***Async Challenge***

You are required to build a back-end service that processes student submissions for word puzzles, grades them and presents a high-score leaderboard. This challenge is an opportunity for you to demonstrate your capability and demonstrate how you work.

We value smaller amounts of high quality code over large volumes of partially implemented functionality.

**Before you start:**

* The project is to be done in a PHP Framework model (Laravel OR Symfony ..) with proper exception handling.
* Coding Standard to be followed
* Write Unit Testcases for the business methods
* Provide a read me file with the project setup instructions
* The working copy of the project to be uploaded in GitHub and share the GitHub link for review

Key Requirements

1.

Each puzzle is defined by a random string of letters that is presented to the user, for example " dgeftoikbvxuaa ". The string is guaranteed to allow the construction of at least one valid English word.

2.

Students attempt to create English words using the letters provided in the string. Each letter used scores one point.

a. For example fox would score 3 points

3.

Letters can only be used as many times as they appear in the string. Once a letter is used in a submitted word, it cannot be used in subsequent resubmissions by the same student.

a. If a student used fox they would have dgetikbvuaa left to play with.

4. A word has to be a valid English word, consider how this would be validated.

5.

When there are no characters left in the string, or the student chooses to end the test, the system will show them their score, and if there were any valid words remaining in the string.

6.

The game maintains the top ten highest-scoring submissions (words and score). Anyone using the system should be able to request this list.

7.

Duplicate words are not allowed in the high score list. A word can only appear once in the high score list.

Consider testability, simplicity and observability as part of your solution.

The service must be built in PHP >= 8.1 but you are free to use any framework, tool or service.

Please include a ReadMe on your submission that explains Your solution, why you opted for this approach Setup instructions