Leetcode May Challenge DAY: 22

1. Python

```
class Solution(object):
    def frequencySort(self, s):
        """
        :type s: str
        :rtype: str
        """
        from collections import Counter
        c = Counter(s)
        l = []
        for i in c: l.append([i, c[i]])
        l = sorted(l, key=lambda x: x[-1], reverse = True)
        return "".join(i[0]*i[1] for i in l)
```

2. C++

```
class Solution {

public:


  string frequencySort(string s)

  {

    int i,a[256]={0},j;

    string ans="";

    map<int,set<char> > mp ;

    for(i=0;s[i];i++)

    {

      a[s[i]]++;

    }

    for(i=0;s[i];i++)

    {

      mp[a[s[i]]].insert(s[i]);

    }

    map<int,set<char> > :: iterator it;

    set<char> :: iterator ii;

    for(it=mp.begin();it!=mp.end();it++)

    {

      for(ii=it->second.begin();ii!=it->second.end();ii++)

      {

        for(j=0;j<it->first;j++)

        {

          ans+=*ii;

        }

      }

    }
```

```
        reverse(ans.begin(),ans.end());
        return ans;
    }
};
static int fastio = []() {
    std::ios::sync_with_stdio(false);
    std::cin.tie(NULL);
    std::cout.tie(0);
    return 0;
}();
```

3. JAVA

```
class Solution {
    public String frequencySort(String s) {

        //initialising res
        StringBuilder res = new StringBuilder();
        if(s==null || s.length()==0){
            return res.toString();
        }

        //initialise hashmap and add all the char from string s in the map with freq
        HashMap<Character,Integer> map = new HashMap<>();
        for(char c: s.toCharArray()){
            map.put(c, map.getOrDefault(c,0)+1);
        }

        //initialise a list
         List<Character> [] bucketlist = new List[s.length() + 1];
        for (char key : map.keySet()) {
            // build a frequency list of each char in map
            int freq = map.get(key);
            if (bucketlist[freq] == null) {
                bucketlist[freq] = new ArrayList<Character>();
            }
            bucketlist[freq].add(key);
        }
```

```
        //iterate through bucketlist and append the character in result string frequency times.
        for (int i = bucketlist.length-1; i >= 0; i--) {
            if (bucketlist[i] != null) {
                for (char c : bucketlist[i]) {
                    // append 'frequnecy' times
                    for (int j = 0; j < i; j++) {
                        res.append(c);
                    }
                }
            }
        }
        //return result
        return res.toString();
    }
}
```