# Coding Challenge

## ***Explanation of Task***

- You can use any technology/ies to complete this code challenge but preferably use PHP and Laravel.
- Develop the backend API method call mentioned in the API Documentation.
- Develop a simple form page that can handle user input, call the API method and then display the results.
- Error handling must be setup in both frontend and backend.
- Some requirements were left open to interpretation to test your ability in making correct assumptions.
- Expected duration of the task: 1 to 2 hours.
- Note: Copying code or utilizing AI tools for creating the code will invalidate the entry.

## ***You will be judged on***

- Correct use of coding standards and practices.
- Overall implementation of the solution.
- Ability to understand requirements.

## ***You will not be judged on***

- Frontend Styling.

## ***API Documentation***

**General Points**

- The API conforms to the **REST architecture**.
- Data sent in the request and response bodies are encoded in **JSON**.
- Access to the API is restricted via **authorized JWT tokens**.
- The requests must include these **two required HTTP headers**:

| Key | Value |
|---|---|
| Content-Type | application/json |
| Authorization | Bearer <JWT Token> |

**Type of Request:** POST

**URL Endpoint:** /quotation

**Request Body Parameters**

All the below parameters are required.

| Key | Description | Example |
|---|---|---|
| age | Comma-separated list of ages. | "28,35" |
| currency_id | Currency code in ISO 4217 format. Can either be "EUR","GBP" or "USD" | "EUR" |
| start_date | Start date of trip in ISO 8601 format. | "2020-10-01" |
| end_date | The end date of the trip in ISO 8601 format. | "2020-10-30" |

**Response Body Parameters**

| Key | Description | Example |
|---|---|---|
| total | Total Price of Policy | 117.00 |
| currency_id | Currency code in ISO 4217 format. | "EUR" |
| quotation_id | Quotation ID for your reference. | 1 |

**Total Calculation**

- Total = Fixed Rate * Age Load * Trip Length
- Fixed-rate = 3 per day.

Age Load Table

| Age | Load |
|---|---|
| 18-30 | 0.6 |
| 31-40 | 0.7 |
| 41-50 | 0.8 |
| 51-60 | 0.9 |
| 61-70 | 1 |

Trip length is inclusive of both start date and end date so a start date of 2020-10-01 and an end date of 2020-10-30 will constitute a trip length of 30 days.

Worked Example:

- Total = (3 * 0.6 * 30) + (3 * 0.7 * 30) = 117.00