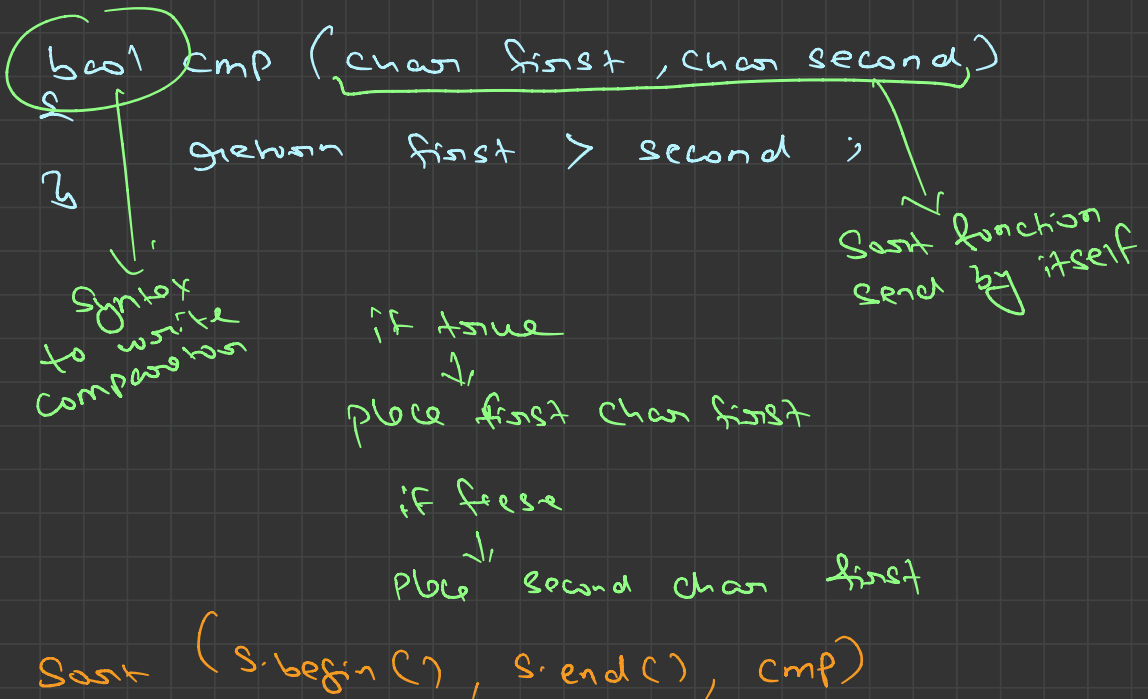



use custom comparator in sort function

```
String s = "jaIn";  
sort(s.begin(), s.end()); // increase  
                           // order  
                           // "aInj"
```

But how to sort in decreasing?
w/o using reverse()

we use custom comparator



vector <string> str { "Love", "bobbar",
"aditya", "jein" };

Sort \rightarrow first letter cmp (Lexicographic)
 \rightarrow char sum

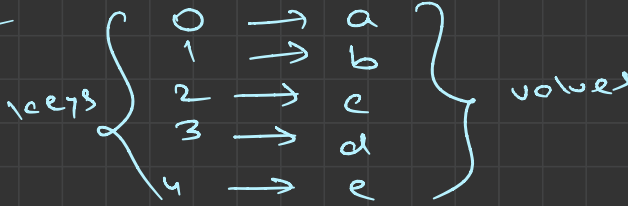
$$\begin{aligned}\text{love} &= 12 + 15 + 22 + 5 \Rightarrow 54 \\ \text{bobbar} &= 2 + 1 + 2 + 2 + 1 + 18 \Rightarrow 26\end{aligned}$$

bobbar comes first

Hashmap

→ data structure
↳ key-value pair

for ex



```
#include <map>
```

```
map<int, char> mp;
```

```
mp[0] = 'a';  
mp[1] = 'b';  
mp[2] = 'c';
```