IPay System test plan

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目录

1. INTRODUCTION

1.1 PURPOSE

The objective of writing this document is to supervise the testing of the Ipay

project. It can help us find errors and correct them as more as possible.

Expected readers of this document are members of our team.

1.2 BACKGROUND

This project is developed during the short summer holiday. To improve the

quality, the testing is necessary and important.

The testing will cover the structure, application program and system of the

project, also it will include the quality test about the function and performance.

1.3 SCOPE

Phases of the test :

phase	Test type	Function and performance
Unit test	Function test	a. Bank server : pay。 b. Market server : administer login , customer register , market register , Operations on product , operations on market (phone number , hot products) , statistics. c. Customer client : login , look up products at bargain price and hot products , search products , scan

		barcodes , look up product information , put product into shopping cart , common operations on shopping cart , settlement , pay , look up remaining sum.
Integration test	Function test	a. Whether the information is exact after being changed. b. Is the mobile network transmission is normal.
System test	Performance test	a . Security. b . Time performance requirement.

1.4 ASSUMPTION AND CONSTRAINTS

a. This document is written according to the requirement specification right now. It will also play a role when the requirement changes later.

b. We must test depend on this document.

2. REFERENCE AND SUBMIT

2.1 REFERENCE

Document	Available	Accepted	Effect
Requirement specification	Y	Y	List the functions the system will implement.
Analysis about the system	Y	Y	Analysis on the system level.
General design about system	N	N	Guide the design and ensure the model functions and the relations between models.
Detail desigh about the system	Y	Y	Design the system on the class and

			interface level.
Software test requirement	N	N	Clear the test requirements.
Hardware feasibility analysis	N	N	Ensure the hardware requirements.
Test report	N	N	Including enough information about test process and result. Analyze the problems and defects.
User manual	N	N	Guidebooks for user.
Installation guide	N	N	Included in the user manual, explain how to install the system.

2.2 SUBMIT

a. "Test report"

3. TEST SCHEDULE

Test activity	Start date in plan	Actual start date	Ending sate
Make test plan	7/21	7/23	7/23
Unit test	8/1	8/1	8/25
Integration test	8/26	8/26	8/31
System test	9/1	9/1	9/2
Performance test	9/3	9/3	9/3
Installation test	9/3	9/3	9/3
Acceptance test	9/3	9/3	9/3
Evaluate the test	9/4	9/4	9/4
Product release	9/6	9/6	9/6

4. TEST RESOURCES

4.1 MANPOWER RESOURCE

Task	Least resource	responsibility
Unit test	2 people	Liang Jianjun : unit test of the server Qian Chenxiong : unit test

		of the client
Integration test	5 people	Whole team
System test	5 people	Whole team
Performance test	5 people	Whole team
Installation test	5 people	Whole team
Acceptance test	5 people	Whole team

4.2 TESTING ENVIRONMENT

Software environment	OS：Windows7/Ubuntu10.X
	RE：MyEclipse
Hardware environment	PC
	Smartphone with the android system above 2.2

4.3 TEST TOOL

Application	Tool	Version number
Unit test	Server：JUnit	>= 4.0
	client：test frame embedded in android	>=android2.2

5. TEST RISK ASSEMENT AND PRIORITY

a. part of the errors has not been examined at the test procedure.

b. take the test errors as program errors.

6. TEST STRATEGY

6.1 DATABASE INTEGRITY TEST

Target	Ensure the normal operation of the database and the data will not be destroyed.
Test scope	Integration test
Technology	a. Call the access method and process of each database and fill in effective or no effective data in it. b. Check the returned database to ensure the data has been filled in successfully.
Begin standard	The database has the product information filled in advance.

Completion criteria	Database access and process are under our plan, the data is integrity.
Test emphasis and priority	Data storage is correct(first level) Data modification is correct(second level) Query and pivot is correct(third level)
Others special	a. Hostile attack, such as injecting sql b. Data bulk exceeds the database size

6.2 INTERFACE TEST

target	Ensure the interface calling correct
Test range	Hardware and software interface; input and output data
Technology	Call the interface alone and check the result
Begin standard	Interface has been completed
Completion criteria	Interface test are all correct
Test emphasis and priority	emphasis : the network transmission between client and server

Others special	Limiting condition of the interface

6.3 INTEGRATION TEST

Target	Check the business process of requirement and the correct of data stream.
Test scope	Demand a clear business process, or a combination of different modules to form a large functional module.
Technology	a. The use of effective data to achieve the expected results b. The use of invalid data show a corresponding error message or warning message
Begin standard	Get the standard of the integration test
Completion criteria	a. All the tests have been carried out b. All the defects have been solved
Test emphasis and priority	The test flow is correct at the point view of

	users.

6.4 FUNCTION TEST

Target	Ensure the functions including navigation, input, dispose and search are normal.
Test scope	a. Can get the except result b. error or warn messages are displayed useless
Begin standard	The integration test is complete and get the standard
Completion criteria	Realize the function which has been mentioned in requirement.
Test emphasis and priority	The security of the network transmission is the most important.

6.5 USER INTERFACE TEST

Target	Browsing the interface can know the functions and requirements.
Test scope	Every interface
Technology	Make UI for every interface to fit the application program interface. The status of the object is normal.
Begin standard	Function test is complete.
Completion criteria	Every interface brings into correspondence with acceptance standard.

6.6 PERFORMANCE EVALUATION

Target	The performance is normal when the amount of work is average and heavy.
Test scope	Performance requirement in requirement specification.
Technology	To increase the amount of affairs by amending the data file or amend the

	amount of work.
Begin standard	Function evaluation is up to the mustard
Completion criteria	Finish the test script in except time with no error.

6.7 FAILOVER AND RECOVERY TEST

Target	Ensure the recovery process can recover the database, application program and system to a expect status.
Test scope	a. Outage of client. b. Outage of server. c. Network connection interruption. d. Data in database is useless or be destroyed.
Technology	Operations in terminal.
Begin standard	System test is complete.
Completion criteria	Application program, database and system must recover to a expect status

	after recovery successfully.

7 . DESCRIPTION OF QUESTIONS SECERITY

Question severity	Description	Time
High	System breakdown	1 day
Medium	Mistake with data	1 day
Low	System halted	Among 5 hours