**3.2 MAXIMUM AND MINIMUM VALUES**

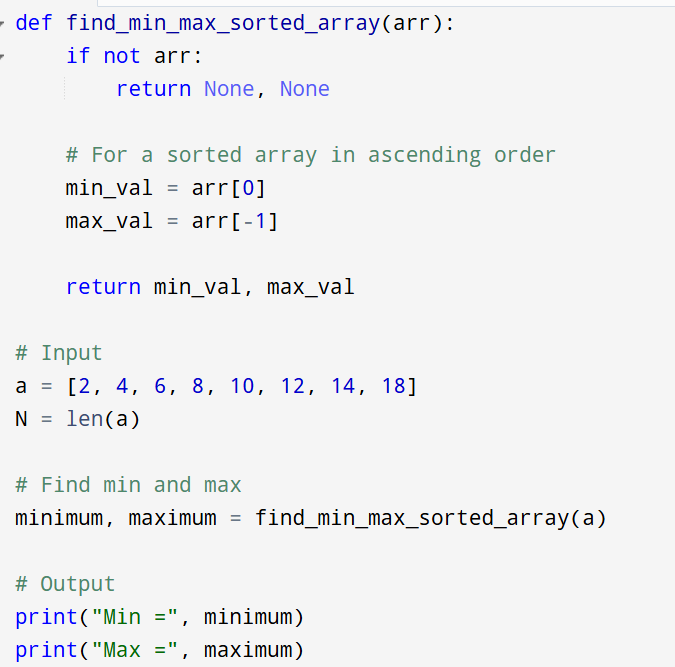
**Aim**: To write a Python program to find the **minimum** and **maximum** values in a sorted array.

**Algorithm:**

1. StarT.
2. Input: Read integer N and array a[0...N-1]
3. Initialize:
4. min\_val = a[0]
5. max\_val = a[0]
6. Repeat for i = 1 to N - 1:
7. If a[i] < min\_val, then min\_val = a[i]
8. If a[i] > max\_val, then max\_val = a[i]
9. Output: min\_val and max\_val

End

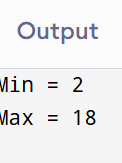
**Program:**

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**Input:**

a = [2, 4, 6, 8, 10, 12, 14, 18]

**Output:**

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**Result:** Thus the program is successfully executed and the output is verified.

**Performance analysis:**

|  |  |
| --- | --- |
| Time Complexity: | **O(1)** for sorted array (direct access) |
| Space Complexity: | **O(1)** |