CODING EXERCISE

Instructions:

Please provide an implementation of the Football World Cup Scoreboard as a simple library.

Guidelines:

• Keep it simple. Stick to the requirements and implement the simplest solution that works, considering edge cases.
• Use an in-memory store (e.g., collections) for any required data storage.
• This is not a REST API or microservice: just a standalone library.
• Focus on quality: apply Test-Driven Development (TDD), clean OO design, and adhere to SOLID principles.
• Share your solution via source control (e.g., GitHub) so we can see your commit history.
• Include a README.md with any assumptions or notes about your solution.
• For frontend implementations in a UI framework, provide minimal components; for plain JavaScript, implement as a simple module.

Football World Cup Scoreboard:

You are tasked with developing a live Football World Cup Scoreboard that tracks matches and scores.

Supported operations:

1. Start a game. When a game starts, record (initial score 0–0):
   - Home team
   - Away team
2. Finish a game. Remove a match from the scoreboard.
3. Update score. Given new home and away scores, update the match score.
4. Get a summary of games by total score. Return games ordered by descending total score; for ties, list the most recently added first.

Example state:

- Mexico - Canada: 0 – 5
- Spain - Brazil: 10 – 2
- Germany - France: 2 – 2
- Uruguay - Italy: 6 – 6
- Argentina - Australia: 3 – 1

Summary output:

1. Uruguay 6 – Italy 6
2. Spain 10 – Brazil 2
3. Mexico 0 – Canada 5
4. Argentina 3 – Australia 1
5. Germany 2 – France 2

Deliverables:

- Source code implementing the library
- Unit and integration tests demonstrating functionality
- README.md with setup, usage instructions, and any assumptions