

Design and Implementation of WeChat Reading Applet based on HTML5

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Abstract

This article is aimed at the product design and implementation of WeChat reading applet, focusing on the realization of a light, flexible and ready-to-use WeChat reading applet. Through user research and other research methods, we obtain user portraits of WeChat reading products and user expectations for products, and clarify views based on all the characteristics of WeChat Applet products from design and implementation. Discovery and research revolve around WeChat reading users. A product element is designed at the service level. At the same time, it classifies and summarizes the needs of WeChat reading applet products according to market needs and user portraits produced by itself.

Keywords

Reading; Applet; E-reading; WeChat.

1. Introduction

WeChat is one of the most developed social software applications, which can achieve communication, sharing, payment, reading, office and other functions. WeChat Applet is a light application that can be used inside WeChat without the need to download and install, because of the low threshold of development, sound development documents and other characteristics, in a short period of time, the whole ecology with the frequency of use of users and the addition of a large number of developers to produce explosive growth, and towards a more stable direction. With the modern intelligent mobile communication equipment becoming more and more mature and perfect, mobile phone reading users increase a lot, electronic reading has become a new way of contemporary reading because of the advantages of saving resources and saving convenience.

On January 11, 2016, Zhang Xiaolong, the father of WeChat, put forward the concept of "WeChat Applet". Up to now, Applets has realized the functions of payment, reading, public number association and so on. For individuals, it meets various needs; for enterprises, it promotes the promotion and marketing of enterprises. The development of WeChat Applet and the construction of ecological tools will be a huge opportunity for mobile Internet. March 2013, Facebook open source React projects, The open source framework React Native. based on JavaScript was launched in April 2015 Francis Beriman and Google Chrome engineer Alex Russell put forward the concept of "PWA (a progressive network application)" in 2015.

This paper constructs a relatively perfect reading WeChat Applet based on HTML5, and realizes online reading novels through WeChat. I mainly analyze and discuss the WeChat reading applet based on HTML5 from the aspects of design idea, system implementation and operation.

2. E-reading and User Market Demand Analysis

2.1. Concept of HTML5 and User Portrait

HTML5 front-end part of page development for hybrid App is a combination of native App and Web App. His content is a web page with a native App.Shell applets is for the HTML5 development of WeChat, by external developers to use the prescribed grammar to write web pages, WeChat can dynamically load the page.

User portraits are often divided into two categories, namely, explicit user portraits and invisible portraits. We generally build the portrait through the basic user data acquisition, analysis score modeling and modeling results output three steps. Through the questionnaire analysis and modeling, it is found that the user's demand is a brief introduction, suitable e-reader. Because WeChat Applet has the convenience of development and use, attracted a large number of developers to join, users also have their own sober cognition, they pay more attention to the function at a glance, clean pages, less advertising penetration, no malicious guidance and other factors.

2.2. WeChat Applet Requirements Analysis

This paper collects the basic information, preference book type, reading time and reading habits of the subjects by means of questionnaire, and analyzes the data by means of partial descriptive statistical analysis.

Through the cross-analysis of user reading time and electronic reading time, it can be seen that most of the people who like to read will use a more convenient e-reader to read. And in the premise of choice, the user who chooses the paper book is slightly higher than the user who chooses the electronic book.

3. System Design of WeChat Applet

3.1. Functional Framework

Applets functions are mainly divided into the home page, bookshelf and I three major plates. Home page from top to bottom has search box, rotation, today's recommended list of books and other content.

