Billing Barber Shop (An Implementation of GoodBarber App Builder)

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Abstract: The research objective is to develop a Billing Barbershop application by implementing GoodBarber App Builder in application development. The research method used in this study consists of 5 parts, namely the literature study method, data collection method, analysis method, design method, and the development method used is extreme programming. From the research results, a Billing Barber Shop application has been developed by implementing the GoodBarber App Builder which is designed to consist of login, home, billing, orders, product, and users forms. The test results are known in Usability testing, Compatibility testing, Interface testing, Low level resource, Performance testing, Operational testing, Installation testing, and Security testing stating very good with an average percentage above 80%. But in Service testing, choosing poor because Billing Barber Shop still uses the internet as a connection to data using Zapier Add-ons and Google Sheets.

Index Terms: Billing; Barber Shop; GoodBarber App Builder, Mobile.

1. Introduction

Barbershop or what people call Barbershop is a growing business in its era [1], whether it's just a different name, but this business has very long-term prospects where everyone can be sure to have hair that is always growing. The main difference between a barbershop and a salon is that a barber is usually trained to cut men's hairstyles with the skill of using a clipper, while salon stylists are trained to cut hairstyles with the art of styling hair using scissors [2][3][4]. Some people decide to come to a barbershop not only to get their hair cut, but also to get services that are not available at a regular barbershop, such as beard and mustache trimming, hair coloring, hair massage, and so on. The main services offered by barbershops include hair cutting and shaving (shaving the mustache and beard). "Especially in Indonesia, there are additional services, namely cream baths and massage sessions after haircuts [5][6].

Billing Barber Shop is a barbershop system that can help manage a barber shop throughout and can usually be used on mobile, tablet & desktop with some features of barber shop management and especially financial reports. Several studies have developed barbershop applications, some research results have resulted in a barbershop search [7], queues [8], and implemented on mobile devices [9] and web-based [10]. From this research, it does not implement GoodBarber App Builder in the barber shop application development process. GoodBarber App Builder is an Application that offers the best experience to mobile users without mastering programming knowledge to produce a professional application. iOS and Android native apps can be generated with a UI and UX look that results in higher engagement and profits. True to the motto of the app is "Code-free App Builder for people who are serious about design and UX". There are several templates provided by GoodBarber App Builder such as eCommerce App, Pickup & Delivery App, Restaurant App, Newspaper App, Online Course App, Radio App, Content Creator App, and many more available for free. GoodBarber

App Builder also provides third party platforms (WordPress, Airtable, SquareSpace) or can achieve more in less time, thanks to Zapier and Make or you want to add additional features, there are extensions for that in the Extension Store provided [11]. The use of GoodBarber App Builder is a differentiator in the application development carried out by the author, and a small number of them have not discussed the use of the application. GoodBarber made the choice to use native technologies in its app builder so that your app is fast, secure, and perfectly integrated with the operating system of your end user. Doing so, your app benefits from all the innovations made by Apple and Google to provide the unique user experience only a native app can provide, with things like in-app purchases, one click checkout with Apple Pay, push notifications, offline usage, fast and smooth app browsing, a beautifully integrated design [11]. This is a bold choice and our customers see a true difference compared to other app builders.

