Mobile Developer evaluation

Dynamic forms

In the rapidly evolving landscape of mobile application development, creating dynamic and responsive user interfaces is a crucial skill. The ability to generate forms dynamically based on data structures provided at runtime is a valuable asset, particularly in applications requiring frequent updates or customization based on user input or backend data changes.

As a developer, the capacity to interpret a given data structure and render a user-friendly and functional interface is essential. This task evaluates your proficiency in handling data and using it to dynamically construct forms in both Android and iOS environments. By leveraging Kotlin for Android and Swift for iOS, you will demonstrate your understanding of two powerful programming languages and their respective frameworks.

You are tasked with creating a mobile application that can dynamically render a form based on a JSON structure (use attached JSON files). This form should be fully functional (please check the next section for more details), allowing users to interact with various types of input fields defined in the JSON. For the complete list of components, please see the file *all-filelds.json.*

all-fields.json

200-form.json

What needs to be done?

🚨 Important notes

1. You don't need to support all field types, only the following four
   - Description (`type : "description"`)
     - This has some HTML content that needs to be rendered. Same for the sections
   - Dropdown (`type : "dropdown"`)
   - Text (`type : "text"`)
   - Number (`type : "number"`)
2. Those items above needs to be organized in their section as defined by the files mentioned in the previous section.
3. Any other type in the file **SHOULD NOT BE IGNORED**, but needs to be treated as Text (`type : "text"`). This will remove a bit of the complexity.

1. Provide a page with the list of forms, only those two mentioned above (files). This will be the landing page. When form is selected, we will open a page with
   a. The a list of form entries for this forms. This list will be possibly be empty at first use.
   b. A button to add a new entry. When clicking this button, it will open the form detail page, that dynamically load the fields accordingly. Try to think about performance when doing this. It should work for bigger forms, even bigger than the second example.
2. The data entered for each form, needs be persisted in the database. Same goes for the forms. So the forms given, needed to be loaded into the database just once.
   a. For the database, feel free to user whatever you feel comfortable with, the important thing here is that data is persisted and the data polling is

performant

3. Bonus: this feature optional. Autosave feature: it consists in autosaving the data the user entering while they are filling forms. If the app gets closed or the apps crashes for some reason, the progress needs to be saved. It's OK if we miss couple of fields entry.

How to Proceed and Q&A

Feel free to add extra features if you need, but remember you are not required to do so.

> 🚨 **The solution needs to be done for both platforms:**
>
> 1. **Android** using **Kotlin**
> 2. **iOS** using **Swift**
>
> **Hybrid solutions will not be accepted!**

You can use as many third-party packages as you need. You are not required to make any backend service for this, considere those JSON as a response you received from an API and process it as you need to make the solution.

How to submit the project

1. Create a public repository in Github with a README that will describe how to run the project
2. When you are done, please send the repo URL to jean.silva@cloudplusplus.com and malu.lyra@cloudplusplus.com

What's next?

We will send an email with further information.

Best of Luck!