155.Write a Program to find both the maximum and minimum values in the array. Implement using any programming language of your choice. Execute your code and provide the maximum and minimum values found.

   Input : N= 8, a[] = {5,7,3,4,9,12,6,2}
   Output : Min = 2, Max = 12

Code:

```python
def find_min_max(arr):

    if not arr:

        return None, None


    min_val = arr[0]

    max_val = arr[0]


    for num in arr:

        if num < min_val:

            min_val = num

        if num > max_val:

            max_val = num


    return min_val, max_val


N = 8

a = [5, 7, 3, 4, 9, 12, 6, 2]


min_val, max_val = find_min_max(a)


print("Min =", min_val)

print("Max =", max_val)
```

output:

```
PS C:\Users\karth> & C:/Users/karth/AppData/Local/Programs/Python/Python312/python.exe c:/Users/karth/OneDrive/Desktop/csa0863_karthik/PROBLEM.py
Min = 2
Max = 12
PS C:\Users\karth>
```

Time complexity:

F(n)=0(n)