**[Least Number of Unique Integers after K Removals](https://leetcode.com/problems/least-number-of-unique-integers-after-k-removals/)**

Given an array of integers arr and an integer k. Find the *least number of unique integers* after removing **exactly** k elements**.**

**Example 1:**

**Input:** arr = [5,5,4], k = 1

**Output:** 1

**Explanation**: Remove the single 4, only 5 is left.

**Example 2:**

**Input:** arr = [4,3,1,1,3,3,2], k = 3

**Output:** 2

**Explanation**: Remove 4, 2 and either one of the two 1s or three 3s. 1 and 3 will be left.

**Constraints:**

* 1 <= arr.length <= 10^5
* 1 <= arr[i] <= 10^9
* 0 <= k <= arr.length

class Solution {

public:

    int findLeastNumOfUniqueInts(vector<int>& arr, int k) {

        unordered\_map<int,int>mp;

        for(int& x:arr){

            mp[x]++;

        }

        vector<pair<int,int>>dp;

        for(auto it:mp){

            dp.push\_back(it);

        }

        sort(begin(dp),end(dp),[](auto a,auto b){

            return a.second<b.second;

        });

        int count = 0;

        for(auto it:dp){

            if(k>=it.second){

                k-=it.second;

                count++;

            }else{

                break;

            }

        }

        return size(dp)-count;

    }

};

Link --- <https://leetcode.com/problems/least-number-of-unique-integers-after-k-removals/?envType=daily-question&envId=2024-02-16>