1. Write a Python program to check whether a list contains a sublist.

In [1]:
```
def is_sublist(l,s):
    sub_list = False
    if s == []:           #(True logic for empty Sublist)
        sub_list = True
    elif s == l:          #(True logic for same List & Sublist)
        sub_list = True
    elif len(s) > len(l): #(False logic for sublist items is more than List items
        sub_list = False

    else:
        for i in range(len(l)): #(Compare each item at sublist with list items)
            if l[i] == s[0]:
                n = 1
                while (n < len(s)) and (l[i+n] == s[n]):
                    n += 1
                if n == len(s):
                    sub_list = True
        return sub_list

a = [2,4,3,5,7]
b = [4,3]
c = [3,7]

print(is_sublist(a,b))
print(is_sublist(a,c))
```

```
True
False
```

2. Write a Python program to find common items from two lists.

In [2]:
```
color1 = "Red", "Green", "Orange", "White"
color2 = "Black", "Green", "White", "Pink"
print("Common items from both list:", (set(color1) & set(color2)))
```

```
Common items from both list: {'Green', 'White'}
```

3. Write a Python program to get the difference between the two lists

In [3]:
```
list1 = [1, 2, 3, 4]
list2 = [1, 2]
new_list1 = list(set(list1)-set(list2))
new_list2 = list(set(list2)-set(list1))
new_list = new_list1 + new_list2
print("New List of difference between given lists: ",new_list)
```

```
New List of difference between given lists:  [3, 4]
```

4. Write a Python program to generate all permutations of a list in Python

In [4]:
```
import itertools

Input = [1, 2, 3]

combi = list(itertools.permutations(Input))

print("Possible combinations list for the given list:", combi)
```

```
Possible combinations list for the given list: [(1, 2, 3), (1, 3, 2), (2, 1, 3),
(2, 3, 1), (3, 1, 2), (3, 2, 1)]
```

5. Write a Python program to remove duplicates from a list.

In [5]:
```
def remove(a):
    flist = []
    for x in a:
        if x not in flist:
            flist.append(x)
    return flist
a = [10,20,30,20,10,50,60,40,80,50,40]
print(remove(a))
type(a)
```

```
[10, 20, 30, 50, 60, 40, 80]
list
```

Out[5]: