جامعة الإمام عبد الرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY
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College of Computer Science and Information Technology

Smart Attendance Management System (SAMS)

Graduaion Presentaion (2021-2022)

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Outline

Introduction

Scope/Limitation

Objective

Prpopsed System

Implementation (method)

Demo

Testing

Conclusion

Inroduction

The modern educational environments require building an integrated system for provisioning of educational resources, as The Saudi Vision 2030 recommends the development of educational systems by applying new technologies, this is where attendance comes with artificial intelligence to plays role in performing the basic daily tasks automatically.

" The goal is not to force the student to attend, but rather to ensure the presence of students and their acquisition of the rich knowledge for their own good and to build the country "

Scope/Limitation

SAMS was created for the university

The project design for ios based system and android-based system

SAMS should be enrolled the student in the courses automatically

The students must have a smartphone device during the class

Objective

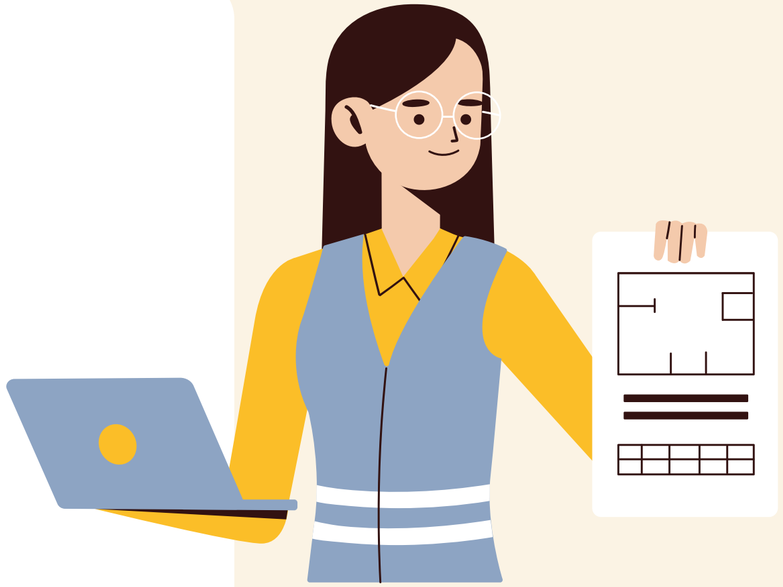
The application should be used in university

Instructors can manage attendance using computerized data managnment

Attendance will be recorded by biometric authentication and student's location

Proposed System

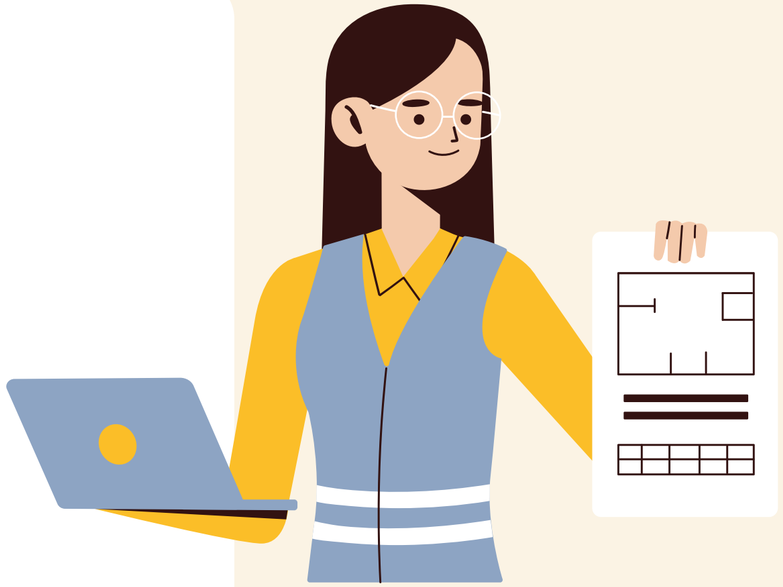
The proposed system is an application to calculate attendance based on :



- Biometric(fingerprint or face id)
- The location of student.

Proposed System

- Take attendance using face ID:
  - Firebase ML model.
  - MobileFaceNet model.
- Take attendance using Fingerprint.
- Location of student.



