Top K Frequent Elements

Try to solve the Top K Frequent Elements problem.

We'll cover the following

Statement

Given an array of integers, `arr`, and an integer, `k`, return the k most frequent elements.

> **Note:** You can return the answer in any order.

Constraints:

- $1 \leq$ `arr.length` $\leq 10^3$
- $10^{-4} \leq$ `arr[i]` $\leq 10^4$
- $1 \leq$ `k` $\leq$ number of unique elements in an array.

Examples

Sample example 1

Input

k	2

arr	1	3	5	14	18	14	5

Output

result	5	14

Understand the problem

Let's take a moment to make sure you've correctly understood the problem. The quiz below helps you check if you're solving the correct problem:

Top K Frequent Elements

1 What is the output if the following inputs are given?

arr = [1, 1, 2, 4, 5, 5]

k = 2

A) [1]

B) [5]

C) [1, 5]

D) [1, 2]

Submit Answer

Question 1 of 2
0 attempted

Reset Quiz

Figure it out!

We have a game for you to play. Rearrange the logical building blocks to develop a clearer understanding of how to solve this problem.

Drag and drop the cards to rearrange them in the correct sequence.

Create a min-heap of size k and a hash map to store the frequency of each element.

Iterate through the array's elements and update each element's frequency in the hash map.

For each element in the hash map, insert a key-value pair into the heap until it reaches its maximum size of k.

If the heap size exceeds k, remove the minimum element from the heap.

After processing all elements in the array, the heap contains the k elements with the highest frequency.

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Try it yourself

Java

usercode > FrequentElements.java

```java
import java.util.*;

public class FrequentElements{
    public static List<Integer> topKFrequent(int[] arr, int k) {

    // Your code will replace this placeholder return statement

    return new ArrayList<Integer>();
    }
}
```

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Test Cases | Results

Case 1 | Case 2 | Case 3

Input #1

[3,2,3,1,2,4,5,5,6,7,7,8,2,3,1,1,1,10,11,5,6,2,4,7,8,5,6]

Input #2

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Top K Frequent Elements

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