

MSC PROJECT: MOBILE HAIRDRESSER  
APPLICATION



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“A dissertation submitted to the University of Bristol in accordance with the requirements of the degree of Master of Science by advanced study in Computer Science in the Faculty of Engineering.”

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# 1 Introduction

The COVID pandemic has brought with it a shift in perceptions around leaving the home and with that a desire for more homeworking and access to remote services. For example, remote workers show an increase in job satisfaction [?, ?], [?, ?], are more productive, have better mental health [?]flexjobs, 2020) and even make more money (ADD CITE).

New Product Development refers to the entirety of processes leading to bringing a product to market and encompasses several steps as seen in figure 1 below.

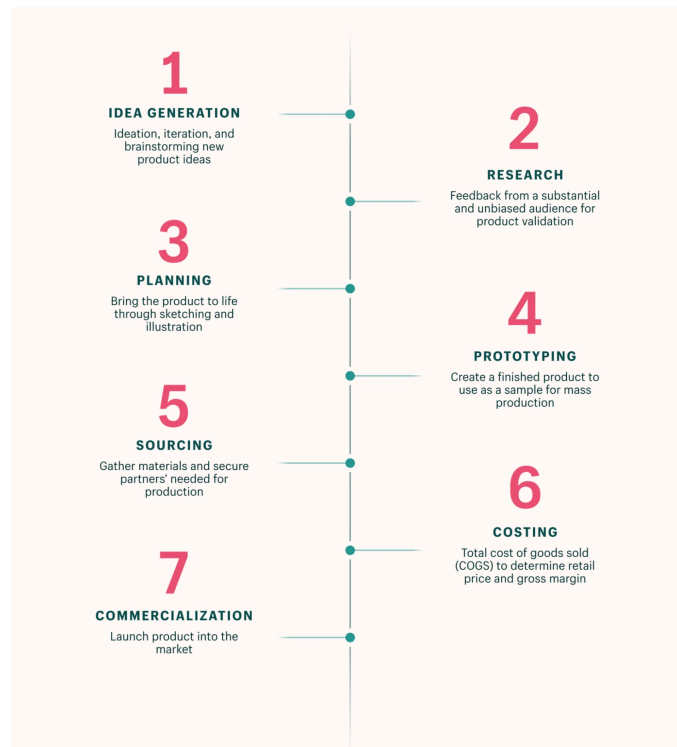


Figure 1: The 7 Steps of New Product Development  
[?]

## **1.1 Ideation and Concept**

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

## **1.2 Market Analysis**

In order to gauge whether there is a market for the proposed analysis, a survey was carried out in which users were asked about whether they could see themselves using the application features, among other things.

### **1.2.1 Existing Applications**

### **1.2.2 The Target User**

### **1.2.3 Programming Language**

When deciding on the programming software, several metrics were taken into consideration, including cross-platform functionality, speed, speed of development and performance. For this reason, Dart and the corresponding Flutter software development kit (SDK) were chosen for the primary software. Flutter is a cross-platform development kit, meaning that it will natively run on both iOS and android applications created by Google [?]. Dart is compiled ahead-of-time into native ARM code giving better performance compared to other similar development kits, such as React Native and the user interface is implemented within a fast, low-level C++ library giving great speed to the application. Dart has also seen a large increase in usage within recent years, jumping up 532% from 2018 to 2019 [?, ?] meaning that there is now an extensible list of third-party plugins available and a large community.

## 1.3 User Personas

The creation of user personas representing fictitious, archetypal users is an essential part of application development [?, ?] and allows a deep understanding of the target user to be sought and implemented within the features and design of the application [?, ?]. Although there are some shortcomings to qualitative persona generation, such as validity concerns and user bias [?, ?], which are addressed by other methods, such as data-driven personas [?, ?], we have decided to stick with qualitative methods, which allow for enough brevity and depth for the scope of the project. Here we created 3 personas, which are discussed in detail below.

- Persona 1:

INSERT PERSONA INFO

- Persona 2:
- Persona 3:

## 1.4 Sprints

### 1.4.1 Sprint 1 - Setup

During the first sprint, the task involved setting up the environment in preparation to begin development. For the editor, Android Studio was