

System Test and User Acceptance Test

1.System Test

2.1 Design test cases for the system test

Please download the '.xlsx' file below to see functional testing cases of sprint 2 .

[System test cases.xlsx](#)

There are 340 test cases for the system test, including 267 cases for the function test, 36 cases for the security test, 22 cases for the performance test, 6 cases for the UI test, 7 cases for the compatibility test and 2 cases for the usability test.

2.2 Execute test cases for the system test

From 24th, May to 25th, May, the testing team spent these two days going through all the test cases for the system test. The figures below could show the final result of the system test.

Report basic information

340

Number of use cases

100.0 %

Use case coverage

97.65 %

Use case pass rate

9

Number of defects

Test library: SaltyFish_System_Test

Test Plan: System Test

Starting time: May 24, 2021

End Time: May 25, 2021

status: completed

principal: CZ Chengyu Zhang

Associated portfolio: ePortfolio - SaltyFish

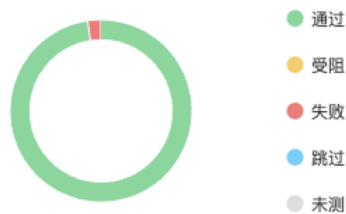
Associated iteration:

Report summary:

This is the final report for the system test of the ePortfolio system of team SaltyFish. We could see there are no high risky functional defects left. The team decided to ignore the left defects since they have no harmful impacts on the level of completion of the website. Actually, most of these defects are related to UI layout and usability.

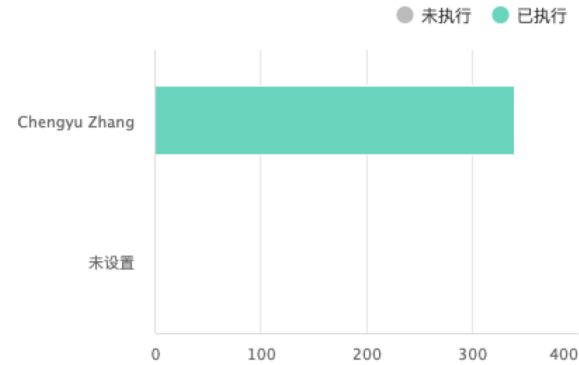
edit

Use case result distribution



result	Number of use cases	Percentage
by	332	97.65%
Blocked	0	0%
failure	8	2.35%
jump over	0	0%
Untested	0	0%

Member implementation



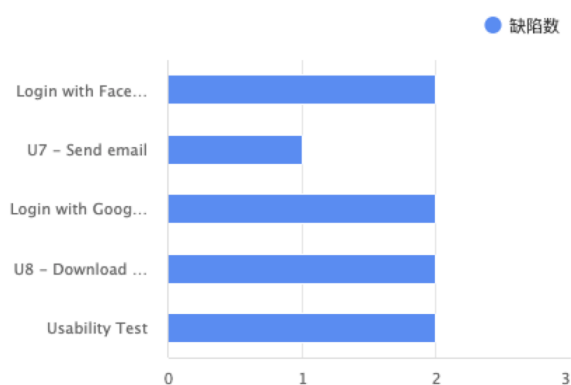
member	Not performed	It has been executed
Chengyu Zhang	0	340
Not set	0	0

Defect statistics



severity	Number of defects	Percentage
fatal	0	0%
serious	0	0%
general	0	0%
Suggest	5	100%

Defect module distribution



functional module	Number of use cases	Number of defects
Login with Facebook account	7	2
U7 - Send email	5	1
Login with Google account	7	2
U8 - Download profile in PDF Format	8	2
Usability Test	2	2

Consulting the testing report above, the team drew the final version of the requirement traceability matrix (RTM). The three tables below show the different status of test cases, severity level of a defect and the final version of RTM, respectively.

• Different status of test cases:

Status of a test case	Description
Passed (P)	Actual results exactly match the expectations.
Failed (F)	This may contain some sub-conditions. On one hand, actual results do not match initial expectations; On the other hand, actual results match the expected outputs but cause other problems. Defects need to be logged and tracked.
Unprocessed (UP)	Test cases that have not been executed yet. This is the default status.
In Progress (IP)	Test cases have been put into process, but not all steps have been finished.
Investigating (I)	Test cases have been executed and corresponding outputs are generated. However, it is hard to decide at the first glance whether these cases are passed or not. Needs additional discussion.
Blocked (B)	Test cases cannot be executed because of blocking issues.

