Attendance System desktop application outline   Salam Sibai

The following is an outline for a simple attendance system application.

1) Used technology:
   a. Frontend: Unity 2019.1.3f1
   b. Backend: Firebase platform
   c. SDK: Simple Firebase Unity.
   d. API: REST api.

2) Features:
   a. Login to record attendance of a user at a specific time.
   b. Sign up to add new user.
   c. Database stores the name, email, photo, time (in Unix epoch) of login, and whether the entry is a login or logout.
   d. Signing in a user requires capturing a photo of the user with the device's webcam (if available).

3) Structure:
   a. Home page: contains two buttons: Login and Sign up
   b. Login page: Users insert their email address into the text field specified.
   c. Information page: The information of the logged in user is displayed, and their attendance is recorded, as well as the timestamp of their entry. From the information page, the user can either go back or exit. Both buttons take the user back to the Home page.
      i. Exit: the user's attendance information is changed to false.
      ii. Back: the user's attendance information stays true.
   d. Sign in page: The user is asked to enter a unique email address, a name, and to capture an image.
   i. Image capture: Once the user presses "capture image" button, the device's webcam is accessed, and the user can then capture and add their image.
   ii. Once the new user is submitted, their information is added to the database, and their attendance is recorded. The Information page is then triggered, and the new user's information is displayed.

- The email attribute is the unique identifier (key) for each user.
- A JSON file that contains some test users is imported into the firebase's realtime database.