




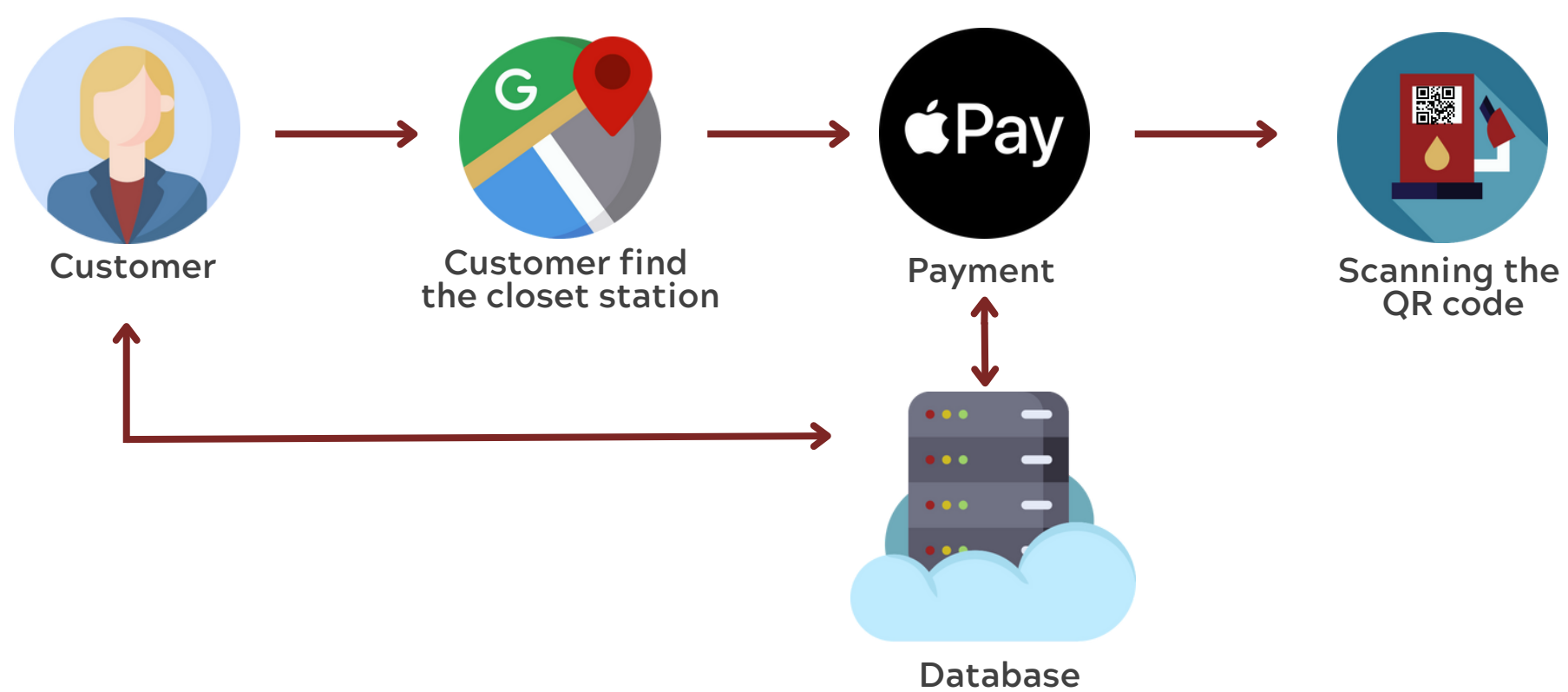
### Introduction

Mahatati is a system that is composed of an iOS application and a fuel pump electronic circuit. The system was designed with the goal to provide safe and fast payment for customers. It allows customers to use the application to pay for the petrol amount they need. The application later will generate a QR code which will be scanned by the scanner that is being attached to our designed fuel pump where the fuel or petroleum meter in the fuel pump will be accordingly adjusted based on the information recorded in the QR. In pursuit of Vision 2030 in building smart cities, we hope that our system will be a starting point in building smart gas stations in the Kingdom of Saudi Arabia.