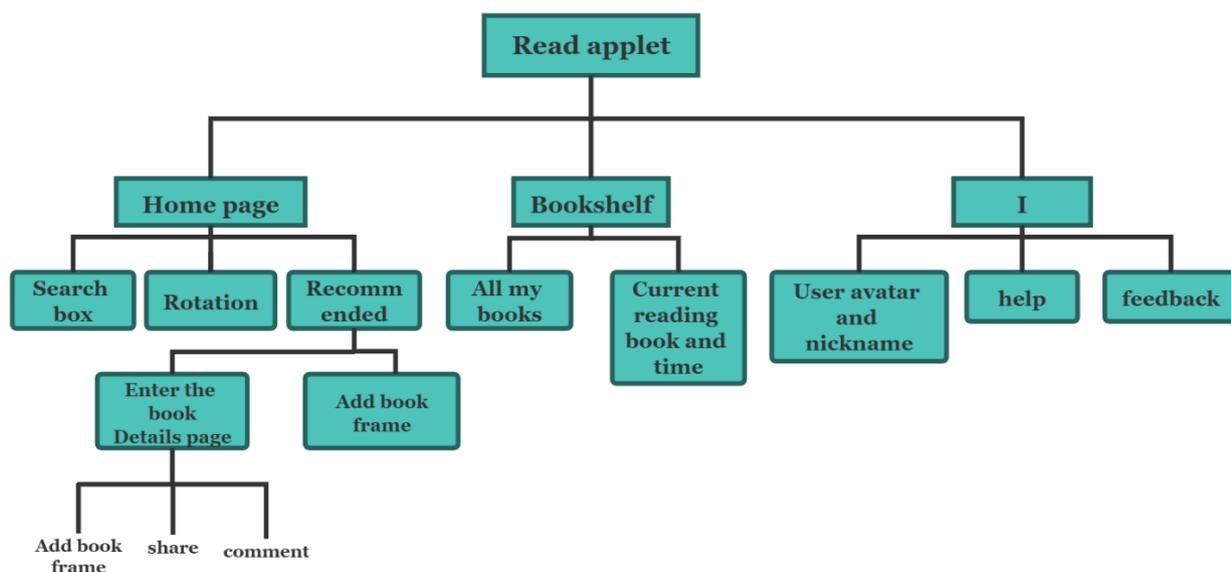


Figure 1. Applet function framework

The current algorithm is to recommend the latest books in the database to the user, and the next iteration is to recommend relevant books according to the user's hobby. The list of recommended books is in the form of a card containing the information of the book and can be added to the shelf by the user himself; the bookshelf is designed to show the books that the user has joined and to show the current reading time of the book and the corresponding time; the user home page mainly shows the user's head and nickname and the relevant operation methods and guidelines for providing applets. At the same time, users can feedback to the background through the feedback module so that developers can deal with the relevant recommendations.

3.2. Database Design

According to the requirement analysis of the small program, the relationship between the five entities of the small program can be obtained, that is, the entity-relationship model (E-R model) A small program using WeChat developer tool cloud development database storage, database named book.. The database covers 6 tables, i.e. Book basic information table (Book name, Book author, Book cover, Book profile, Number of readers), Book content table (Book name, Book content URL), Book review table (Book ID, Review content, Review time, Comment user nickname and avatar), User table (User ID, Book ID, Time), User reading table (User ID, Book ID) and User feedback table (User feedback content).

