## Find the Smallest and largest element in an array

|  | 1. | Initia | lize an | empty | y list | num. |
|--|----|--------|---------|-------|--------|------|
|--|----|--------|---------|-------|--------|------|

| num=[]  |  |
|---|--|
|   |  |
|   |  |
| 2. Prompt the user to input the size of an array. |  |
| <pre>size=int(input("Enter the size : "))</pre>   |  |
|   |  |
| Enter the size : 5                                |  |
|   |  |
|   |  |

3. Iterate from 0 to n-1:

```
for i in range(size):
```

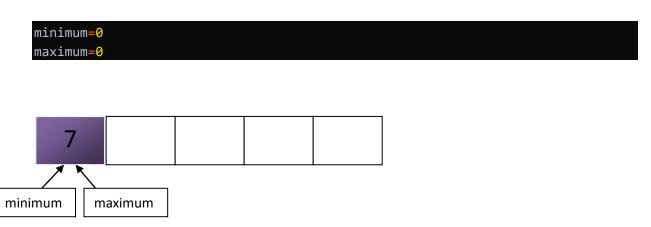
a. Prompt the user to input an element and append it to the num list.

```
val=int(input("Enter the elements in an
array "))
  num.append(val)
```

```
Enter the elements in an array 7
Enter the elements in an array 3
Enter the elements in an array 0
Enter the elements in an array 2
Enter the elements in an array 87
```



4. Initialize variables minimum and maximum with the first element of the num list.



5. Iterate through the elements of num:

```
for i in range(len(num)):
```

a. If the current element is greater than maximum, update maximum.

```
if num[i]>maximum:
    maximum=num[i]
```

| 7>7  | False | Maximum = 7  |
|------|-------|--------------|
| 3>7  | Flase | Maximum = 7  |
| 0>7  | False | Maximum = 7  |
| 2>7  | False | Maximum = 7  |
| 87>7 | True  | Maximum = 87 |

b. If the current element is less than minimum, update minimum.

```
if num[i]<minimum:
    minimum=num[i]</pre>
```

| 7<7  | False | Minimum = 7 |
|------|-------|-------------|
| 3<7  | True  | Minimum = 3 |
| 0<3  | True  | Minimum = 0 |
| 2<0  | False | Minimum = 0 |
| 87<0 | False | Minimum = 0 |

6. Print the maximum and minimum elements found.

```
print(maximum,"= maximum")
print(minimum,"= minimum")
```

| Maximum | Minimum |
|---------|---------|
| 87      | 0       |

```
num=[]
size=int(input("Enter the size : "))
for i in range(size):
    val=int(input("Enter the elements in an array "))
    num.append(val)

minimum=0
maximum=0

for i in range(len(num)):
    if num[i]>maximum:
        maximum=num[i]
    if num[i]<minimum:
        minimum=num[i]

print(maximum,"= maximum")
print(minimum,"= minimum")</pre>
```