

Design A Leaderboard - LeetCode

 leetcode.com/problems/design-a-leaderboard

Design a Leaderboard class, which has 3 functions:

1. `addScore(playerId, score)` : Update the leaderboard by adding `score` to the given player's score. If there is no player with such id in the leaderboard, add him to the leaderboard with the given `score` .
2. `top(K)` : Return the score sum of the top `K` players.
3. `reset(playerId)` : Reset the score of the player with the given id to 0. It is guaranteed that the player was added to the leaderboard before calling this function.

Initially, the leaderboard is empty.

Example 1:

Input:

```
["Leaderboard","addScore","addScore","addScore","addScore","addScore","top","reset","reset","addScore"]
```

```
[[],[1,73],[2,56],[3,39],[4,51],[5,4],[1],[1],[2],[2,51],[3]]
```

Output:

```
[null,null,null,null,null,null,73,null,null,null,141]
```

Explanation:

```
Leaderboard leaderboard = new Leaderboard ();
leaderboard.addScore(1,73); // leaderboard = [[1,73]];
leaderboard.addScore(2,56); // leaderboard = [[1,73],[2,56]];
leaderboard.addScore(3,39); // leaderboard = [[1,73],[2,56],[3,39]];
leaderboard.addScore(4,51); // leaderboard = [[1,73],[2,56],[3,39],[4,51]];
leaderboard.addScore(5,4); // leaderboard = [[1,73],[2,56],[3,39],[4,51],[5,4]];
leaderboard.top(1);        // returns 73;
leaderboard.reset(1);      // leaderboard = [[2,56],[3,39],[4,51],[5,4]];
leaderboard.reset(2);      // leaderboard = [[3,39],[4,51],[5,4]];
leaderboard.addScore(2,51); // leaderboard = [[2,51],[3,39],[4,51],[5,4]];
leaderboard.top(3);        // returns 141 = 51 + 51 + 39;
```

Constraints:

- $1 \leq \text{playerId}, K \leq 10000$
- It's guaranteed that `K` is less than or equal to the current number of players.
- $1 \leq \text{score} \leq 100$
- There will be at most `1000` function calls.

Keep a map (dictionary) of player scores.

For each `top(K)` function call, find the maximum `K` scores and add them.