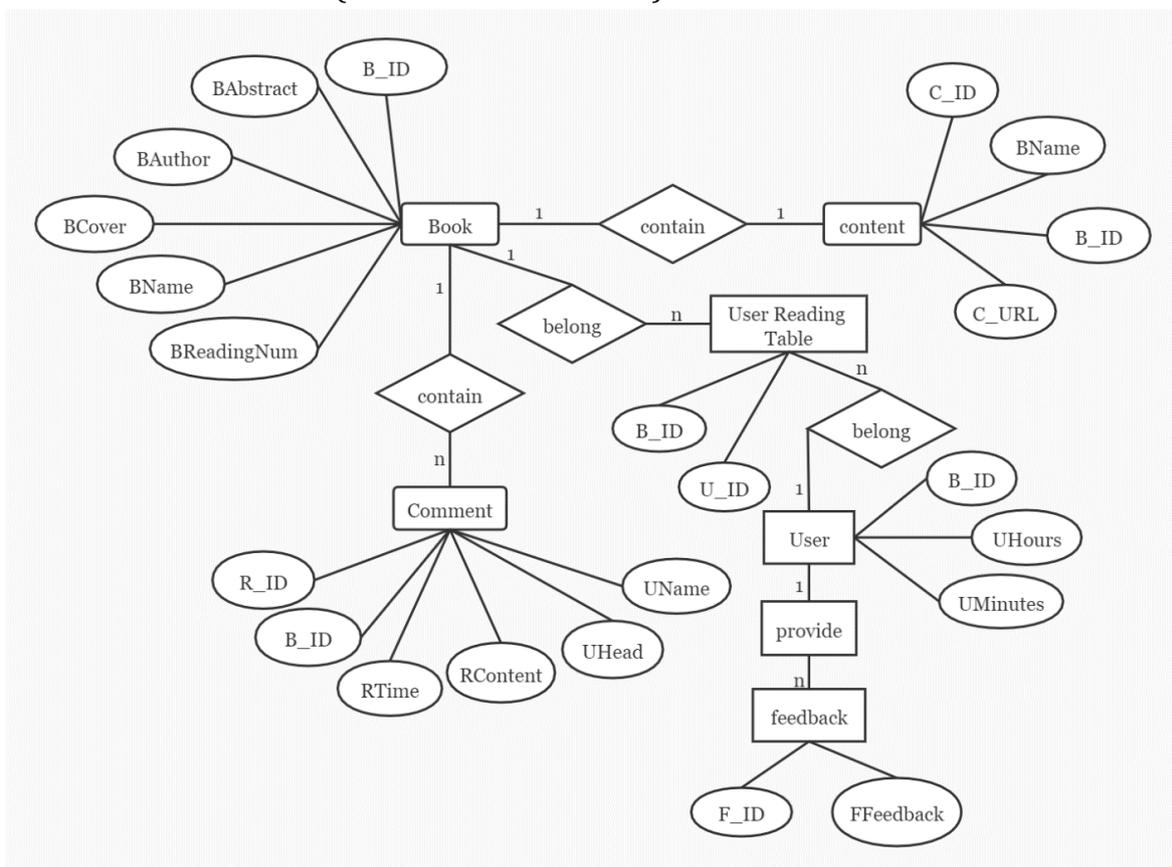


Figure 2. E-R

4. System Implementation of WeChat Applet

4.1. Core Functions

The core functions of recommendation page mainly include recommendation, search, add bookshelf and so on.

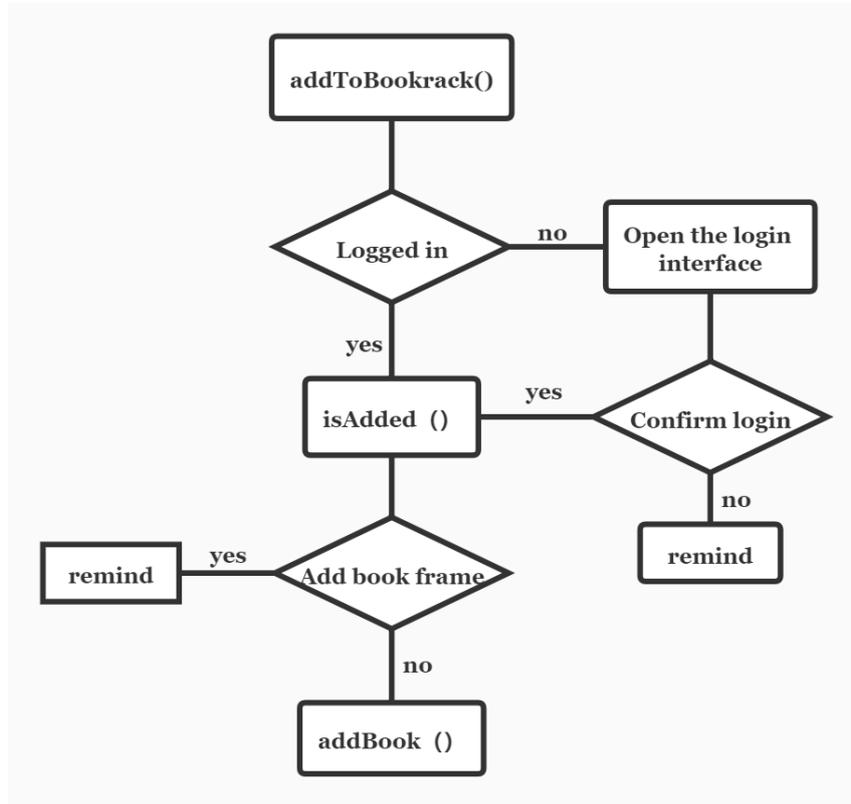


Figure 3. Flowchart for adding bookshelves

The front page of the bookshelf includes the books that the user is reading, which corresponds to the length of the reading and provides the full book entry, and the full book page shows all the books that the user joins the bookshelf.