2. Research Method

Research activities are carried out from December 2021 to March 2022 in collaboration with independent research with the Institut Teknologi dan Bisnis Muhammadiyah Bali, STMIK Indonesia Banda Aceh, and supported by a team of experts from KITA Institution. The research method used in this study consists of 5 parts, namely the literature study method, data collection method, analysis method, design method, and development method. The literature study method was carried out by collecting information from various literature sources, the data collection method was carried out by questionnaires, then analyzed using descriptive analysis methods. The purpose of the analysis is to determine the system requirements to be made. The development method used is extreme programming. Extreme Programming (XP) is a software engineering process that tends to use an object-oriented approach and the target of this method is a team formed on a small to medium scale and this method is also suitable if the team is faced with unclear requirements or changes in requirements. very fast [12][13]. In the testing phase, 30 students were involved in using the Billing Barber Shop application. There are 9 questions and tests consisting of Usability testing, Compatibility testing, Interface testing, Service testing, Low-level resource testing, Performance testing, Operational testing, Installation testing, and Security testing.
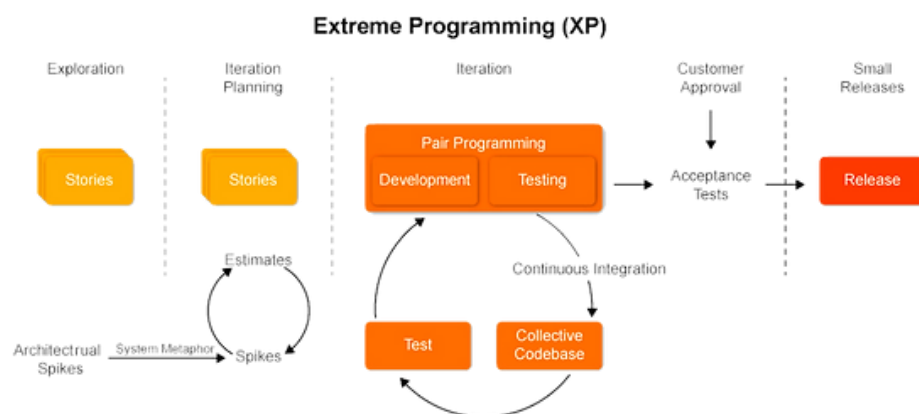

Fig 1. Stages in Extreme Programming (XP)

3. Result and Discussion

3.1 Results
In the process of making this application using GoodBarber, which has features to create native apps, progressive web apps for both Android and iOS. At the stage of making the application, it is done online via the link: https://www.goodbarber.com/. Next, the design of the Billing Barber Shop application needs is carried out which can be seen in Figure 2.
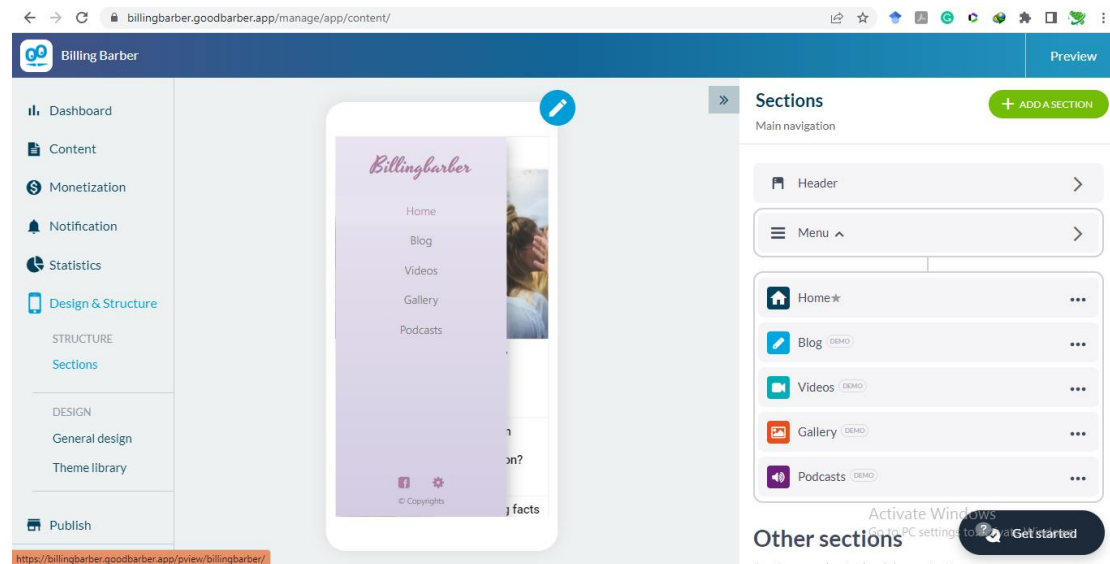
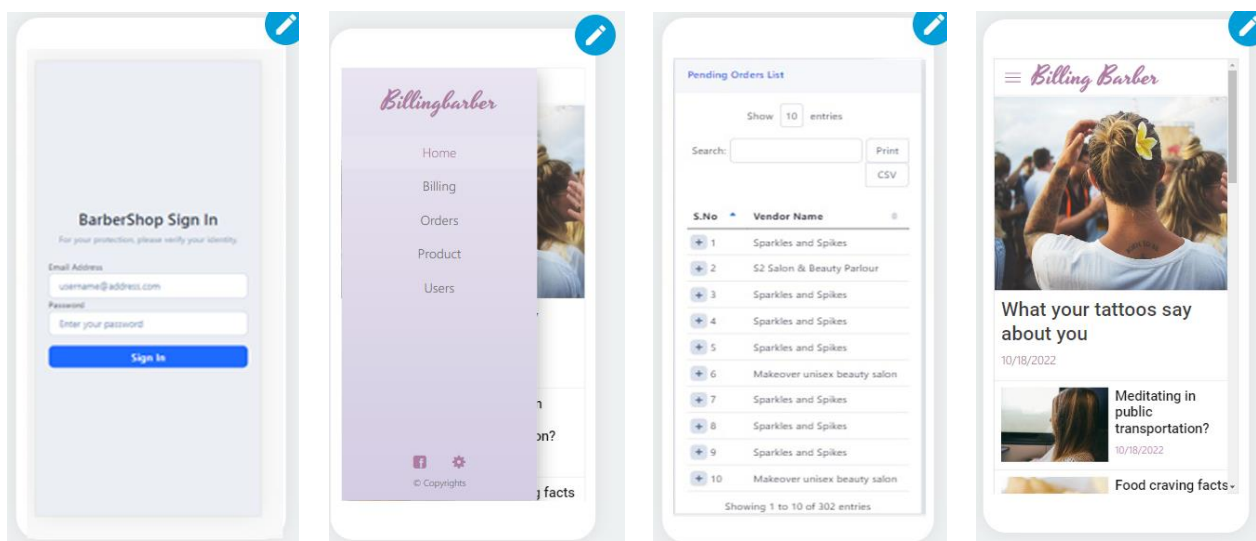Fig 2. Billing Barber Shop App Design Page with GoodBarber

