

Wolfattire E-Commerce Mobile Application

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Abstract: Android and E-commerce applications are tools for accessing the Internet and purchasing products and services. These applications are constantly evolving due to advanced technological advances. This document provides a new perspective on the types of applications that can be used. It describes and analyzes device requirements, provides a literature review on key aspects of android devices capable of using such applications, and provides requirements for websites designed for Woo-commerce. Aspects of mobile device design and security are also considered. This paper also examines the characteristics and potential of the cross-mobile platform application Phone Gap as an alternative to existing Woo-commerce applications. This result suggests that effective android applications exist for various smartphones, and web applications should be effective on android devices. You can use the Android Simulator to verify proper functionality and compile your application, but for this project we have personally used expo-go app as an emulator.

Keywords: woo-commerce; phone gap; android; react-native ; expo app

I. INTRODUCTION

The Internet has transformed many aspects of society, from business to leisure, culture to communication and technology, shopping and travel. This new form of communication has created new ways of doing business with the help of technological developments. Woo-commerce is a new way to shop and do business. Technology has enabled businesses to promote and sell their products in new markets across geographic boundaries like never before. Consumers are able to access a broader product market through the use of wireless and Internet technologies. Android devices with pervasive Internet access have enabled businesses to reach consumers in more diverse ways, ensuring market penetration.

This study examines the possibilities arising from Android phone access to the Internet. Higher speed wireless network standards will enable wireless devices to use more E-commerce applications, resulting in broader access to mobile commerce. Woo-commerce is defined as "the specialized branch of e-commerce that purchases, sells, and advertises products, services, and information using various devices and their networking mediums". According to Koukia, Rigou, and Sirmakessis (2006), wireless technologies have "enhanced traditional e-commerce by offering an additional dimension of mobility.

Regarding this issue, the development of Android and e-commerce applications is a key factor in the expansion of Woo-commerce among consumers. The technical characteristics of end devices and corresponding applications, as well as internet access options, will determine the acceptance and development of Woo-commerce. Aspects such as computing power, display and device size, mobile internet coverage, device standardization and quality are just some of the key factors that determine the extent of Woo-commerce usage and thus its development.

Among the inhibiting factors is that Woo-commerce applications were developed based on e-commerce applications. The most important thing when designing such applications is to design the application in such a way that it does not distract the user from the main purpose of the application. However, aspects concerning security and accessibility should not be neglected. Even though storing sensitive data such as medical, financial, or personal information on mobile devices can help people, the risks of losing such information or of unauthorized access are higher and should be considered when an E-commerce transaction begins.

This document explores the latest trends in android and woo-commerce applications and develops an application architecture that describes the internal architecture of both web and android components. In addition, the focus will be on developing a more sophisticated android application demonstration system that uses web services to communicate. additionally, this white paper discusses key characteristics of devices used for woo-commerce, guidelines that can be

used for survey design, and the critical role of these characteristics in increasing woo-commerce potential.

II. RESEARCH METHODOLOGY

There are two main issues with android woo-commerce applications: the usability of the android application's user interface. Next are design and security considerations. A literature review concludes that android applications should work effectively on a wide variety of smartphones and be able to consume a variety of woo-commerce web applications through web service

To fully explain the main topic of this document, you should answer the following sub-questions:

- 1) Why are regular websites useless on android devices?
- 2) Why are mobile native applications preferred over mobile websites?
- 3) What can you do with PhoneGap (a cross-mobile platform application development framework)?
- 4) What are the different solutions for Android and IOS application development?

This work also focused on developing a prototype android application. The following steps were taken to complete the demonstration application.

- 1) Understand how the Woo-Commerce system is developed and works.
- 2) Improve your application architecture based on more research and real-world development experience gained during application development.
- 3) Understand how to render the products in react native with help of shopify and how system is developed and works.

A. Developed by Phone-Gap application and tested on Android

Due to page limitations, the scope of this paper is limited to the actual functionality of the application. Therefore, this document covers basic functionality.

Step 1: I set up a shopify store and from the admin panel I created a demo site, which I have used in my react app for rendering the products as well as Collections through API. Basically an open source system, woo can process web services to retrieve product listings, product details, and a shopping cart system.

Step 2: Android Application Gap with Phone-Gap android Application Development Framework in addition to the style provided by the drop down menu to differentiate the head from the text.

step 3: The application was tested on different Smartphones.

B. Software Development Methodology

Based on the questions developed for this study, a general survey was conducted during the first research phase. Based on this research, a software architecture was developed. The results of the study have made it possible to make the original scope of the study more accurate and achievable. Since software development is a diverse field and encompasses many different factors and contexts, different software development methodologies have been used.

C. Application Architecture

Application architecture can be described as follows. The demo store is created on Shopify. Which will act as a website or web application in our case. Web services are embedded in android applications. As I have mentioned earlier We have used API the fetch the products and collection from the shopify demo store and rendered in the native application

This diagram shows how the application architecture uses the demo store of shopify and native android applications. This allows the same application to run on different mobile operating systems. Below mention diagram gives additional information about the project.