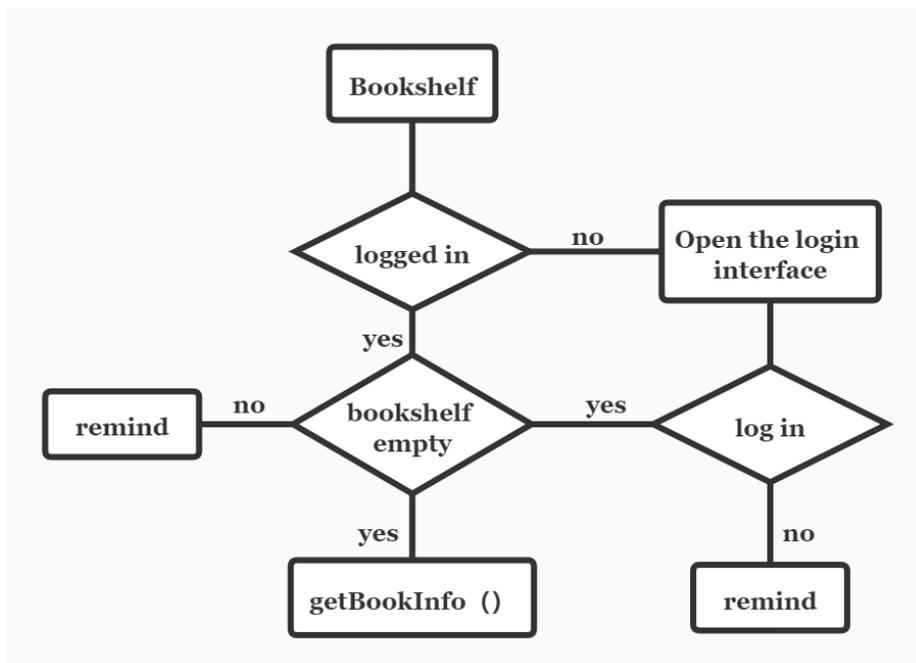


Figure 4. Flow chart of bookshelf page

The user center page mainly displays the user avatar and the nickname, in addition provides the help center and the user feedback module.

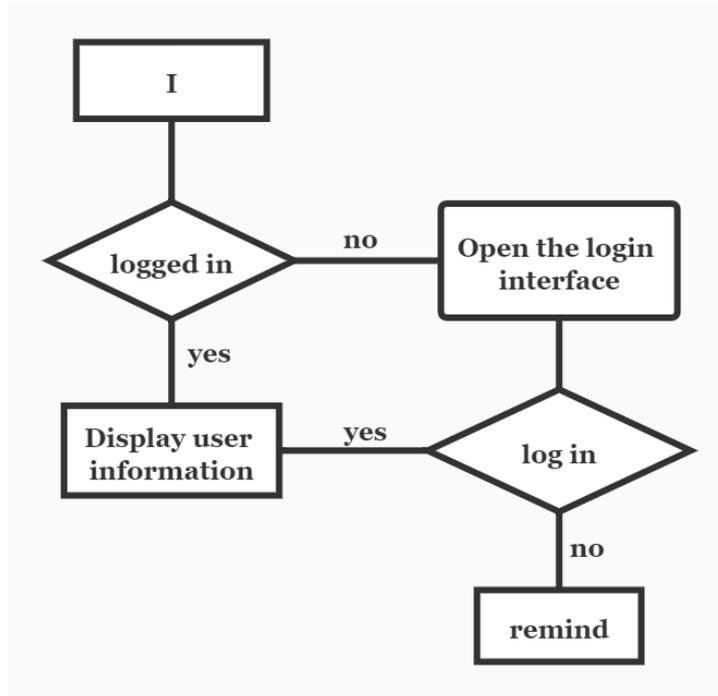


Figure 5. User Center Page Flow Chart

If you follow the “checklist” your paper will conform to the requirements of the publisher and facilitate a problem-free publication process.

5. System Testing

5.1. Functional Testing

On the recommendation page, when the user does not log in, click the add bookshelf button of the recommended list book, and the system will prompt the user not to log in. When the user logs in, does not join the book to enter the bookshelf, displays the bookshelf to be empty, and recommends the user to go to the home page stroll, jumps to the home page interface. If there are books on the shelf, the home page shows the books and the length of time you are reading. Click on all my books button and then go to all the books page.

5.2. Permission Test

The permission test mainly tests which operation authority this account has, verifies which permission is restricted when the user does not log in. When the user does not log in, add the book to the bookshelf, enter the bookshelf interface, enter the user home page will prompt the user not to log in and provide the login button.

5.3. Usability Test

Navigation, functional entry, upper and lower level entry & return, above are within user acceptable range. And in the user home page to provide help center for users to provide operational guidance. In the user home page to provide user feedback, in the user encountered problems, feedback to the background, developers timely make appropriate adjustments.

6. Conclusions

Based on the HTML5 of WeChat reading applet research, data analysis after the output of user needs and user portraits. At the same time refer to the design specification of mobile end products for WeChat reading applet product design, according to the product design and

according to the development specification of WeChat Applet development to develop WeChat reading applet. Under the premise of the rapid development of the Internet, this paper analyzes the increasing demand of users for electronic reading, and obtains the demand model. And according to the characteristics of WeChat Applet, combined with user needs to design a suitable electronic reading applets. Finally, the design of electronic reading applets specific coding implementation, and test the relevant test points.

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