Fig 3. Billing Barber Shop Application Results

Furthermore, adjustments are made to the design and menu. The designed results consist of login, home, billing, orders, product, and users forms. For billing data, orders, products use the Zapier extension as an add-on that will connect to Google Sheets for data retrieval. The Zapier extension connects the app with thousands of other online services and manages automation without having to code. In the Zapier Add-on settings, several automations and actions are used such as sending push notifications, adding data, deleting data, recording every transaction, and several other important reports.

3.2 Discussion

GoodBarber currently has more than 30,000 apps published by its users with more than 40 million downloads. However, this application requires users to pay 30 euros/month. Although the application can also be used for free with limited services. The GoodBarber application has several features, namely:
a) User Experience
   1. Many themes provided
   2. Design that can fit all devices
   3. Many types of menu design and content
   4. Provide photos and can also upload your own photos
b) Backend
   1. Can create many sections, such as articles, photos, Twitter, Instagram, etc.
   2. You can also create About Us, Form, Contact Us sections
   3. Sections and designs can be adjusted (customizeable)

c) Content
  1. CMS
  2. Compatible with YouTube, flickr, WordPress, Calendar, etc.
  3. Provides search, filter, pagination features
d) User Privilege
  1. There are login, logout, sign up features
  2. Can be connected with Facebook and Twitter
  3. Provides comment, sharing, mailing features
  4. Users can upload content
e) Addition
  1. There are application statistics
  2. Provides application trends and rewards
  3. Does not provide database features, only user privileges
  4. To deploy to android, you have to pay

