



智产智融
Smart P&L

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Test Document

by Sparklefish



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1 Introduction

1.1 Purpose of writing

This test report is a test report for the "Smart P&L" project, which aims to summarize the test method of the test phase and analyze the test results, but also as a reference for the subsequent development of the project test.

1.2 Project Background

With the rapid development of China's economy, the number of small and medium-sized enterprises is also growing rapidly, and they are playing more and more important roles in the country's economic aspect. According to the statistics data from the National Administration for Industry and Commerce of China, in 2013 the total amount of China's small and medium enterprises and individual industrial and commercial households registered has more than 15 million. By the end of 2016 the number will be more than 70 million. With the annual growth rate of more than 10%, it is estimated that by 2020, China's small and medium enterprises and individual industrial and commercial households will be more than 90 million. SMEs have accounted for more than 99% of the total number of enterprises. According to the guiding spirit of the 18th National People's Congress, it is important to "promote public entrepreneurship innovation, and constantly cultivate new, new kinetic energy to promote sustained and healthy development of small and medium enterprises". With the implement of the next 5 year plan and the in-depth development of China's market economy, the number and size of small and medium enterprises will continue to develop.

While small and medium enterprises are booming, the financing environment for small and medium-sized enterprises is very bad. According to the data from Bank of China released in 2014, we found that by June 2013, the total number of small and medium enterprises has reached 56.51 million yet less than 10% of them could obtain credit support from the bank. China's SME is currently facing problems in difficult financing processes, limited financing channels, high financing costs, and the problem is becoming increasing hard.

Based on this development background, "Smart p&l" SME financing platform firmly grasp



the market development opportunities and access to SME financing market. We are committed to improving the financing of small and medium enterprises, reducing the financing costs of small and medium enterprises, and to provide convenient and standardized services in credit audit and risk assessment for SMEs financing.

1.3 Terms and abbreviations

npm Node Package Manager: the node package manager

Mocha: unit testing tools based on Node.js

API: Application Programming Interface

1.4 reference material

Mocha official documents: <https://mochajs.org/>

Outline Design Specification

Datebase Design Specification

Requirements Specification

2 test summary

2.1 Test case design

This test is mainly to test the API provided by the server for the correctness and fault tolerance:

1. For a single API, the use cases that provide the correct data and the use cases that provide the wrong data are designed separately to test whether the API is consistent with the expected behavior of the design.
2. For a specific transaction process, a number of API tests were designed to test the correctness of the data exchange between the APIs and to test the different situations in the transaction.

Contains a total of 83 test cases for 6 modules:

1. User module
 - a) Register the test
 - b) Login test



- c) Search test
- 2. Friends system module
 - a) friends' application test
 - b) acceptance and rejection of the friends application test
 - c) friends' deletion test
- 3. Friends circle system module
 - a) test of viewing friend circle
 - b) test of publishing the impact of borrowing activities on the circle of friends
 - c) test of publishing the impact of the guarantee activity on the friend circle
 - d) test of publishing a creditor's rights transaction to a friend's circle
- 4. Guaranteed module
 - a) issue a warranty test
 - b) Obtain a guarantee instance information test
 - c) Obtain a guarantee recommendation test
 - d) send a guarantee request test
 - e) Guaranteed complete process testing
 - f) Obtain a guarantee related information test
- 5. Loan module
 - a) Publish a loan test
 - b) Obtain a loan instance information test
 - c) Obtain a loan recommendation test
 - d) send a loan request test
 - e) Borrowing complete process testing
 - f) Get information on loan-related information
- 6. Creditor's rights test
 - a) issue a creditor case test
 - b) Credential plate information acquisition test
 - c) Obtain the claim details

2.2 Test environment and configuration

server configuration:

CPU: single core 1GHz

Memory: 1GB

Hard drive: 50GB

Operating system: Ubuntu 16.04 x64





Database software: MongoDB 3.4

Test database name: citi-test

Client configuration:

Required Software:

Node.js> = 8.0.0

NPM> = 5.0.0

Mocha> = 3.5

2.3 Test methods

Please specify the ip address, port number and account password of the database server for the test in “back-end / config / mongo.js”. Then in the back-end directory, execute the command “npm i” on the command line to install the dependencies, and then execute the npm test to automate all test cases.