Implementation (method)

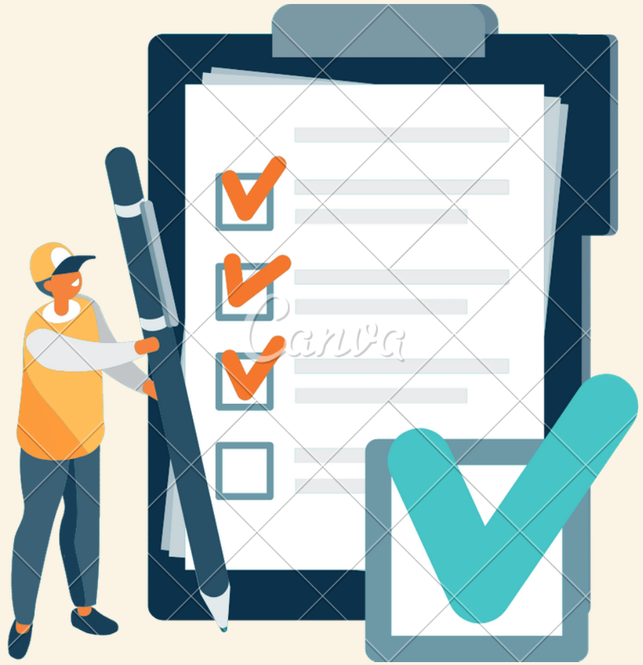
Started with common and instructors' interface after that worked in students interface.

Flutter and Tensorflow Lite with face recognition.

Flutter with authenticate via fingerprint.

