# Abstract

Creating a mobile app that satisfies the end-user and the client is a difficult task to accomplish. Moreover, deciding what software to use for development could be challenging since each software has its own benefits. Comprehending a solution to the underlying problems, the project presented in this paper explores the uses of use cases, react native and agile methodology to create a mobile app that meets both client and user needs. The process in deciding the software, research methods and methodology will be discussed in the later sections.

# 1.Introduction

## Background

The use of smart phones such as iPhone and android has increased exponentially in the recent years, which is proven by the sales of smartphones to the end users increasing from 296 million smartphone sold in a year in 2010 to 1433 million smartphones sold in a year in 2021. And the end-user is expected to grow larger in the near future. Due to the accessibility and versatility in smart phones, they are commonly used than laptops or pc. [[1]](#endnote-1) The vast increase in popularity of smartphones is mostly likely due to the mobile app which is available for any user’s needs. For example, there is a mobile app that tracks the heart rate of a user to provide health advice which could be essential for any user with a weak heart or user that enjoys working out/running. Although the target audiences for mobile apps are huge, developing a mobile app that meets the user needs are challenging.

In this paper I will be developing a mobile app for a nail salon called “Sharon” based in Japan Tokyo, Kita-senju. Nail Salon Sharon is a nail salon owned by Kaoru Ogundiran, in which who is my main client for this project. The nail salon does several different services, such as hand nail gradation, foot nail gradation, etc. The prices of each service are dependent on what the customer orders, but it could range from 20 pounds to 60 pounds. Currently the nail salon uses a third-party website called “Hot Pepper Beauty” to list their menu, booking detail and contact detail.

## 1.2 Problem Statement

There are several software and database used for mobile app development each with its own benefits. I will be using React native as for the software and firebase for database. React native is a mobile app development tool which creates app for Android, iOS and more using React. It is written in JavaScript and rendered with native code. React native was released in 2015 by Facebook and since then has been used in many popular apps, such as Facebook, skype, discord, Tesla, Pinterest, Microsoft outlook, etc.

## 1.3 Objective

# 2.Related Work

React Native App Development (conference paper by Kamali Gupta)

# 3.Methodology

# 4.Project Management

Competitive analysis

In app development, competitive analysis plays a crucial role in the development cycle. Competitive analysis allows the programmer to understand the market, forecast market potential, track competitor pricing and product and many other. For my program I have decided to conduct competitive analysis on two nail salon company, Young LDN and Townhouse nail salon. They are London based nail salon which does other services such as hair and skin.

Young LDN nail salon:

Townhouse nail salon:

# 5.Conclusion

1. (O'Dea, 2022) [↑](#endnote-ref-1)