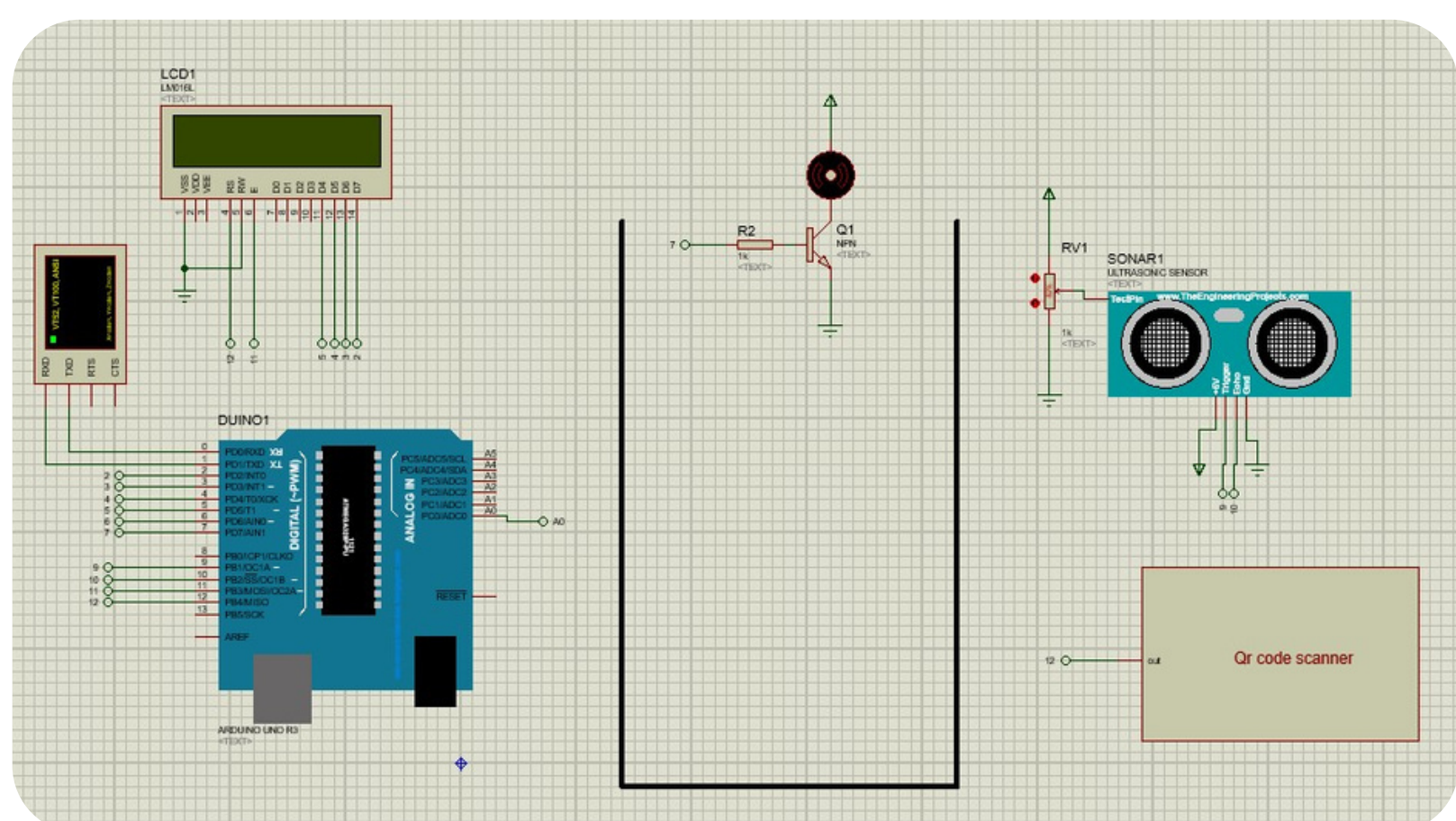
### Objectives

-  **Reducing fraud and manipulation** between customers and the gas station.
-  **Save payment** through the "Mahatati" application.
-  **Helping customers to locate** the nearest station.

