

**BeautéPanda: Android Application for Beauty Enthusiasts**

**BIT304 FINAL YEAR PROJECT I**

**LITERATURE REVIEW**

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1. **Introduction**

There is a proverb in the English language that says ‘beauty is in the eye of the beholder’ which means different people may have a different idea on what is considered attractive and beautiful. Regardless what the proverb says, the society often judges women by how they look and present themselves. Because of this issue, many women are using makeup to cover their flaws so they are considered beautiful and attractive by the public, especially the opposite gender. The earliest use of makeup can be traced back to ancient Egyptians era in 10,000 BC. At that time, men and women rouged their lips and cheeks, stained their nails with henna and lined their eyes and eyebrows heavily with kohl. Makeup was stored in special jars that were kept in special makeup boxes. Women would carry their makeup boxes to parties and keep them under their chairs (Chaudhri & Jain, 2009).

Today, similar practice can still be found, although men don’t wear makeup like in ancient Egyptians time anymore. We have lipstick and blush to give colors to the lips and cheeks, eyeliner to line the eyes and eyebrow pencil to make the brows thicker. However, one difference between the modern era and the Egyptians time is that women don’t really carry around makeup boxes to parties anymore. Women now are using beauty services to prepare their makeup and hair before the party starts. These services can be offered by makeup artists and beauty salons. Because the makeup is already done by professionals, women don’t have to worry about the makeup, thus it becomes unnecessary to bring makeup boxes to parties.

The use of makeup artists actually have started from the Egyptians time. They were actually servants for people from the higher class in the society, who could afford to hire someone to take care for their physical appearance. Only the rich and famous could afford makeup in the past, such as royals and theatre performers. Therefore, it can be said that the true original makeup artists were the servants to the wealthy, the wealthy themselves, or the theatre actors who did all of their own makeup (Christine, 2017).

In the 20th century, makeup artistry began to gain acceptance as a real profession due to several factors. The advancement in cinematographic technology allowed rapid development of films in early 20th century, which means the film industry required a lot of people to do the actresses’ makeup. This was the beginning of makeup artist being recognized as a real profession. Additionally, by the 1920s, the fashion show had gone mainstream. Retailers throughout the country staged shows, often in a store’s restaurant during lunch or teatime. This means that makeup artists were needed to paint the faces of the fashion models so they would become attractive during the show (Fortini, 2006). These factors contribute to popularity of makeup among the general public, as young women watched films and fashion shows at that time, they would want to look like the actresses and models. However not everybody had the skill to do their own makeup, thus it lead to the popularity of using the service of makeup artist by the general public.

Now in the 21st century, cosmetics are affordable and used by women from every social class. Because makeup is not exclusive to the rich and famous anymore, girls are taught by the society to experiment with makeup to increase their attractiveness from the young age. Different amounts can be applied as needed, and it works as a temporary boost in self-esteem. What is so appealing to most women about cosmetics is that it can be a quick an easy way to temporarily solve beauty problems (Britton, 2012).

Based on what we have discussed, we have created an android application called BeautéPanda to help women to find beauty services for special occasion that they have to attend, such as weddings, parties, graduation, etc. This application will also help the user to make appointment with the makeup artists or beauty salons that offer the beauty services. From the makeup artist point of view, this application will help them reach their target customers and become more known to the general public.

1. **Makeup as a Social Standard**

There is an unwritten rule that ‘require’ women to wear makeup and do something nice to their hair when they want to attend an event. It has become a standard in the society. However, this ‘rule’ is actually helpful because women who wear makeup will become more self-assured, and this can help them to socialize when attending an event. Wearing makeup helps women to increase their confidence because it is something that can be done quickly to improve their appearance temporarily (Scott, 2007).

Unfortunately, not every woman has the skills to do her own makeup nicely. It requires a lot of practice to become an expert in doing makeup, which can be time consuming and expensive. Hence, most women prefer to hire makeup artist or go to beauty salons to do their makeup and hair before attending an event. Because of this reason, makeup artist is needed to help women to meet the social standard of wearing beautiful makeup to attend events.

1. **Highlight of the Current Practices**

*Makeup customers still have some difficulties to compare makeup artists and contact them from one application*

At this time, customers who want to find makeup artist usually have to search through Instagram or Facebook because in those social media most makeup artists have an account to post photos of their makeup and their contact details. They have to search for hashtags such as #makeupartist or #makeupartistbali to find the service in their current location (for example in Bali for this case). The search result will be plenty, and the customers have to open the makeup artists’ account one by one to see the photos. If they are interested with some makeup artists, they have to contact the makeup artists one by one using other application, for example Whatsapp or Line. This is because usually the makeup artists do not respond to direct messaging in Instagram or Facebook.

*Makeup artists have troubles in offering their service and reaching the target market*

Currently, makeup artists do not have special application that can be the platform or marketplace to offer their service. They only use social media such as Instagram and Facebook to become known by the customer. Reaching the targeted customer is difficult if social media is the only way to promote themselves. Furthermore, most of these makeup artists do not have a physical building as their beauty studio, thus it is harder for them to be recognized by the customers.

*Existing beauty-related applications do not offer makeup and hairdo services*

There are applications such as Go-Glam, HouzCall, etc. in Indonesia where customers can order beauty treatments such as haircut and massages. However, those applications do not offer makeup and hairdo services, which are important in the beauty industry. Besides, the applications do not show the list of people who are available to provide the service and customers cannot select specific person to provide the service. This means customers cannot see the feedback from other customers after receiving the service from certain people from the applications.