In the next stage, testing was carried out by application users, which involved 30 students to use the Billing Barber Shop application. There are 9 questions with answers Poor, Average, Good, Very Good asked which consists of:
1) Usability testing, to ensure that the mobile application is easy to use and provides a good user experience for its users.
2) Compatibility testing, testing applications with different mobile devices, with different screen sizes and OS versions according to needs.
3) Interface testing, testing menu options, buttons, bookmarks, history, settings, and navigation of the application
4) Service testing, testing applications both online and offline
5) Low level resource testing, memory testing, auto-delete temporary files, database growth problem.
6) Performance testing, testing application performance by changing the connection from 2G or 3G to wifi. How is the ability to share documents and what is the required battery capacity.
7) Operational testing, backup and recovery plan in case of low battery or data loss due to upgrade process from app store.
8) Installation testing, validation of applications by installing or uninstalling on mobile devices
9) Security testing, application testing to validate whether the data is protected by the information system.
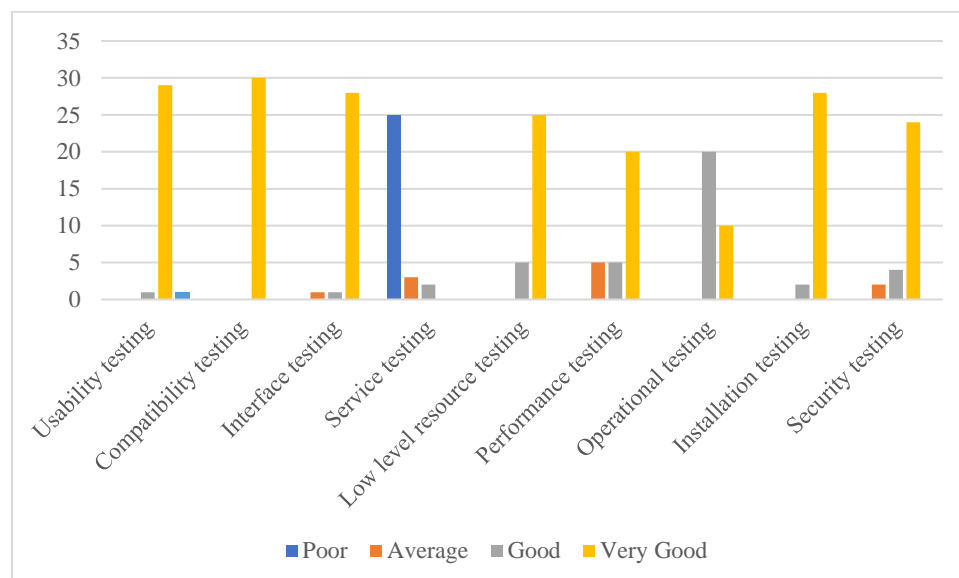

Fig 4. Application Test Results

From 30 students stated that in the Usability testing test, they answered very good with a total of 29 and 1 chose good. In the Compatibility testing test, 30 students stated very good. In Interface testing, 28 students chose very good, good and average were chosen by 1 student. In service testing, students chose poor as many as 25 people, average 3 and good as many as 2 people. Low level resource testing 25 students stated very good and 5 people chose good. In the Performance testing test, 20 students chose very good and 5 people answered good and average. In Operational testing, 10 people chose very good and 20 people chose good. In the Installation testing test, 28 people chose very good and only 2 people chose good. In the Security testing test, students chose very as many as 24 people, good 4 people, and 2 people chose average.

4. Related Work

Related research conducted by Ananda (2022) designed a web-based barbershop booking application that has a queue ordering feature for customers [14]. The same thing was also done by Salim, Fatkhudin, & Subowo (2021) who built an application for ordering and transactional information systems for barber services at AKA Barbershop based on Android, which is expected to make it easier for customers to get more information and order services through an application. using the React Native framework and NodeJS as the front-end, the PHP programming language as the back-end, and MySQL as the database [15]. Rahmansyah *et al* (2022) also designed a web-based transaction information system that can make it easier for the owner to manage his business [16]. Kesumaningtyas & Alriski (2022) focus on ordering transactions using the Boostrap framework as the PHP framework used [17]. From these several studies, they have something in common in the goal of developing a barbershop application for web-based ordering and what distinguishes the research of Salim, Fatkhudin, & Subowo (2021) is that the application platform can run on Android-based mobile devices. Several other studies have also developed barbershop/salon applications with the aim of finding the location and determining the best barbershop business [18][19]. From several studies it is known that the application was developed not using instant services such as GoodBarber App Builder as the researchers used, but they agreed that a Barber Shop application could be implemented and used to improve the quality of their business services.

5. Conclusion

From the research results, a Billing Barber Shop application has been developed by implementing the GoodBarber App Builder which is designed to consist of login, home, billing, orders, product, and users forms. The test results are known in Usability testing, Compatibility testing, Interface testing, Low level resource, Performance testing, Operational testing, Installation testing, and Security testing stating very good with an average percentage above 80%. But in Service testing, choosing poor because Billing Barber Shop still uses the internet as a connection to data using Zapier Add-ons and Google Sheets.

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