Set

How a set differs from a list:

List	Ordered	Indexed	Duplicacy allowed	Declared using [and]
Set	Unordered	Unindexed	Duplicacy not allowed	Declared using { and }

How a set is similar to a list?

Both are:

1. Changeable
2. Iterable

A set is a group of items where each item is unique.

It is unordered (means there is no sequence and hence no index).

Note: Ordered means there exists a sequence in the arrangements of grouped items. Unordered means there is no sequence.

Ordered means that the order in which items were placed at the time of creation is maintained by the Python till no modification is done to the data itself. For ex: List and Tuple.

List Methods	Set Methods
append()	add()
extend()	update() [Note: set does not support '+' operator]
remove()	remove(), discard()
pop(): removes the last element by default [Note: also accepts index to pop() an element]	pop(): we cannot say which element will be popped as a set is not ordered.
clear(): empties the list	clear(): empties the set

Problem

What is the output of below code:

```
s1 = {'apple', 'banana', 'carrot'}
s2 = {'apple', 'pineapple', 'cherry'}

try:
    print(s1 + s2)
except Exception as e:
    print(e)

try:
    print(s1 - s2)
except Exception as e:
    print(e)
```

Method	Description
add()	Adds an element to the set
clear()	Removes all the elements from the set
copy()	Returns a copy of the set
difference()	Returns a set containing the difference between two or more sets
difference_update()	Removes the items in this set that are also included in another, specified set
discard()	Remove the specified item
intersection()	Returns a set, that is the intersection of two other sets
intersection_update()	Removes the items in this set that are not present in other, specified set(s)
isdisjoint()	Returns whether two sets have a intersection or not
issubset()	Returns whether another set contains this set or not
issuperset()	Returns whether this set contains another set or not
pop()	Removes an element from the set
remove()	Removes the specified element
symmetric_difference()	Returns a set with the symmetric differences of two sets
symmetric_difference_update()	inserts the symmetric differences from this set and another
union()	Return a set containing the union of sets
update()	Update the set with the union of this set and others

Intersection_update(): keeps the items in this set that are present in the other.