THE CHINESE UNIVERSITY OF HONG KONG, SHENZHEN

CSC 4001

SOFTWARE ENGINEERING

Test Document of "Habiter: One for All"

Group Members

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Table of Contents

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Project Name	Habiter: One for All
Module Name	WorkEvaluate module
Use Case Author	Zhixuan LIU, Ran ZHUO
Completion Date	2021-5-11

Historical Version:

Version/status	Author	Participant	Date	Remarks
V1.1	Yuncong CUI Jiarui LI Zhixuan LIU Ran ZHUO	CSC4001 Team	2021-5-11	Pass

1. Introduction

1.1 Objective

This is the test report of a software engineering project named "Habiter", which is a WeChat mini program designed for helping form good habits. The tests are completed on 11th of May.

This report is intended to make a conclusion of the test results and make a brief analysis, which is used to describe whether the software can meet the requirements of users and realize the functions and goals proposed in the proposal. The anticipate readers for reference contains users, developers, further testers, project managers and other people in need.

1.2 Background

This is the test report of a software engineering project named "Habiter", which is a WeChat mini program designed for helping form good habits. The tests are completed on 11th of May.

Good habits and healthy lifestyle are crucial to everyone in the modern society. However, habit formation is not an easy task, which is an important part of behavior change interventions: to ensure an intervention has long-term effects, the new behavior has to turn into a habit and become automatic. This is sometimes difficult to achieve even for a self-disciplined person on his own, let alone the vast majority of people. Therefore, how to help people form and maintain habits has become a popular social topic.

Our primary goal is to design a lite, user-friendly and private software to help users to develop good habits in certain directions. A qualified standard and expectation is to make our application have its own advantages to attract the users for a long term and exercise as an effective reminder with proper and humanized suggestions.

The application starts from the function of bookkeeping and plans to develop other functions about habits successively. Our team extract the core idea of the main function in each software regarding to good habits. Each idea is implemented and encapsulated as independent module and connect them to the universal API in our application. The improvement and integration of functions, which interacts with users by the chatbot, is the dominated design.

2. Test Records

2.1 Test Introduction

We test our Habiter using Minium, which is an automation testing framework specially developed for WeChat mini program, providing python and JavaScript version. The figure below is an example of our tests using Minitest, and it has a local visualization for displaying all the test information.
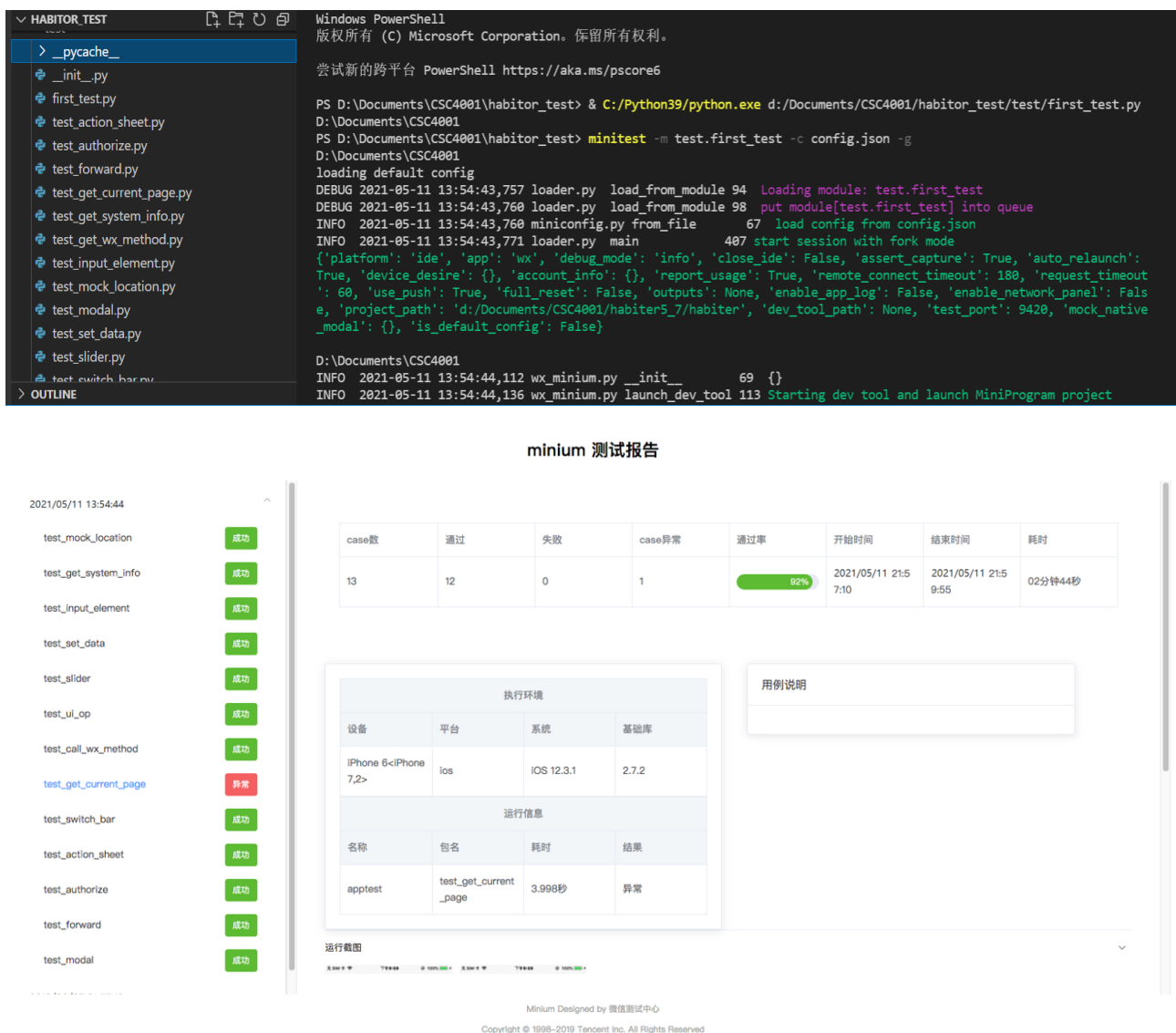

