Software Developer (Mobile) Technical Pre-Test Materials

Background and Problem Statement

Mr. Power, the owner of a National Museum, faces the challenge of effectively communicating available events and activities to the public. The current physical event board limits access and engagement, particularly for those unable to visit the museum in person. To enhance outreach and accessibility, Mr. Power seeks to digitalize the event and activities board through a mobile application. This solution aims to provide users with real-time information on museum events, ultimately increasing public participation and awareness without the need for physical access to the museum. The primary objective is to create an intuitive, user-friendly platform that connects a wider audience with the museum's offerings.

Challenge

You are required to build a mobile application to provide users with a digitalised event and activity listing board, which allows users to view all available events/activities without having to visit the museum in person.

Things to keep in mind:

- The museum has tons of events and activities throughout the calendar year, a searching function would provide a better experience when browsing through the long list of events.
- There are different category of activities available, they are
    - In-reach Programme
    - Art Bazaar
    - Guided Tour
- For **Guided Tour** activities, there is a limit of maximum number of participants which are configured individually depending on each activity.
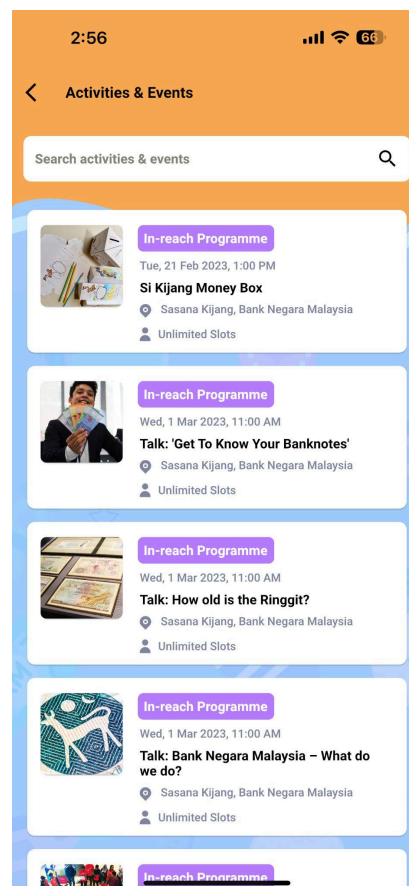
Technical Requirements

- Mr. Power has his own Ui/UX preferences, please refer to sample prototype screen as provided in **Appendix 1** below, and build the mobile application matching to the prototype as close as possible.

- The screen should support infinite scroll with pagination so that the long listing of events can be populated in best performance.
- The mobile application should be run-able in latest android or iOS devices.
- The mobile application should implement industrial recommended architecture design, such as MVC, MVP, MVVM or any other design. (please specify)
- The mobile application can be coded/built with any platform/IDE/language that you are comfortable with.

Submission

Upon the completion of the mobile application, please submit us the following materials:

1. Source Code (hardcopy or any source control repository like Github/gitlab and etc).
2. Installation file/APK/IPA (if any)
3. Video recording and screenshots on the end result.
4. List down and short description on any components/technologies/elements used during the development.

Appendix 1