```
 #LIST-[]
List=[2,4,5,68,2]
print(List)
# Adding elements to the list using append()
List.append(8)
print("After adding elements:", List)
 # Modifying an element in the list
List[2] = 30
print("After modifying index 2:", List)
# Removing an element from the list by value
List.remove(4)
print("After removing element 4:", List)
# Removing an element from the list by index
del List[0]
print("After removing first element:", List)
# Adding elements at specific positions using insert()
List.insert(1, 10)
print("After inserting 10 at index 1:", List)
```

```
[2, 4, 5, 68, 2]
After adding elements: [2, 4, 5, 68, 2, 8]
After modifying index 2: [2, 4, 30, 68, 2, 8]
After removing element 4: [2, 30, 68, 2, 8]
After removing first element: [30, 68, 2, 8]
After inserting 10 at index 1: [30, 10, 68, 2, 8]
```

```
#dictionary-{}
Dict={1:'abc',2:'Tillu','python':1}
print(Dict)
# Adding elements to the dictionary
Dict['a'] = 1
Dict['b'] = 2
Dict['c'] = 3
print("After adding elements:", Dict)
# Modifying an element in the dictionary
Dict['b'] = 20
print("After modifying 'b':", Dict)
#Removing an element from the dictionary by key
del Dict['a']
print("After removing 'a':", Dict)
# Adding a new element using update()
Dict.update({'d': 4})
print("After adding 'd':", Dict)
```

```
{1: 'abc', 2: 'Tillu', 'python': 1}
After adding elements: {1: 'abc', 2: 'Tillu', 'python': 1, 'a': 1, 'b': 2, 'c': 3}
After modifying 'b': {1: 'abc', 2: 'Tillu', 'python': 1, 'a': 1, 'b': 20, 'c': 3}
After removing 'a': {1: 'abc', 2: 'Tillu', 'python': 1, 'b': 20, 'c': 3}
After adding 'd': {1: 'abc', 2: 'Tillu', 'python': 1, 'b': 20, 'c': 3, 'd': 4}
```

```
#set-{}
Set={2,4,5,8,5,4,2,4}
print(Set)
# Adding elements to the set using add()
Set.add(1)
Set.add(9)
Set.add(10)
print("After adding elements:", Set)
# Trying to add duplicate element (no change in set)
Set.add(2)
print("Trying to add 2 again:", Set)
# Removing an element from the set
Set.remove(2)
print("After removing 2:", Set)
# Creating another set
other_set = {3, 4, 5}
print(other_set, Set)
# Performing union of two sets using |
union_set = Set | other_set
print("Union of sets:", union_set)
# Performing intersection of two sets using &
intersection_set = Set & other_set
print("Intersection of sets:", intersection_set)
```

```
{8, 2, 4, 5}
After adding elements: {1, 2, 4, 5, 8, 9, 10}
Trying to add 2 again: {1, 2, 4, 5, 8, 9, 10}
After removing 2: {1, 4, 5, 8, 9, 10}
{3, 4, 5} {1, 4, 5, 8, 9, 10}
Union of sets: {1, 3, 4, 5, 8, 9, 10}
Intersection of sets: {4, 5}
```