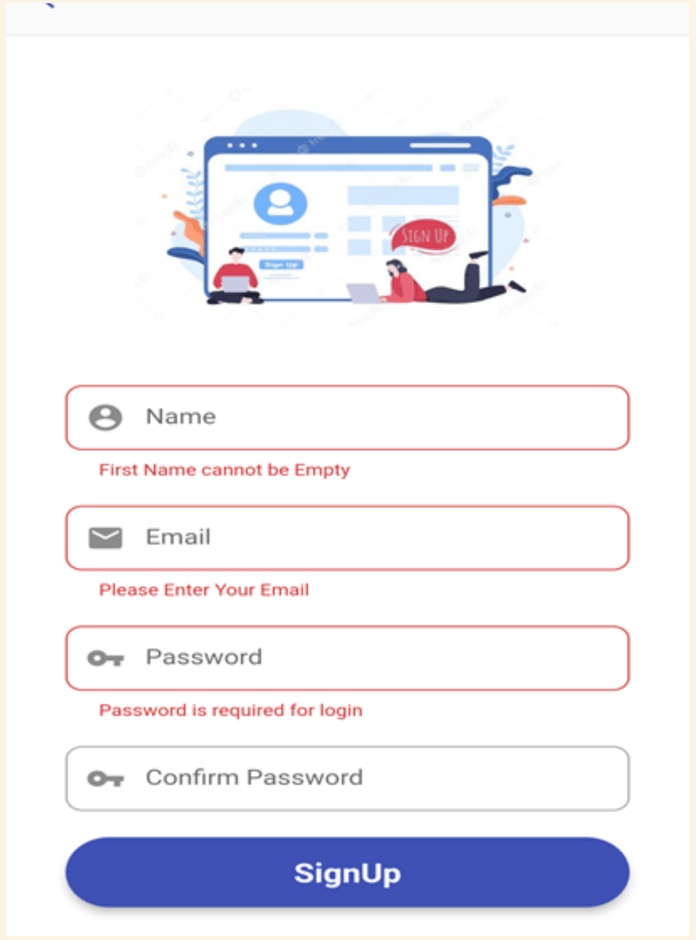
Demo

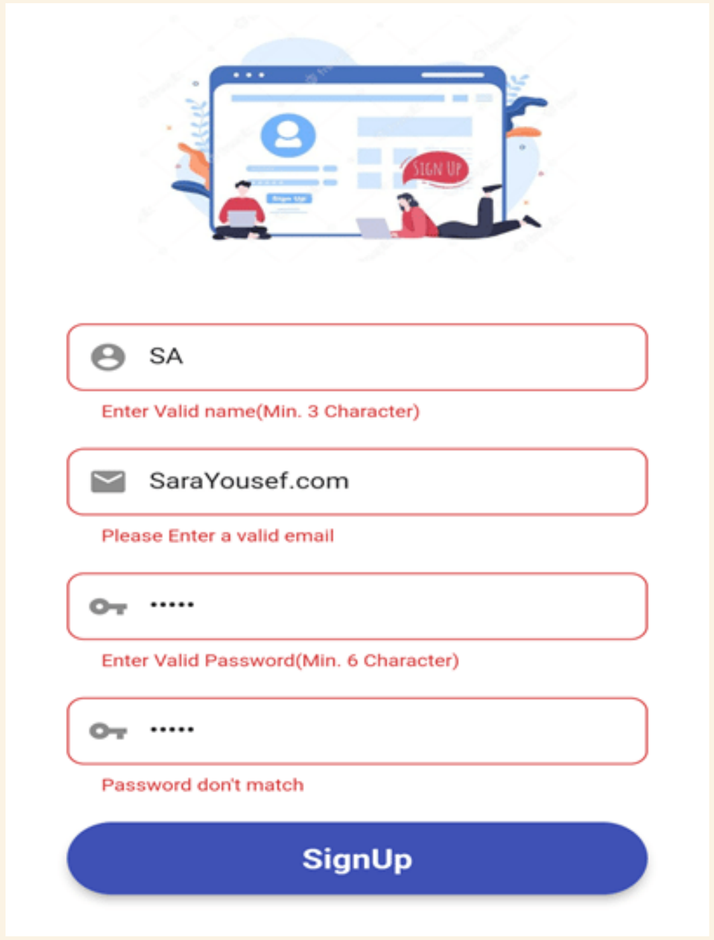
Testing



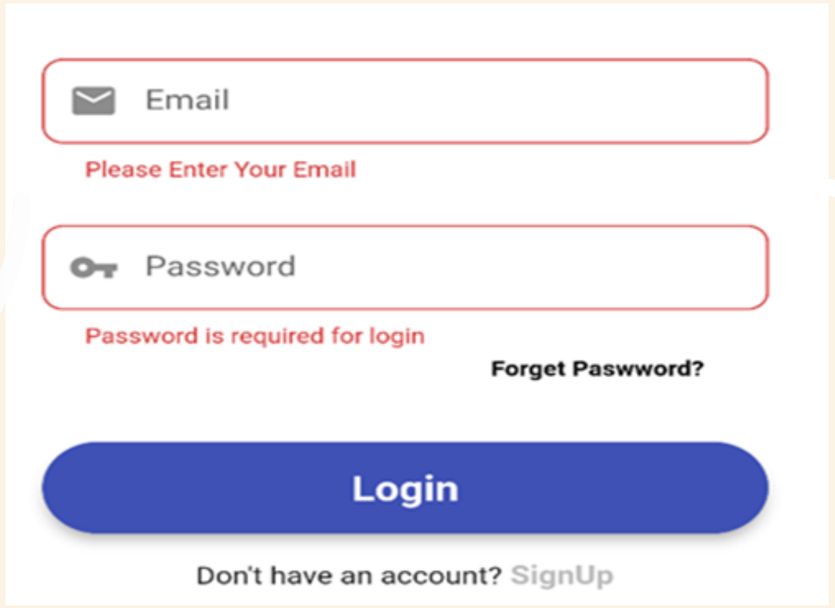
Components Testing

Sign Up





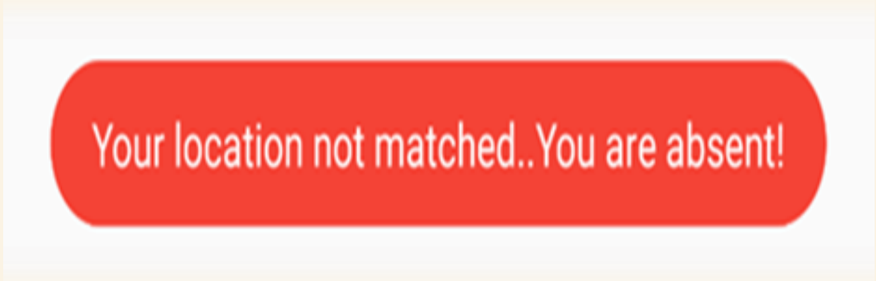
Log In



User with this email doesn't exist.

Your password is wrong

Face and fingerprint interfaces



Section information interface

Instructor and Student home interface

Integration Testing

Combine different units of the SAMS

- Instructor account
- Student account

Security Testing

Password	Face ID	Fingerprint

Conclusion

Findings and Contribution

We found that the Face ID, fingerprint, and location are the most appropriate technology

Lessons Learned

General and technical skills and tools

Recommendation for Future Works

Improve the service of the smart attendance management system and connected with people soft

Thank you!

Do you have any questions?