
    return max_diff

lst = [1, 7, 3, 10, 5]
print("The maximum difference between two consecutive elements in the list is:",
```

```
The maximum difference between two consecutive elements in the list is: 7
```

In [42]:
```
# 9. Merge Multiple dictionaries
```

In [43]:
```
dict_list = [{'a': 66, 'b': 68}, {'c': 70, 'd': 72}, {'e': 74, 'f': 74}]
merged_dict = {}
for d in dict_list:
    merged_dict.update(d)
print(merged_dict)
```

```
{'a': 66, 'b': 68, 'c': 70, 'd': 72, 'e': 74, 'f': 74}
```

In [44]:
```
# 10. Find words frequency in a sentence
```

In [45]:
```
def word_frequency(sentence):
    words = sentence.split()
    frequency = {}
    for word in words:
        if word in frequency:
            frequency[word] += 1
        else:
            frequency[word] = 1
    return frequency

sentence = "The weather right now is cloudy in Bhopal and it might start raining
print(word_frequency(sentence))
```

```
{'The': 1, 'weather': 1, 'right': 1, 'now': 1, 'is': 1, 'cloudy': 1, 'in': 2,
'Bhopal': 1, 'and': 1, 'it': 1, 'might': 1, 'start': 1, 'raining': 1, 'the': 1,
'afternoon': 1}
```

In [ ]:
```

```