In [1]:
```
''' 1. Write a Python code block that inputs numbers into a list.
Print the largest, smallest, the sum, and the average of the numbers. Count
a=[]
n=int(input("Enter list size "))
print("Enter elements in list:")
for _ in range(n):
    a.append(int(input()))
print(f"Largest num: {max(a)}\nSmallest num: {min(a)}")
print(f"Sum of numbers {sum(a)}")
print(f"Average of numbers: {sum(a)/n}")
num=int(input("Enter number to search: "))
print(f"Occurences of {num} in the list = {a.count(num)}")
```

```
Enter list size 5
Enter elements in list:
1
2
3
3
4
Largest num: 4
Smallest num: 1
Sum of numbers 13
Average of numbers: 2.6
Enter number to search: 3
Occurences of 3 in the list = 2
```

In [2]:
```
''' 2. Write a Python code block to create a tuple with five elements.
Try to change one of the elements and handle the error that occurs. Print a
a=[]
print("Enter 5 elements")
for _ in range(5):
    a.append(input())
t=tuple(a)
print(f"Trying to replace {t[2]} with Hello")
try:
    t[1]="Hello"
except TypeError:
    print("Error occured: Tuple is immutable hence cannot modify its element
```

```
Enter 5 elements
1
2
3
4
5
Trying to replace 3 with Hello
Error occured: Tuple is immutable hence cannot modify its elements
```

In [3]:
```
''' 3. Write a Python code block to create a dictionary of cricket World Cup
 the value is the country that won the World Cup that year. Print the name o
 Display the unique list of countries that have won the World Cup.'''
winners={1975:"West Indies",
         1979:"West Indies",
         1983:"India",
         1987:"Australia",
         1992:"Pakistan",
         1996:"Sri Lanka",
         1999:"Australia",
         2003:"Australia",
         2007:"Australia",
         2011:"India",
         2015:"Australia",
         2019:"England",
         2023:"Australia"}
record={}
for x in winners.values():
    if x in record: record[x]+=1
    else: record[x]=1
print("Best performing country is:")
for x in record:
    if(max(record.values())==record[x]): print(x)
print("Displaying unique list of countries that have won the World Cup:")
for x in record: print(x)
```

```
Best performing country is:
Australia
Displaying unique list of countries that have won the World Cup:
West Indies
India
Australia
Pakistan
Sri Lanka
England
```

In [4]:
```
''' 4. Write a Python code block that inputs a sentence from the user.
Count the frequency of each word in the sentence and store the result in a d
Prints the dictionary with words as keys and their frequencies as values.'''
s=input("Enter a sentence: ").split()
freq={}
for x in s:
    if x in freq: freq[x]+=1
    else: freq[x]=1
print(freq)
```

```
Enter a sentence: I am yahoo hehe uwu uwu
{'I': 1, 'am': 1, 'yahoo': 1, 'hehe': 1, 'uwu': 2}
```

In [5]:
```
''' 5. Write a Python code block to input numbers into two sets.
Perform union, intersection, and difference operations on the sets and print
a=set(input("Enter numbers in first set: ").split())
b=set(input("Enter numbers in second set: ").split())
print(f"Set A = {a}\nSet B = {b}")
print("Union of the two sets = ",a.union(b))
print("Intersection of the two sets = ",a.intersection(b))
print("Difference between the two sets(first set - second set) = ",a.differe
```

```
Enter numbers in first set: 1 2 3 4 5
Enter numbers in second set: 4 5 6 7
Set A = {'3', '5', '4', '1', '2'}
Set B = {'4', '6', '5', '7'}
Union of the two sets =  {'3', '5', '7', '4', '6', '1', '2'}
Intersection of the two sets =  {'4', '5'}
Difference between the two sets(first set - second set) =  {'3', '1', '2'}
```