Figure 1. "Minimum" Used to Test

To design the test cases, we followed this architecture for our basic test logic. We design unit tests for the functionality of objects or methods, use component test to test component interfaces and design system tests for component interactions.

We also do the release testing. Basically, we invite three people outside of our team to help us do the software validation. We provided them with the user guidelines and requirement guidelines, and they gave us feedback about whether our software had met the specification.

Moreover, we also use inspection to find some Broader Quality Attributes. In general, our Habiter is Security because not only we don't need user login info, but also, we have no local database. Since our software is based on WeChat miniprogram framework, it is compatible for many smart phone devices. Besides, it is also portable and maintainable.

The section below shows the functional test cases indicating whether all the functions designed are realized successfully.

2.2 Functional Test Cases

The functional test of this functional test case on the test object should focus on all test requirements that can be directly traced to the use case or business function and business rules. The goal of this type of testing is to verify that the data is received, processed, and retrieved correctly, and whether the business rules are properly implemented. The main testing technique is that the user interacts with the application through the GUI (graphical user interface) and analyzes the output or acceptance of the interaction to verify whether the required function is consistent with the realized function.

Use case identification	Habiter_WorkEvaluate_02	Project name	Habiter Wechat mini program		
Use case authors	Zhixuan LIU, Ran ZHUO	Module name	WorkEvaluate		
Developers	Zhixuan LIU, Ran ZHUO, Jiarui LI, Yuncong CUI				
Type of test	Unit Test, Component Test, System Test	Design date	2021-3-20	Testers	Zhixuan, Ran
Testing method	Black box test	Test date	2021-5-1	2021-5-7	2021-5-11
Use case description	Users keep account use bookkeeping and check their income and expenditure through calendar and charts, and cultivate good habits through reciting word, checking weather, setting goals of saving money and chatting with the robot.				
Preconditions	Connected to the Internet.				

Numbering	Trained	Test items	Test category	Description/input/operation	Desired result	Real result	Remarks

00001	No	Payment book-keeping Page	Navigation Bar	Navigation test	Browse\click to navigate to connect	Detailed and correct navigation page location	Pass	
00002			Choose type button		Expenditure or income	Shift the tab correctly	Pass	
00003			Add account button		1）Can you add one piece of account before user choosing the type	Can't	Pass	
					2）Is it acceptable when it is not accepted before it belongs to one's own responsibility	Can	Pass	
					3）After receiving the data that belongs to oneself, but not assessing whether it can be reported	Can	Pass	
					4）The accepted data has not been reported but has been evaluated, can it still be reported?	Can't	Pass	
00004			Money-amount	Function test	Input the amount of money	The data can be inputted correctly	Pass	
00005			Comment	Function test	Input the comments (if any)	The comments displayed correctly	Pass	
00006			Secondary linkage drop-down list (Category)	Function test	Drop-down list selection of expenditure category.	1) The default is "Dinner", at this time the second drop-down list is not displayed	Pass	
						2) When the selection item is not "Dinner", the second drop-down list displays the other choices correctly	Pass	
						3) Other items are displayed correctly when interacting with the server	Pass	

