

## Bondstein Backend Developer (PHP, Raw PHP, JavaScript)

**Task 1:** Create a simple REST API endpoint using PHP (without any frameworks like Laravel) that allows a user to submit a product review. The endpoint should accept POST requests with JSON data containing a product ID, user ID, and the review text. Ensure basic validation of the input data and return an appropriate response.

**Requirements:**

Use Raw PHP to create the endpoint.

Implement basic input validation (e.g., check for non-empty fields, valid numerical IDs).

The endpoint should return a success message if the data is valid or an error message if the data is invalid.

**(Optional)** Connect to a MySQL database to save the review, if possible within the time limit.

**Deliverables:** PHP script(s) for the API endpoint.

**Evaluation:** Candidates should demonstrate their ability to handle raw PHP, process JSON data, perform validations, and communicate with a database if applicable.

**Task 2:** Describe your approach to optimizing a backend application for high performance and scalability, especially in the context of IoT-enabled applications. What strategies and techniques would you employ?

**Deliverables:** Your answer in a document/pdf file.

**Task 3:** Given a number and a list of numbers in non-decreasing order, find two indices of the list whose values add up to be that number. Write the most efficient code you can think of. Use a language of your preference. If there are no such numbers in the list, report that.

**Deliverables:** The code in your preferred language.