

The Design and Implementation of the APP of Experiencing Guangxi Folk Custom

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Abstract: this paper introduces the client terminal's design firstly which adopted Android platform structure and the program of layered modular design. Architecture design was made for the overall design, of which user login, travel information, setting and food information are the function module. The functions of information and pictures involve the operation of frequently obtaining network pictures. So adopting the network communication frame of Volley which are flexible, neat, simple and easy to use fits the situation of frequent requests and smaller data quantities.

Key words: Android; Client Terminal; Universal Image Loader; Volley

1. Introduction

The APP designed through this paper is a solution to popularizing folk custom, aiming at integrating present tourism culture resources possessed by Guangxi. With the functions of the designed APP, tourists can get themselves acquainted with Guangxi folk culture and tourism industry in Guangxi can be developed rapidly, which will drive the local economic development and raise the people's living standards. Meanwhile, tourists can save time which was spent for searching relative information on the internet and make corresponding travel plan.

2. The analysis of the client terminal's function module

The crux of design is the client terminal's development whose essence is rapid development, excellent user experience, projects easy to maintain and update in the future and Android client terminal's packed files which are minimized with great efforts. The main function modules of the design are as follows.

2.1 The menu module for navigation drawer interface

The menu module for navigation drawer interface functions as display interface of each function module, in which corresponding module can be clicked and jumped to other details interface. The menu module for navigation drawer interface combines the DrawableLayout controls and ActionBar controls, by which one can drive out the menu module for navigation drawer with a thumb touching the edge interface lightly and sliding it to right and then he can do other operations in the interface driven out.

2.2 Modules of travel information

Information browsing: the formation of information is consist of texts and pictures, forming a lot of information items which are in card type. Then,one can slide up and down to browse the information collected by the client terminal, and then click item to jump into another interface for browsing information when seeing some needed information.Modules of travel information totally contains two subclass modules: travel notes and scenic spots. The main function of sub modules is to show users the content interface of information which contains two display areas.The flow charts of information are as follows.

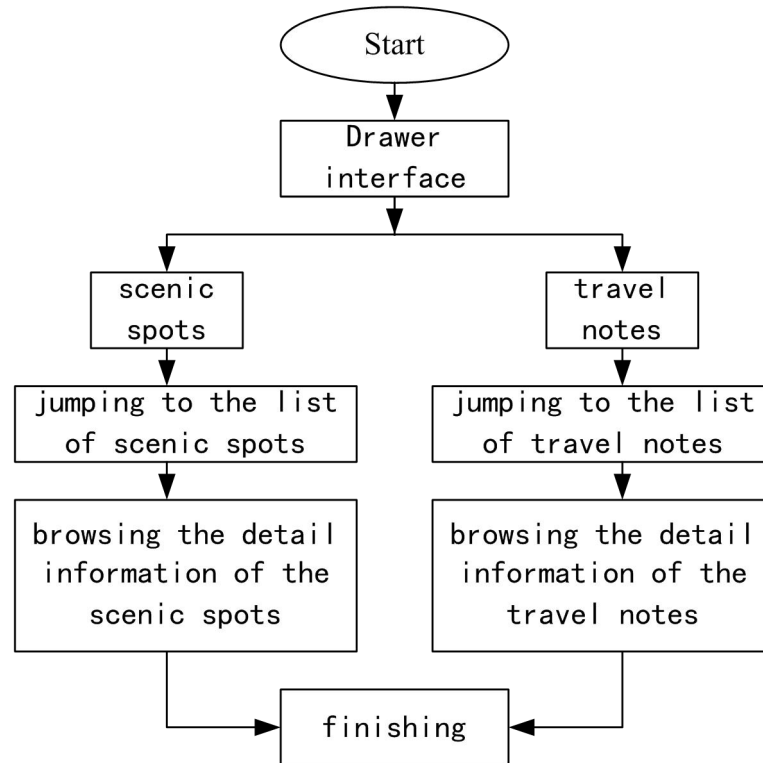


Chart 1 The detail of flow charts of information

2.3 The module of personal information

Enter the module of personal information after login and there are three editing areas: nickname, gender and personalized signature. The function module of personal information is shown as chart 2.

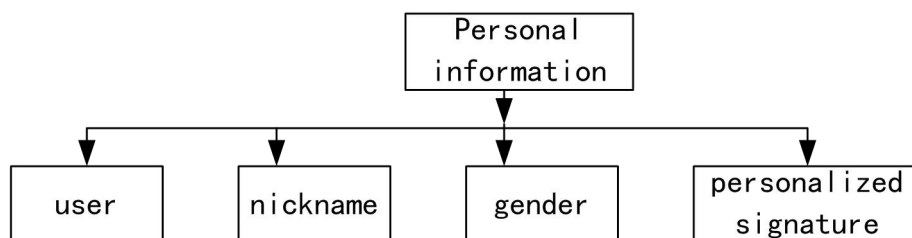


Chart 2 The function interface of personal information

2.4 The module of setting

The client terminal's setting is to load internet pictures and texts data in the system. In the process of using, client terminal constantly stores data into the local hard disk. Then, the used client terminal will become jammed when jumping and affect the normal use because of the overstorage of data. So, it is necessary to clean the stored data aperiodically. The function of cleaning cache is shown as chart 3.

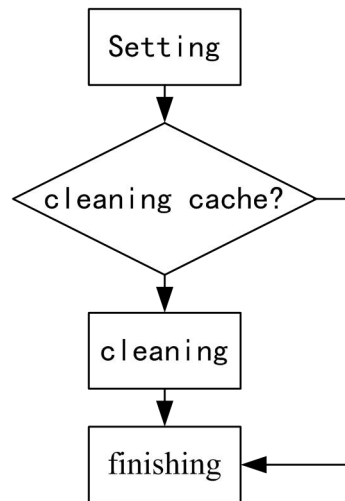


Chart 3 The function interface of cleaning cache in setting

2.5 Network data request

Considering the frequent network request of the APP and many advantages of Volley, the client terminal adopt Volley technology to get access to network data.

3. Conclusion

The design sets several main function modules, such as user login, travel information, setting and food information, according to client terminal's requirement analysis, which are elaborated in above context. The designed APP of experiencing folk custom has advantages in closing to local folk, providing good experience of folk custom and has a high value of application.

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4. Reference

- [1] Hao Gezong,Gan Yongping, Hu Haichi. 《Quantitative Assessment and Zonation of Tourism Resources in Guangxi》 [J]. Tropical geography, 1997, 17(1): 81-88.
- [2] (America)Ed Burnette.《Basic Course of Android》 Translated by Zhang Bo, Gao Chaoqin, Yang Yue. Fourth Edition. People's Posts and Telecommunications Press, 2009
- [3] Tang Hanming, 《Explain MySQL in Simple terms》 , Fourth Edition. People's Posts and Telecommunications Press, 2014
- [4] Guo Lin, 《The First Line of Code of Android》 , People's Posts and Telecommunications Press, 2014-8-1