“Live Scoreboard in Drone Racing League”

Simple Description

In a professional drone racing tournament, pilots’ scores change rapidly based on real-time race data.
The league needs to constantly display the **top K pilots** ranked by score.

Problem Statement

Design a **live leaderboard** that efficiently maintains the top K pilots by their latest scores.

Input Format

- List of `(pilot_name, score)` pairs
- Integer K (top K pilots)

Example Input

```
scores = [("PilotX", 980), ("PilotY", 1200), ("PilotZ", 1100), ("PilotW", 1000)] K = 2
```

Output
`[("PilotY", 1200), ("PilotZ", 1100)]`

Test Cases

1. `scores=[("A",10),("B",5),("C",20)], K=2 → [("C",20),("A",10)]`
2. `scores=[("Sky",500),("Cloud",450),("Storm",600)], K=1 → [("Storm",600)]`
3. `scores=[("P1",300),("P2",300),("P3",299)], K=2 → [("P1",300),("P2",300)]`
4. `scores=[("Solo",50)], K=1 → [("Solo",50)]`

Complexity

- Time: O(N log K)
- Space: O(K)