std::sort

reference: https://en.cppreference.com/w/cpp/algorithm/sort.html

Sorts the elements in the range [first, last) in non-descending order. The order of equal elements is not guaranteed to be preserved.

1. Elements are sorted with respect to **operator<**

How it works?

When you call **std::sort**, the algorithm doesn't know what you're sorting, only how to compare two elements.

If you don't give it a custom comparator, it automatically uses the less-than **operator (<)** for the element type.

Example:

```
std::vector<int> v = {5, 1, 3};
std::sort(v.begin(), v.end());
```

```
5 < 1   → false
1 < 3   → true
```

What about User-Defined Types?

```
std::vector<Book> catalog = {b1, b2, b3};
std::sort(catalog.begin(), catalog.end());
```

Internally this is what happens

```
if (a < b) {
    // place a before b
}
```