Stack Requirements

Laravel
PHP
MySQL
Git repo (github, gitlab, bitbucket, etc, as long as access to it is provided to us)

Objectives

The objective of this InterMission is to provide us with qualitative insight into your capabilities in the following competencies:

Assembly of UI components, assets and templates to deliver an effective user experience using HTML, CSS and Javascript/AJAX (including template decomposition & re-use of headers, footers, menu's etc. across views)

Decomposition of a problem domains data and its normalization into a database structure to ensure extensibility of the application

Your control and processing of errors and interaction notifications to users of the application

Understanding of and the ability to construct a simple yet elegant solution within our chosen PHP framework (laravel)

How you solve problems and interact with others

The Problem

ACME limited requires an application to be built to provide System Administrators the ability to (a) manage and define a series of Question and Answer Structures and publish these to the Users of the application, and (b) Users the ability to respond to the questions and save their responses into the system.

The landing page for the application will provide 2 options to access either the System Administrator Control Panel (Part a) or the User Response Area (Part b).

More details on each aspect (Part a and Part b) of the application are provided below.

Part A: System Administrator Control Panel

The System Administrator will access the Admin Control Panel from the Landing Page of the application and be presented with following options:

Question and Answer Structure Maintenance

➢ The System Administrator can Create, View, Edit and Delete Questions and their associated Answer Structures.

➢ Every Question must have an associated Answer Structure.

➢ Questions and associated Answer Structures can only be Edited or Deleted if there are no User Responses to the Question. In the event the System Administrator attempts to Edit or Delete a Question and Answer structure they will be informed that this is not possible.

➢ There is no limit to the number of Question and Associated Answer Structures the System Administrator can create.

➢ Implement any necessary data validation and error message and status and notification indicators and messages you feel are appropriate.

Response dashboard

Design a dashboard that provides a high-level management analysis of the responses received from Users. Use your imagination and explore the UI template features to showcase a pertinent and interesting summary view of the responses provided by Users.

It would be nice to be able to view all users responses to the questionnaire.

Part B: User Response Area

On entry to the User Response Area, the User will be presented with a set of Question and Answer Structures as defined by the System Administrator.

Key Features to implement are:

➢ The system will dynamically build a questionnaire form determined by the Question and Answer Structures created by the System Administrator

➢ A User can complete a questionnaire (a collection of responses to each Question and Answer Structures) and save it

➢ Upon completion of the questionnaire, the user is presented with a read only onscreen version of the questionnaire and their responses along with a unique code to represent their completed questionnaire.

➢ Implement any necessary data validation and error message and status and notification indicators and messages you feel are appropriate.

Question and Answer Structures

A single Question and Answer Structure is minimally composed of the following attributes:

➢ Question Text
➢ Answer Type (Number, Text, Date, Radio, Drop Down)
➢ Mandatory flag to indicate whether the User must provide a response to this particular Question

The Answer Type will determine how the question is presented to the user on screen.

For example:

An Answer Type = 'Number' indicates the User must be presented with an input field to provide a number only.

Similarly, an Answer Type = 'Drop Down' would indicate the User is presented with a drop down list.

An Answer Type = 'Date' would present an input field that accepts a valid date. Additionally you might want to provide a "Date Picker" to improve the user experience.

An Answer Type = 'Radio' would present a radio button.

Answer Type Metadata

For some Answer Types, specifically 'Drop Down' there is a need for the System Administrator to provide a data series to enable the system to populate the drop down list. This is known as Answer Type Metadata.

Please review Sample Question and Answer Structures for more information on Answer Type Metadata. These example Answer Type Metadata will be used to determine the efficacy of your solution.

Things we think are really important

Your data model: Have you designed it to be flexible enough to enable the System Administrator to add Question and Answer Structures on the fly without the assistance of an engineer? A bad data model compromises the applications future scalability – we'd rather see a good data model and 80% complete application than a bad data model and a 100% complete application.

Is the navigation of your application intuitive? Is everything aligned nicely and is it visually appealing?

Have you implemented robust data validation and error checking code and associated notifications to the users of the system to enable them to understand what is required of them?

Are you leveraging the features of the Laravel framework ensuring that you gain a good balance between speed of development and componentization of code (including views).

Things we really like

We like engineers who understand the balance between perfection and obsession.

We like engineers who experiment and deliver products that exceed user experience expectations and are flexible to quickly extend without having to re-architect large portions of it.

We like engineers that can write performant PHP and SQL code.

Want to really impress us?

Surprise us! Extend the application beyond the scope by adding login & registration screens, show off your UI, UX or PHP skills by thinking beyond the problem and solution requested in this InterMission and extend it in any way you like.

Sample Question and Answer Structures

The following are a set of **<u>sample</u>** Question and Answer Structures that you may use to validate and test your solution.

IMPORTANT: This is a SAMPLE and you should expect your application to be tested to accept data beyond the samples listed below.

Question	Answer Type	Answer Type Metadata	Mandatory
What is your name?	Text	NULL	Yes
When were you born?	Date	NULL	Yes
Marital Status	Drop Down List	Single Married In a relationship Prefer not to disclose	Yes
Do you smoke?	Radio	Yes No	Yes
Gender?	Radio	Male Female	No
Nationality	Drop Down List	Irish British Spanish French Other	No