[2]:
```
a={1, 2,3, 4, 5}
print(a)
```

```
{1, 2, 3, 4, 5}
```

[3]:
```
a={1, 2, 3, 4, 5, 6}
b={0, 2, 8, 9, 7, 5}
```

[4]:
```
a.union(b)
```

[4]:
```
{0, 1, 2, 3, 4, 5, 6, 7, 8, 9}
```

[5]:
```
a.intersection(b)
```

[5]:
```
{2, 5}
```

[6]:
```
a.add(7)
```

[7]:
```
print(a)
```

```
{1, 2, 3, 4, 5, 6, 7}
```

[8]:
```
a.difference(b)
```

[8]:
```
{1, 3, 4, 6}
```

[9]:
```
b.difference(a)
```

[9]:
```
{0, 8, 9}
```

[10]:
```
a.symmetric_difference(b)
```

[10]:
```
{0, 1, 3, 4, 6, 8, 9}
```

[12]:
```
print(a, b)
```

```
{1, 2, 3, 4, 5, 6, 7} {0, 2, 5, 7, 8, 9}
```

[13]:
```
c=a.copy()
```

[14]:
```
print(a, b, c)
```

```
{1, 2, 3, 4, 5, 6, 7} {0, 2, 5, 7, 8, 9} {1, 2, 3, 4, 5, 6, 7}
```

[24]:
```
a=[1, 2, 3, 4, 5, 6, 7, 8]
a.pop()
```

[24]:
```
8
```

[25]:
```
print(a)
```

```
[1, 2, 3, 4, 5, 6, 7]
```

[28]:
```
a.append(8)
```

[29]:
```
print(a)
```

```
[1, 2, 3, 4, 5, 6, 7, 8]
```

[30]:
```
a[0]=0
```

[33]:
```
print(a)
```

```
[0, 2, 3, 4, 5, 6, 7, 8]
```

[34]:
```
a.insert(0, 1)
```

[35]:
```
print(a)
```

```
[1, 0, 2, 3, 4, 5, 6, 7, 8]
```

[35]:
```
print(a)
```

```
[1, 0, 2, 3, 4, 5, 6, 7, 8]
```

[36]:
```
a.pop(1)
```

[36]:
```
0
```

[37]:
```
print(a)
```

```
[1, 2, 3, 4, 5, 6, 7, 8]
```

[38]:
```
a.insert(8, 9)
```

[39]:
```
print(a)
```

```
[1, 2, 3, 4, 5, 6, 7, 8, 9]
```

[41]:
```
print(a[1:9:2])
```

```
[2, 4, 6, 8]
```

[42]:
```
c=a.copy()
```

[43]:
```
print(c)
```

```
[1, 2, 3, 4, 5, 6, 7, 8, 9]
```

[58]:
```
def list_operations():
    my_list=[Sun, Mon, Tue, Wed, Thu, Fri, Sat]
    while True:
        print("\nList Operations:")
        print("1.Insert an element")
        print("2.Delete an element")
        print("3.Find an element")
        print("4.Display list")
        print("5.Exit")
        choice = int(input("Enter your choice:"))
        if choice == 1:
```

[60]:
```
a=[1, 2, 3, 4, 5, 6, 7]
a[:]
```

[60]: [1, 2, 3, 4, 5, 6, 7]

[61]:
```
a[1:5]
```

[61]: [2, 3, 4, 5]

[62]:
```
a[1:-5]
```

[62]: [2]

[63]:
```
a[-5:1]
```

[63]: []

[64]:
```
a[-1:5:-1]
```

[64]: [7]

[65]:
```
a[-1:-5]
```

[65]: []

[*]:
```python
def list_operations():
    my_list = []

    while True:
        print("\nList Operations:")
        print("1. Insert an element")
        print("2. Delete an element")
        print("3. Find an element")
        print("4. Display list")
        print("5. Exit")

        choice = int(input("Enter your choice: "))

        if choice == 1:
            element = input("Enter element to insert: ")
            my_list.append(element)
            print(f"Element '{element}' inserted.")

        elif choice == 2:
            element = input("Enter element to delete: ")
            if element in my_list:
                my_list.remove(element)
                print(f"Element '{element}' deleted.")
            else:
                print(f"Element '{element}' not found.")

        elif choice == 3:
            element = input("Enter element to find: ")
            if element in my_list:
                print(f"Element '{element}' found.")
            else:
                print(f"Element '{element}' not found.")

        elif choice == 4:
            print("Current List:", my_list)
```

```
        elif choice == 4:
            print("Current List:", my_list)

        elif choice == 5:
            print("Exiting program...")
            break

        else:
            print("Invalid choice, please try again.")

list_operations()
```

```
List Operations:
1. Insert an element
2. Delete an element
3. Find an element
4. Display list
5. Exit
Enter your choice:  1
Enter element to insert:  200
Element '200' inserted.

List Operations:
1. Insert an element
2. Delete an element
3. Find an element
4. Display list
5. Exit
Enter your choice:  2
Enter element to delete:  200
Element '200' deleted.

List Operations:
1. Insert an element
2. Delete an element
3. Find an element
4. Display list
```

```
List Operations:
1. Insert an element
2. Delete an element
3. Find an element
4. Display list
5. Exit
Enter your choice:  1
Enter element to insert:  20
Element '20' inserted.

List Operations:
1. Insert an element
2. Delete an element
3. Find an element
4. Display list
5. Exit
Enter your choice:  1
Enter element to insert:  30
Element '30' inserted.

List Operations:
1. Insert an element
2. Delete an element
3. Find an element
4. Display list
5. Exit
Enter your choice:  4
Current List: ['10, 20, 30, 40, 50', '20', '30']

List Operations:
1. Insert an element
2. Delete an element
3. Find an element
4. Display list
5. Exit
Enter your choice: ↑↓ for history. Search history with c-↑/c-↓
```

Show hidden icons

```
[60]: a=[1, 2, 3, 4, 5, 6, 7]
      a[:]

[60]: [1, 2, 3, 4, 5, 6, 7]

[61]: a[1:5]

[61]: [2, 3, 4, 5]

[62]: a[1:-5]

[62]: [2]

[63]: a[-5:1]

[63]: []

[64]: a[-1:5:-1]

[64]: [7]

[65]: a[-1:-5]

[65]: []

[ ]:
```