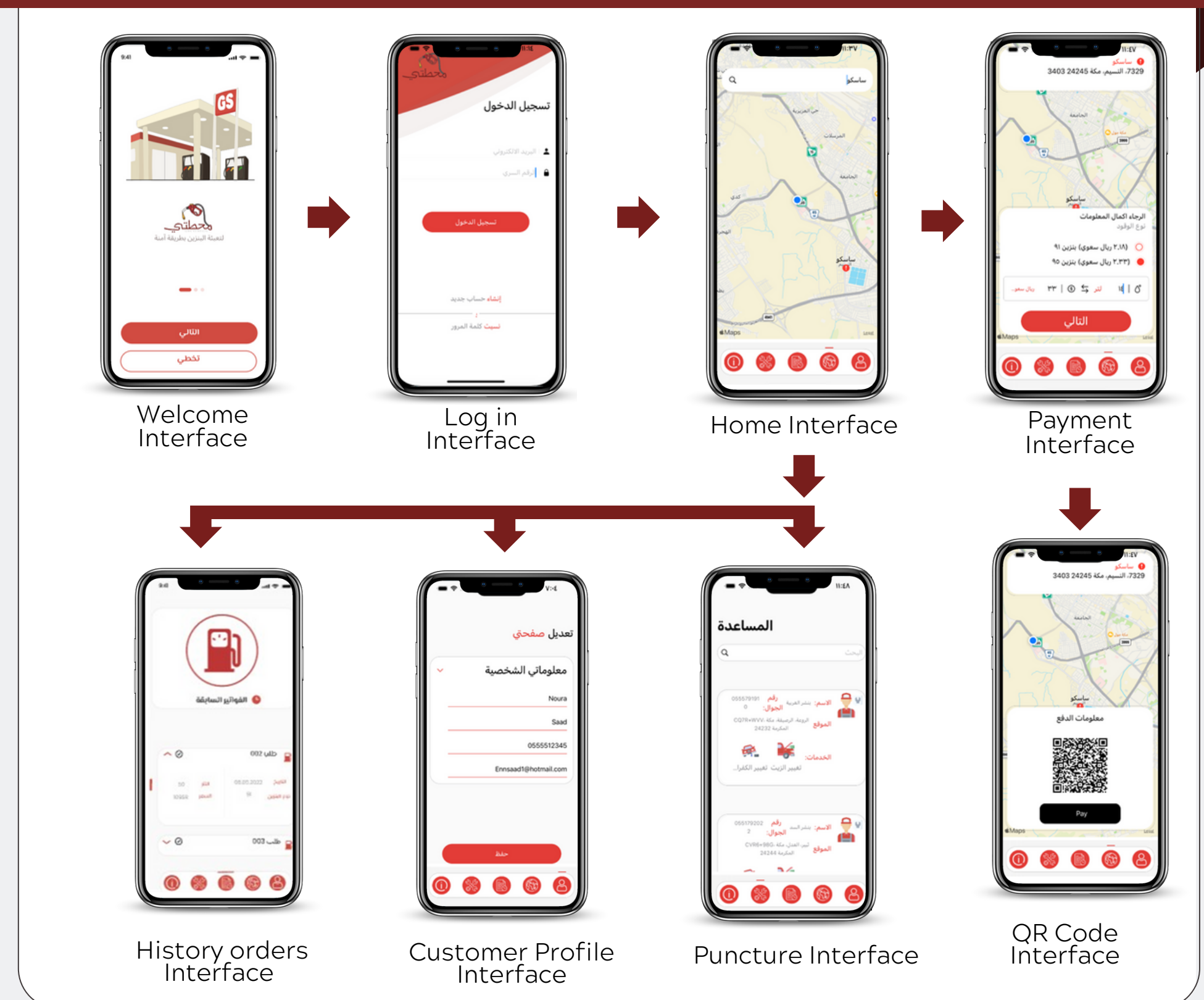
### System Architecture



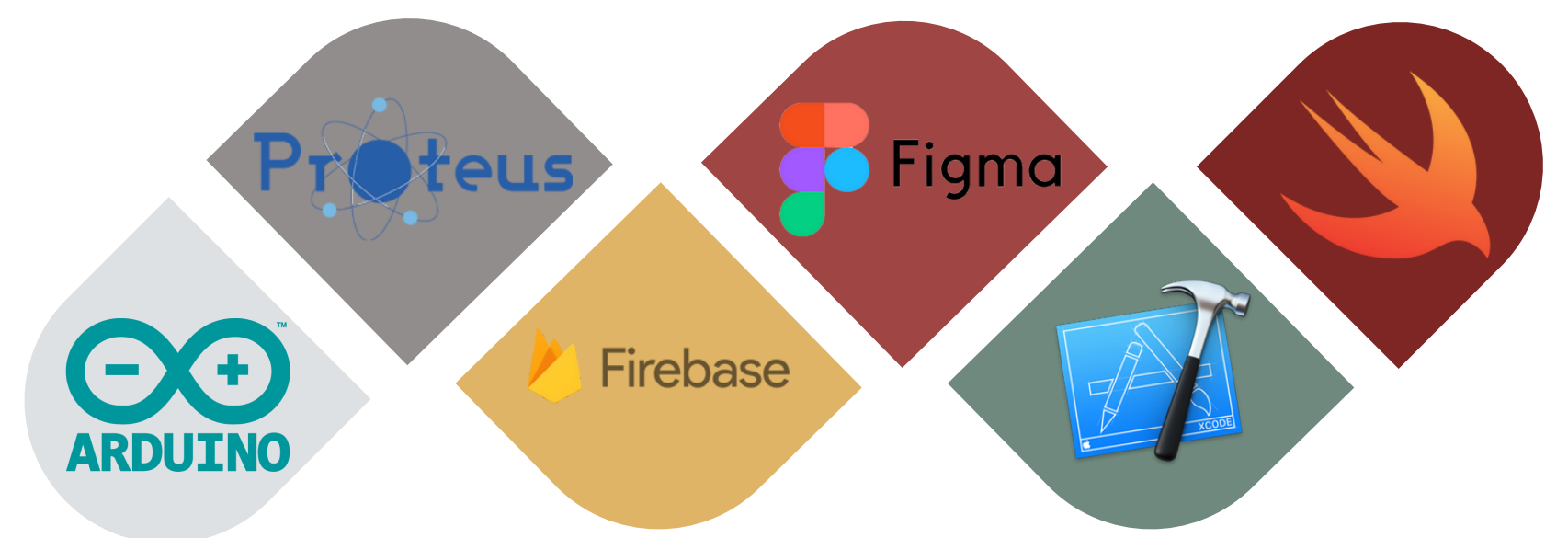
### Fuel Pump



### Mahatati Application Prototype



### Tools



### Future Work

- 01 To include more features to support industry, government, and businesses in Mahatati application.
- 02 To include other types of fuel can be displayed in applications.
- 03 To allow electronic refunding transaction in Mahatati application.
- 04 To include a wifi chip on the fuel pump .
- 05 To make Mahatati application widely available on other operating system .

### Conclusion

We have proposed a complete system that has two main parts an iOS application and a fully designed fuel pump. We believe that Mahatati system will be a source of trust between customers and stations and will eliminate the number of tampering and fraud cases that most frequently occurred in gas stations.