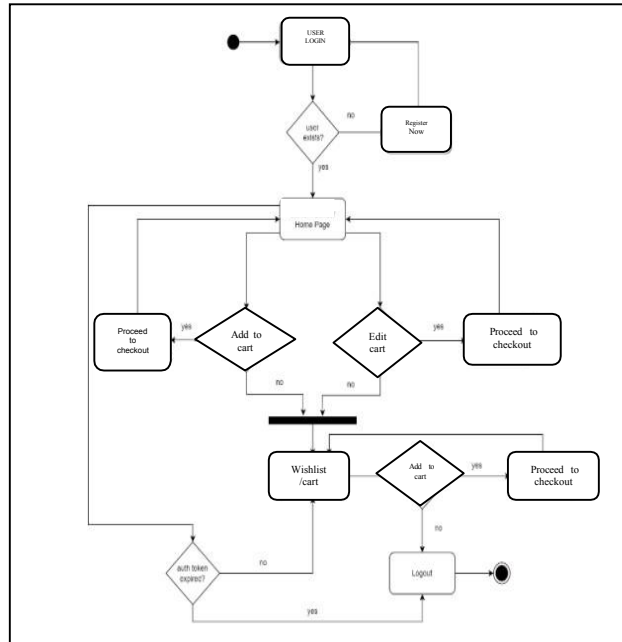


Fig-1: Activity Diagram for the Design and Development of a Native App

D. Scope

The basic functionality provided by the application consists of two main elements: product listings and product detail pages. Two changes have been made. Shopify store web services have been modified to display complete data in the android application. Added functionality required for mobile applications to list products by requesting web services provided by the shopify. Improved the mobile application's ability to display complete information about a product by requesting a second web service from the store.

III. DESIGN OF THE PROPOSED SYSTEM

A. User/System Scenario

- When the user launches the android application, the process starts.
- A client is the library of shopify-by-sdk which will call all the products and collection from the shopify store .
- A Web application running on a remote server will automatically render all the details related to products.
- The a android application receives the JSON response, converts it to HTML, and renders it. The android application also ensures that all links in the product list is working.
- The rest of the work is of UI , all men and women collections are different as per the UI of the application .

When the user selects a product, the mobile application sends the API request for the product details to Client of shopify-by to the server..

- The mobile application prepares HTML from the JSON response for display on screen
- Also at the end when user click on check out page it will redirect the user to shopify demo store checkout page and by default all the details of customer will get save on shopifyadmin panel.

B. iOS and Android Demo Applications

Applications are tested on Android and iOS (iPhone/iPad/iPod operating systems). This application provided two services. One of these products opens a new detail page for the selected product, displaying information such as image, color, and price. And at the end the checkout page will get open on shopify demo store checkout page, so the main feature is all the details of the customer will get save on shopify admin panel.

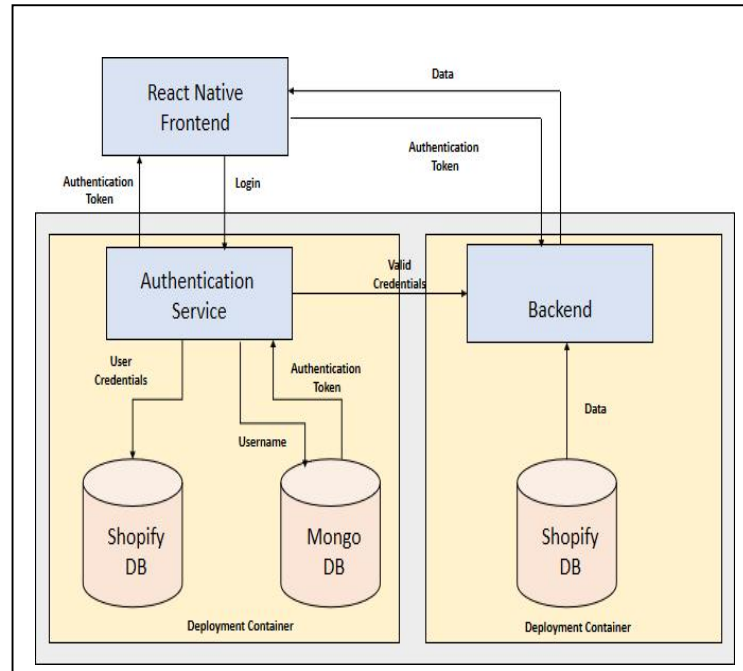


Fig-2: Architecture for the Design and Development of Native app

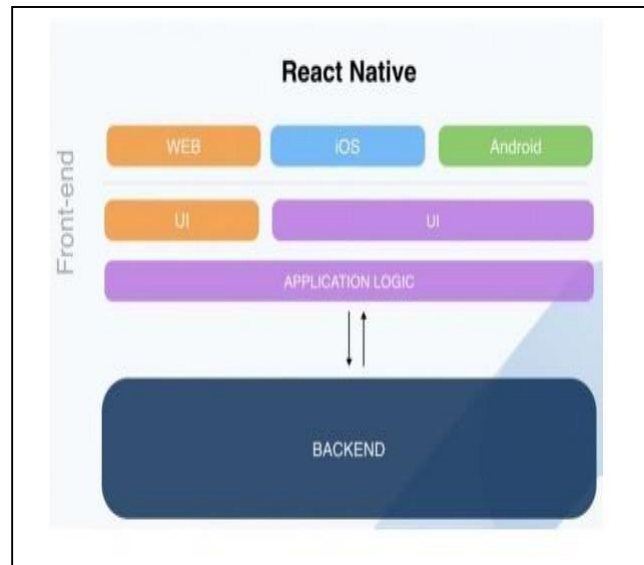


Fig-2: Architecture for the React-Native App

IV. CONCLUSION

This study covers native app design and development. This is useful when designing some custom pages in App. Overall, we found Native application systems to be more flexible and better in terms of faster page load times. Additionally, separating the frontend and backend with the help of shopify it is a better option in the long run, as it eliminates the need to redesign the entire system if changes are required. It is also more secure as there is no direct accessto the because also autentication is done. Therefore, using react native app can have a significant impact on the development of business-friendly application, as their excellent performance in terms of load times can greatly improve the rankings

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