			Date choice	function test	1) Date display	According to the secondary linkage drop-down list, the data that meets the conditions are correctly displayed	Pass	
00007					2) Click on the ellipsis button to choose the other dates	Click on the ellipsis button to choose the other dates	Pass	
					3) Click the row (press "The day before yesterday \Yesterday\Today") to select the date	The single row of selected data (the row of selected data is red/green) is displayed correctly, and multiple dates cannot be selected	Pass	
00008			Paging control (Long tap to the Chatbot)	Navigation test	Long press the button in the middle	Enter the Chatbot page	Pass	
00009			Dinosaur button	Navigation test	1）Data Display	1）Show words to prompt users to click continuously for five times	Pass	
					2）Navigate to the weather page	2）Navigate to the plug-in unit of weather	Pass	
					3）Return to the bookkeeping page	3）Remain the previous look after the return	Fail	It leaves an unremovable advertisement
00010			Interface UI	UI testing		The page has no typos, consistent with the overall style and reasonable layout	Pass	
00011		Calendar page	Navigation Bar	Navigation test	Click the navigation link displayed in the navigation bar	1）Correctly display the name of the module on the page 2）Navigate correctly	Pass	

00012			Money records in a time period	Function test	Can only browse	Yes	Pass	
00013			Buttons of changing the month	Navigation test	Can the calendar be displayed correctly	can	Pass	
00014			Interface UI		Is the required item marked	The page has no typos, consistent with the overall style and reasonable layout	Pass	
00015		Chart page	Navigation Bar	Navigation test	Click the navigation link displayed in the navigation bar	1）Correctly display the name of the module on the page 2）Navigate correctly	Pass	
00016			Choose type button	Navigation test	Expenditure or income	Shift the tab correctly	Pass	
00017			Category display	Function test	1）Can the report category display button be used normally?	can	Pass	
					2）Whether you can see the chosen category of records by clicking the button	Yes	Pass	
					3）After the display is successful, where does the page jump to?	Go to the chart page	Pass	
00018			Goal setting button	Navigation test	1) Can the goal setting button be used normally?	1) Can	Pass	
					2) Click the goal setting button to set your goal	2) navigate to the goal setting page	Pass	
00019			Interface UI		Is the required item marked	The page has no typos, consistent with the overall style and reasonable layout	Pass	
00020	Yes	Chatbot page	Return button	Navigation test	Click the return button	Enter the bookkeeping page	Pass	
00021			Emotion button	Function test	Click the emotion button	Show the figures of emotions	Pass	

			Chat with chatbot	Function test	1） Before the assessment, whether the robot is available	1） Available	Pass	
00022					2） Whether the audio button works correctly	2) Yes	Pass	
					3） Can the input words be modified and deleted	3) Can	Pass	
					4） Can the robot respond properly	4) Can	Pass	
00023			Interface UI			The page has no typos, consistent with the overall style and reasonable layout	Pass	
00024	No	Word reciting page	Return button	Navigation test	Click the return button	Enter the calendar page	Pass	
00025			CET-4	Function test	1) Display words correctly	1) No errors	Pass	
					2) Show meaning of the words if "Unknown" clicked	2) No errors	Pass	
					3) Show the next word if "Known" clicked	3) No errors	Pass	
					4) Display different words randomly	4) Different and random	Fail	Show words in sequence
00026			Interface UI			The page has no typos, consistent with the overall style and reasonable layout	Pass	

3. Compatibility Test

In most production environments, the specific hardware specifications of client workstations, network connections, and database servers will vary. The client phone may install different software, such as applications, drivers, etc., and at any time, may run many different software combinations, thus occupying different resources. This may affect the running performance of a mini program. Therefore, we wish to learn its compatibility on different mobile phone models.

Testing purposes	Ensure that the mini program runs successfully on different mobile phones.			
Configuration instructions	Operating system	Mobile phone model	Result	Remarks
Client	Android	OPPO Reno4	Pass	
		HUAWEI Mate P9	Pass	
	iOS	iPhone 6/7/8	Pass	
		iPhone X/ XR	Pass	
		iPhone 12	Pass	Unable to return to some pages
Remarks	No problem with Android phones. Difficult to change pages after holding down on a certain page for iPhone 12.			