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

Input a = [2,4,3,5,7] b = [4,3] c = [3,7] print(is_Sublist(a, b)) print(is_Sublist(a, c)) Output

In [1]:
```
def is_Sublist(lst, sublst):
    if len(sublst) == 0:
        return True
    if len(lst) == 0:
        return False
    if lst[:len(sublst)] == sublst:
        return True
    return is_Sublist(lst[1:], sublst)

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.

input color1 = "Red", "Green", "Orange", "White" color2 = "Black", "Green", "White", "Pink" output {'Green', 'White'}

In [2]:
```
def find_common_items(list1, list2):
    set1 = set(list1)
    set2 = set(list2)
    common_items = set1.intersection(set2)
    return common_items

color1 = ["Red", "Green", "Orange", "White"]
color2 = ["Black", "Green", "White", "Pink"]

common_colors = find_common_items(color1, color2)
print(common_colors)
```

```
{'Green', 'White'}
```

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

Input list1 = [1, 2, 3, 4] list2 = [1, 2] Output [3,4]

In [3]:
```
def get_list_difference(list1, list2):
    difference = list(set(list1) - set(list2))
    return difference

list1 = [1, 2, 3, 4]
list2 = [1, 2]

difference = get_list_difference(list1, list2)
print(difference)
```

```
[3, 4]
```

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

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

In [4]:
```
from itertools import permutations

def generate_permutations(lst):
    return list(permutations(lst))

input_list = [1, 2, 3]
permutations_list = generate_permutations(input_list)
print(permutations_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.

Input a = [10,20,30,20,10,50,60,40,80,50,40] Output {40, 10, 80, 50, 20, 60, 30}

In [5]:
```
def remove_duplicates(lst):
    return list(set(lst))

a = [10, 20, 30, 20, 10, 50, 60, 40, 80, 50, 40]
result = remove_duplicates(a)
print(result)
```

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

In [ ]: