1393. Maximum Value of K Coins From Piles

Difficulty : Hard

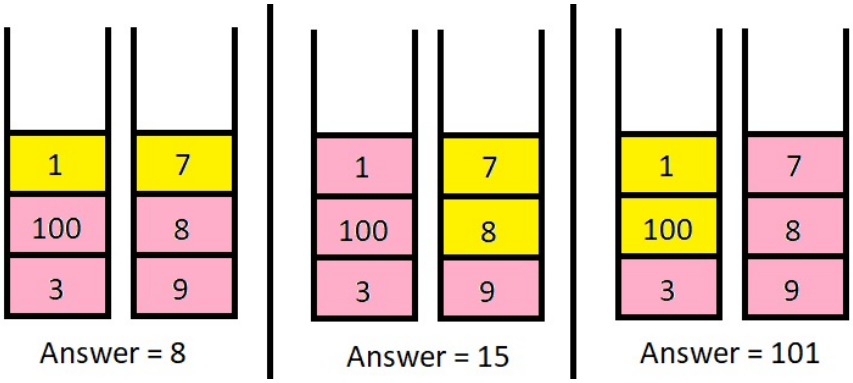
https://leetcode.com/problems/maximum-value-of-k-coins-from-piles

There are `n` **piles** of coins on a table. Each pile consists of a **positive number** of coins of assorted denominations.

In one move, you can choose any coin on **top** of any pile, remove it, and add it to your wallet.

Given a list `piles`, where `piles[i]` is a list of integers denoting the composition of the `i`th pile from **top to bottom**, and a positive integer `k`, return *the **maximum total value** of coins you can have in your wallet if you choose **exactly** `k` coins optimally*.

Example 1:




```
Input: piles = [[1,100,3],[7,8,9]], k = 2
Output: 101
Explanation:
The above diagram shows the different ways we can choose k coins.
The maximum total we can obtain is 101.
```

Example 2:

```
Input: piles = [[100],[100],[100],[100],[100],[100],[1,1,1,1,1,1,700]], k = 7
Output: 706
Explanation:
The maximum total can be obtained if we choose all coins from the last pile.
```

Constraints:

- `n == piles.length`
- `1 <= n <= 1000`
- `1 <= piles[i][j] <= 10`^{5}
- `1 <= k <= sum(piles[i].length) <= 2000`