

# Full Stack Developer Project Assessment

## Objective

The goal of this assessment is to evaluate the candidate's ability to design and implement a Laravel application that meets real-world requirements. The submitted solution will be assessed to determine whether it reflects the skills.

## Problem Statement

We are launching a **website uptime monitoring software** where a client can provide an email address and a list of websites they want monitored. The application must meet the following requirements:

## Functionality Requirements

1. **Client Input:**
  - Each client provides an email address.
  - Each client submits a list of websites they wish to monitor.
  - Client information will be **manually entered into the database** during deployment.
2. **Monitoring Process:**
  - The homepages of the provided websites must be checked **every 15 minutes**.
  - If a website is **unreachable within 10 seconds** or returns an **error**, an alert must be triggered.
3. **Email Notification System:**
  - An email should be sent to the client when a website is down.
  - The email **subject line** should be formatted as: **"{website URL} is down!"**
  - The email **body** should contain the same message.
  - The sender of the email should be [do-not-reply@example.com](mailto:do-not-reply@example.com).
4. **Client and Website Display:**
  - The home page will display a select input with the list of all client emails.
  - When a client email is selected in the select input, a bullet point list of all of the client's websites will display as hyperlinks below the select input.
  - When a hyperlink is clicked, a dialog should appear with the text "You are about to visit {website}. Do you want to continue?" with "Continue" and "Cancel" options. If "Continue", the website opens in a new tab. If "Cancel", the dialog simply closes.

## Scalability Requirements

- The application should support **hundreds of clients** at launch.
- Each client should be able to monitor **up to ten websites**.

### Technical Considerations

- This is a **greenfield project** intended to be **continuously expanded** with new features and additional clients.
- The **Minimum Viable Product (MVP)** should focus on core functionality.
- The project will be deployed in a **standard LAMP stack environment** with **Redis installed**.
- **Laravel's built-in drivers** will be used for all production configurations (e.g., SES for email, etc.).
- The database should be **MySQL or MariaDB**.
- The frontend should be a **Single Page Application built with Vue.js**.
- There is no need to include any authentication because the website will not be publicly accessible.

### Submission Guidelines

- The estimated time for this project is **8-12 hours**.
- Once completed, please **upload the project to GitHub** and share the repository link.

### Evaluation Criteria

The project will be reviewed based on:

- **Code quality and maintainability**
- **Adherence to Laravel best practices**
- **Efficiency of the website monitoring implementation**
- **Scalability considerations**
- **Error handling and robustness**
- **Proper use of Laravel's built-in drivers**

This assessment will help determine if the candidate has the required expertise to work on a growing Laravel application effectively.