1. **Proposed System**

In this modern time, makeup is important to many women from all social classes. It has become a necessity especially when there is an event that has to be attended. However, there are some difficulties to find people that offer makeup service because there is no application that gather all makeup artists and beauty salons in one platform. Because of this issue, the system that we have proposed will help to solve this problem. It is an android application where makeup artists and beauty salons can sign up and post photos and information about themselves. Customers can also sign up to search for the makeup artists and view their profile, read and give feedback, and contact the makeup artists directly within this application. In addition, there will be news section in the application where customers and makeup artists can read about beauty-related trends and information.

This application will also assist the customers to send messages directly to the makeup artists that the customers feel is interested with. Through this messaging feature, customers can ask for further information and if they want to use the service of that makeup artist, the makeup artist can ‘create an appointment’ where the customer should confirm. This is to make sure both parties have agreed to meet up for the makeup service to be delivered. After the confirmation, the appointment will go to order list and the application will send notification to both customers and the makeup artists so they will not forget about the meeting. The payment will be done directly by the customers to the makeup artist after the service has been given.

1. **Methodology and Technique**

**Methodology**

We are developing this system using Agile methodology. Considering that mobile application development is relatively new, we believe that more traditional approach such as Waterfall would not be suitable in developing mobile application. Mobile technology and trends are always changing, which means traditional software development methodologies would be unable to handle these challenges and the technical limitations that mobile market has (Khalid, Zahra, & Khan, 2014).

Agile is suitable for mobile application development because it is based on people and embracing their changing needs. It is a good approach for flexible and turbulent environment such as mobile market, where changes can happen anytime. Moreover, the team that develop the application using agile should have a main focus towards fulfilling customer requirements (Khalid, Zahra, & Khan, 2014). Therefore, we have chosen agile because the characteristics of mobile application development are aligned with the core value of agile and it is suitable for the ever-changing condition of mobile market.

**Technique**

For our project, we will use grey-box testing. It is a combination between white-box and black-box testing, where the tester has limited knowledge of the internal working of an application but has the knowledge of fundamental aspects of the system (Khan & Khan, 2012). The purpose of this testing is to any defect that may be created unintentionally because of improper structure or improper usage of applications (Acharya & Pandya, 2012).

We didn’t choose white box testing because this type of test should be carried out by expert tester and it requires the tester to look very thoroughly through the codes to find errors, which can be time consuming. We didn’t choose black box testing because we as the application developers have some knowledge about the system. Additionally, the test coverage might be limited. Because of the reasons above, we have decided to use grey-box testing as it is the most suitable for our application.

1. **Tools and Software to Be Used**

* **IntelliJ IDEA Community Edition**

IntelliJ IDEA is an integrated development environment that is suitable for creating web and android applications. However, we will be using community edition which is free and only works to develop android application. Regardless, it is hailed as the most intelligent and user friendly Java IDE, which can and will make the developers more productive. This is because IntelliJ IDEA is able to build its syntax tree, creating references between classes, variables, fields, methods, and their usages, analyzing the execution flow, and many more. Therefore, it can provide code completion to developer, help to quickly navigate through codes, and provide error analysis and suggestions to fix the errors (Cheptsov, 2016).

* **Gantt Project**

Gantt Project is an open source tool for project scheduling and management. This application will help us create tasks and milestones, organize tasks in a work breakdown structure, draw dependency constraints and create baselines (Gantt Project , 2018).  However, in Gantt Project, every task duration should be input as days and cannot be set as hours. It might also be confusing for beginners who just started using this application.

* **Adobe Photoshop**

Adobe Photoshop is a software for retouching digitized photographic images. We will be using this software to design the user interface, logo of our application and other graphic needs (Norr, 2018). The main advantage of using Adobe Photoshop is that there are plenty of design tools to use. However, **the interface can be very overwhelming to new users of the program** (Gaille, 2016)**.**

* **Microsoft Visio**

Microsoft Visio is a software to create diagrams. It offers a wide variety of built-in shapes, objects, and stencils to work with (Krause, 2017). We will be using this software because the user interface, functionality and user experience are very similar to Microsoft Office, thus it will be easy to use and navigate through. Moreover, it provides templates and general drawing tools which allow users to design professional looking diagrams and process objects quickly and easily (Rutherford, 2016).

1. **Challenges to Be Overcome**

*Lack of experience in developing an android application*

We have learned Java before and create simple desktop application, but we have never learned the implementation of Java in creating an android application. This also will be our first time working using IntelliJ IDEA. Because of this, we must do many research and learn from online tutorials to understand how to build an android application.

*Creating a beneficial and easy-to-use application*

We want our application to deliver the best user experience so that the users will be satisfied and loyal to our application. To reach this goal, we must carefully design the interface so that it will be easy to understand and use it. Furthermore, we are hoping that our users will get as many benefits as possible from using the application, so they are not wasting their time and phone memory for installing our application. Therefore, we have to design this application deliberately to meet the user requirements.

1. **Conclusion**

Beauty has always been an interesting subject that the society pays attention to. As time goes by, people from all social classes can afford to look more beautiful by getting their makeup and hair done. This is supported by the availability of cosmetics in the market and its price become more affordable. Makeup has become a need for women, whether it is for everyday activities or special events.

The popularity of makeup has created a new field of work for the beauty industry, which is makeup artists. This profession helps women to do their makeup and hairdo, to be ready to make an appearance in an event. On the other hand, it still difficult for customers to find makeup artists although demand for makeup is high. It is hard to find information about the makeup artists, contact them and make appointment within one application. Hence, to solve this problem, we are proposing to create and android application called BeautéPanda, which will help customers to find makeup artists, and facilitate makeup artists and beauty salons to offer their service and be known by their target customers.

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