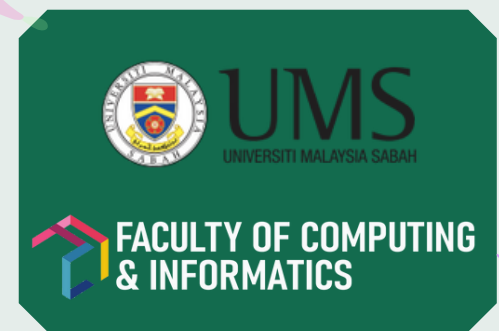


# OPTICAL CHARACTER RECOGNITION IN UMS ECOCAMPUS TOURISM REGISTRATION SYSTEM

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## ABSTRACT

The UMS EcoCampus tourist registration is done on paper. Visitors must register in person at the EcoCampus Visitor Information Centre (EVIC), with a maximum of 2 visitors per registration. So, completing registration for each visitor may take longer. The current system stores records on paper. There is a risk of losing records that cannot be recovered. Also, if visitors fill out a form digitally on their phone, the information is not authentic. To address these challenges, this project integrates OCR into the registration system. The OCR engine recognises characters in photos and converts them to digital. The suggested system uses Firebase ML kit to detect characters and Firestore to store data online. The proposed system will be turned into an Android app using Android Studio. So, visitors must download the mobile application and connect their smartphone to the internet. Visitors must use the mobile application to scan their ID cards to allow the system to recognise and register their personal information. This system will assist visitors register and EVIC employees manage records. The constraint of illumination influences the OCR results in this research. Each environment has its own lighting conditions. Outdoor OCR results have a higher accuracy rate than indoor OCR results, according to tests. The interior light source is limited, causing light reflection on the IC surface.

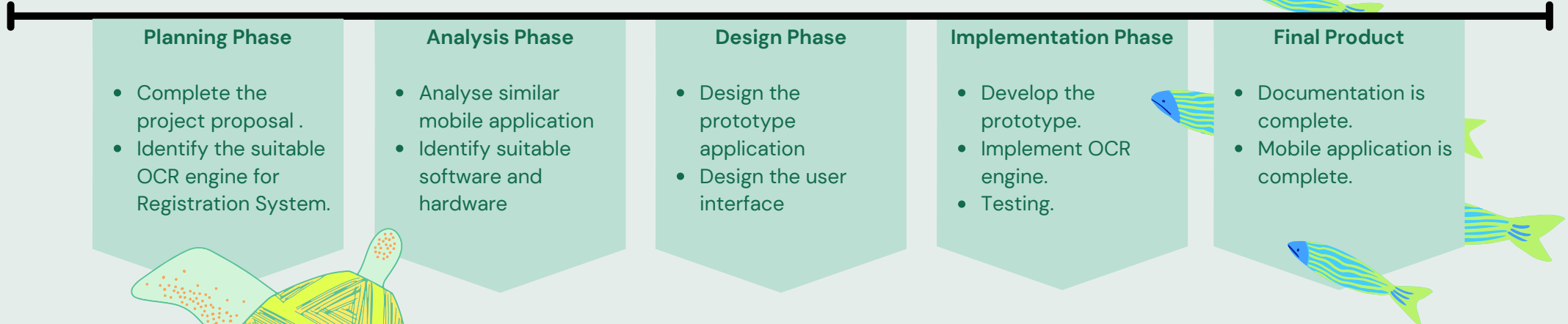
## PROBLEM STATEMENT

- Pen & Paper
  - paper may get damage
  - no digital backup
  - cannot retrieve back
- Inconvenient
  - 10-15 minutes / visitor
  - register 1 or 2 visitors at the same time

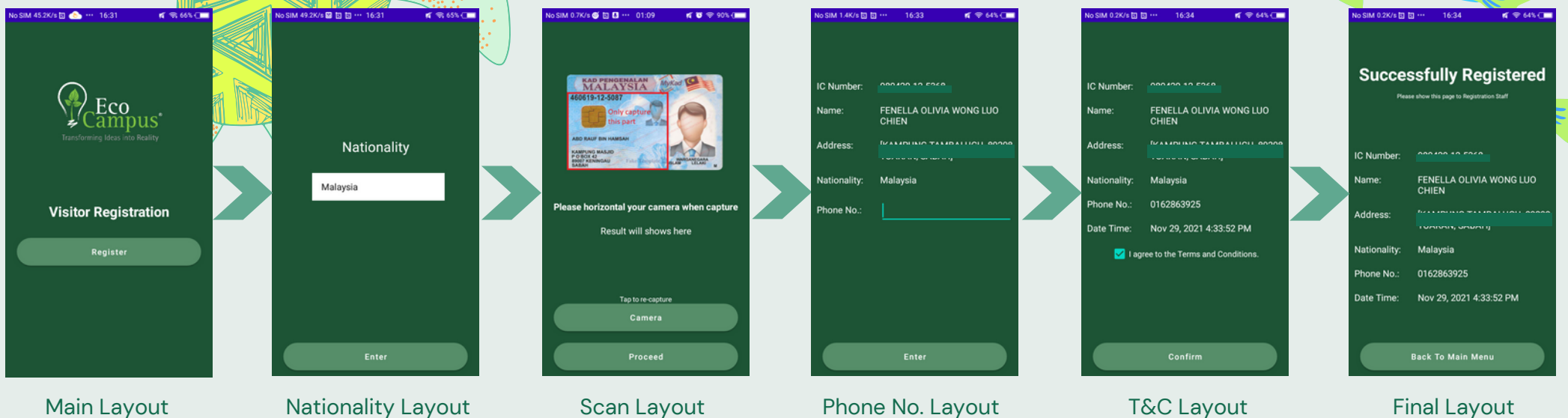
## OBJECTIVES

- To plan and design OCR based registration system that capable in recognize information through visitor's IC image then save the data in database.
- To implement an OCR system in the registration process by using Firebase ML Kit and Android Studio.
- To test the usability of the system and OCR result.

## METHODOLOGY



## IMPLEMENTATION



## CONCLUSION

UMS EcoCampus Tourism Registration System is a system to register visitor with OCR. ML kit and Firestore are applied in this system to recognize character and store data online respectively. This system develops by Android Studio as an Android base mobile application. User only need to install this application into smartphone and connect it with internet connection to use this system.

