Hot Topic [Quarter 2, 2019]

**502.714 – Hot Topic in Software**

## ****563.783 – Hot Topic in Networking****

The Imperial Management

Hotel Application

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# **1. Introduction**

## 1.1 The Accommodation Industry

The accommodation industry is quite large on a global scale. People are forever coming and going, whether it is for vacation or for business, and there will always be a demand for accommodation for those who are temporarily visiting a location. This directly influences the demand for Housekeepers – staff who clean rooms after they have been used for the room to be fit for use by another customer. In small-to-medium accommodation businesses, communication can often be a bit of a struggle between Housekeeping and Front Desk staff, generally requiring in-person communication in order to assign a room that requires cleaning, and it can take a lot of time bringing two busy people together for information to be passed between the pair.

## 1.2 Our Scope, Aim and Objectives

Having identified that a lot of time can be lost between Front Desk and Housekeeping while relaying information, we saw an opportunity to create a subscription-based android application that will aid in the communication between Front Desk and Housekeeping staff members, removing the need for face-to-face relaying and will essentially save time – which is our aim; To save time between Housekeeping and Front Desk staff members.

As we have limited time to work on our application, we have been very selective as to what our objectives should be while keeping in mind as to what future features could be incorporated into our android application.

Our objectives for our application are:

1. For the application to have a UI which will be easy enough for staff - of all ages - to find easy enough to use while minimizing distractions as much as possible.

2. The application must have a clear display of all rooms and their status for Front Desk, which they can then assign a certain room to a Housekeeping staff member to clean.

3. The application must display all rooms assigned to a Housekeeping staff member, where they can then change the status of the room to ‘Currently Cleaning’ or ‘Cleaned’.

## 1.3 Measurable Organisational Value(s) (MOVs)

Operational Impact is one of our main areas of impact, as the application will allow accommodation staff to change how they communicate required tasks. We can safely say, through observation, that each staff member that manually reports a rooms status can roughly take 10 minutes a day in doing so. It might not look like much, but any smart businessman/businesswoman can easily identify how a few minutes each day can accumulate over the week, the month and year per staff member working for them - and a loss of time is a loss of money. This brings encouragement for those experiencing these issues in to finding a better solution, to which we offer via our android application.

This leads us into another area of impact that affects us directly – finance. As our application is subscription based, we’ll see an income head our way. We’ve set our monthly subscription price to $99NZD, including GST – and for one client, that’d total up to $1,188NZD for a year. We aim to have 150 clients by the end of the first year of our launch, though there is no real way to calculate how much that’d bring in as we won’t be able to effectively predict when throughout the year they’d join. However, with the 150 carried over into the second year of our launch, that’d pull in $178,200\* – without calculating in any new clients we may have gained along the way. As you can see, we may start off slow in the beginning, but over time we will pick up and earn more revenue.

\*  This figure does not consider taxes and other costs we will have, such as maintenance.

# **2. Literature Review**

(Sanjit and Krishal Enter here)

# **3. Problem Identification**

# **4. Methodology**

The methodology we will be using throughout this project will be that of the Agile methodology – more specifically, the Agile Scrum methodology, as we have limited time and require flexibility to change parts of our project as it goes through development. This means we will have our product owner (supervisor in this case), work closely with us - the team - to prioritize what needs to be accomplished in the next ‘sprint’ (Blueprint, n.d.).

## 4.1 Resources

### **4.1.1 Lucidchart**



Fig. -. (Lucidchart, 2019)

Lucidchart has been an important tool for us to use to create our diagrams, such as our ERD for our database design.

### **4.1.2 Android Studio**



Fig. -. (Android Studio, n.d.)

Android Studio’s IDE will be our main tool used throughout our conceptualization phase. We’ll be creating our application using Java, as it’s the most familiar with our developer.

### **4.1.3 Office 365**

Three programs provided from Microsoft Office 365 has been and will continue to be used throughout this project. Word will be predominantly for documentation and proposals, PowerPoint for our presentations, and Project used for the creation of our Gantt Chart – which will be followed closely for scheduling throughout the project.

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Fig. -. (Microsoft, n.d.) Fig. -. (Microsoft, n.d.) Fig. -. (Stratel, n.d.)

### **4.1.4 Google Docs**

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Fig. -. (Google, n.d.)

We have created a Google Docs via our group on Canvas, where we could throw up our notes throughout the project, which allowed everyone to be able to proof-read each other’s work and assess where everyone was and what needed to be done.

### **4.1.5 Photoshop**

A picture containing monitor

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Fig. -. (Fred the Oyster, 2014)

Photoshop was used only for our UI design for the application, as it provided layers that made edits a lot easier as they were required.

### **4.1.6 Messenger**



Fig. -. (Facebook, 2019)

Messenger is used between the team for communication purposes.

# **5. Risks and Limitations**

# **6. Timetable**

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**Breakdown:** Cara – Development

Krishal and Sanjit – Research and Documentation

# **7. References**

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