



# THE SMART KITCHEN



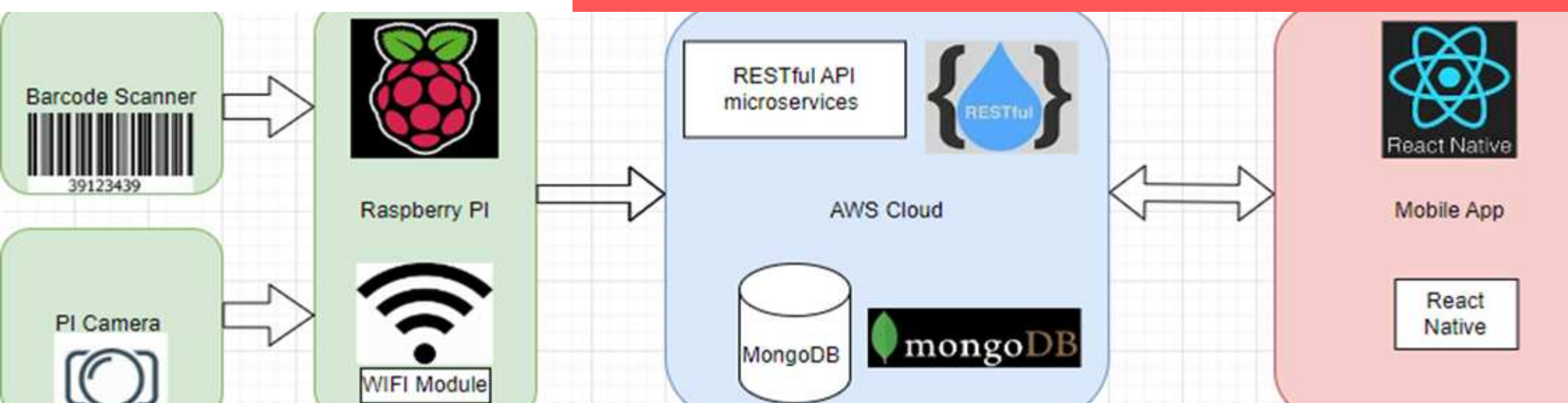
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The Smart Kitchen is a food inventory system designed to help people manage the food in their kitchens, recommend recipe ideas and reduce personal food waste.

The Smart Kitchen uses a Raspberry Pi with a barcode scanner to track food items in your kitchen, and a camera using Optical Character Recognition to track best before dates on perishable items. Once entered, all food items are stored in a 'digital pantry', which can be viewed on a mobile application. Recipe ideas are then generated based on the users food inventory.



## TECHNOLOGIES USED

React Native - An open source UI framework used to create mobile applications.

Optical Character Recognition (OCR) - a technology used to extract text from images.

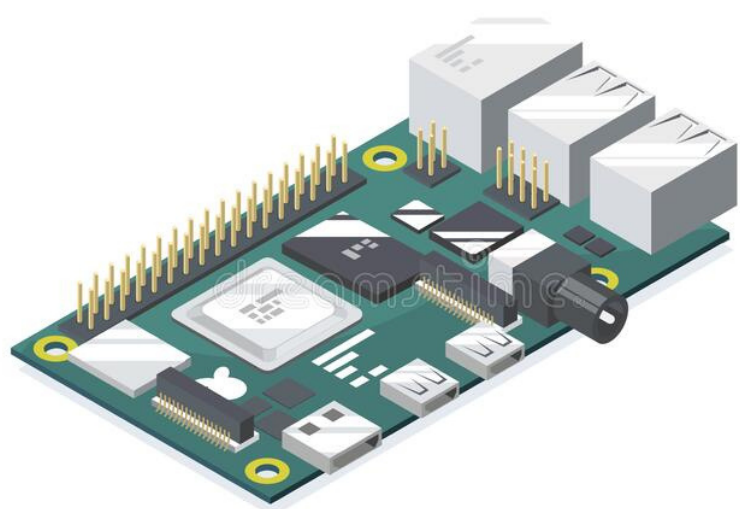
MongoDB - A document oriented database program, used to provide back-end functionality.

Amazon Web Services (AWS) - A cloud computing platform used to host all back-end elements of the application.

## LANGUAGES USED

JavaScript - A dynamic programming language used to create all front-end elements of the project.

Python - A high-level, general-purpose, object oriented programming language used to interface with the Raspberry Pi.



## HARDWARE USED

- Raspberry Pi 4 - A compact, single board computer which runs on Linux.
- Pi Camera 2 - A compact camera designed for the Raspberry Pi.
- Barcode Scanner.
- Smart Phone.