• Severity levels of a defect

Severity	Description
Serious (S)	Cannot perform normal work functions or important functions. Or endanger personal safety.
Major (Ma)	Seriously affect the realization of system requirements or basic functions, and there is no way to correct it.
Minor (Mi)	Seriously affect the realization of system requirements or basic functions, but there are reasonable correction methods.
Cosmetic (C)	It makes the operator inconvenient or troublesome, but it does not affect the execution of work functions or important functions.
Could Ignore (CI)	Defects that out of the scope of Sprint 1, or defects that would not cause any problem in most cases.
Pass (P)	Pass without any defects.

• Requirement traceability matrix (RTM):

Test Name	User Story ID	Status	Defect	Description
Forget password	1	Pass	Pass	Requirements have been met successfully.
Google login	2-1	Pass	Could Ignore	Account would not be frozen if the user input incorrect passwords for more than three times. This may result account vulnerable to brute force decryption, but it is not covered in the scope of our project.
Facebook login	2-1	Pass	Could Ignore	Account would not be frozen if the user input incorrect passwords for more than three times. This may result account vulnerable to brute force decryption, but it is not covered in the scope of our project.
Delete sections	3	Pass	Pass	Requirements have been met successfully.
Reset page	4	Pass	Pass	Requirements have been met successfully.
Add / delete files / pictures	5	Pass	Pass	Requirements have been met successfully.
Copy & paste URL	6	Pass	Pass	Requirements have been met successfully.
Send email to another user	7	Pass	Could Ignore	Cannot change lines by typing 'enter' or typing 'shift + enter'.
Download profile in PDF format	8	Pass	Could Ignore	Background color of the printing page is a little bit dark.

To summarize, although there are still 9 defects left, none of them is harmful to the achievements of the functional requirements. Furthermore, most of them are related to UI design or usability of the system, which are slightly beyond the scope of our initial requirements, so the team decided to ignore these defects. In this case, the team passed the system test, and could move to the next step.

2. User Acceptance Test (Beta Test)

Beta test is an important step in our testing plan. Once passed the user acceptance test (UAT), our product could be regarded as quality guaranteed and could be released and put into actual use. In this step, the team invited two second-year master students of UoM who act as client representatives to a user acceptance test meeting on 27th, May, 2021. Images below are the screenshots of the invitation:

[Invitation 1.jpeg](#). [Invitation 2.jpeg](#)

The testing lead used Wechat to invite client representatives to attend the beta testing meeting. It seems a bit informal, especially that the conversation is in Chinese but translated into English. This is because the two client representatives prefer to communicate in Chinese, and both of them are close friends of one of the team members, so the team does not pay additional attention to politeness. When communicating with other big stakeholders, the team would use more formal methods such as sending a formal meeting invitation email attached with a calendar. Whatever, the meeting has been successfully held, and both two client representatives offered many valuable suggestions, which are recorded in the user acceptance test meeting notes below.

The figure below shows the detail of the UAT meeting:

[UAT meeting detail.png](#)

Below is the meeting record for the UAT meeting:

Meeting Minutes

Date & Time: 2021-5-27 20:00 - 20:38 (Melbourne time)

Location: Tencent Meeting

Recorded by: Chengyu Zhang (Testing lead of team SaltyFish)

Host: Chengyu Zhang

Client representatives Yang Cui, second-year MIT student of UoM

Nanxuan Li, second-year CS student of UoM

1. Help clients build the testing environment.

2. Go through all test cases.

Most of the test cases are the same to the system test, which could be downloaded through this link: [System test cases.xlsx](#). Besides, as required by the client representatives, we also tested functions achieved by the former team but not within the scope of our project. Surprisingly, we found many defects that could have bad effects on the usability of the website.

3. Feedback from the client representatives

In this section, feedback and corresponding suggestions would be recorded in a table. If provided with more time, the team would follow such advice to optimize the system.

ID	Module	Defect Name	Type	Description	Suggestion
1	Beyond the scope of our project	Working period in 'Work Experience' section - no format control	Usability	End date of a specific working experience could be earlier than start date, which is normally not permitted.	Add format control. End date cannot be earlier than the start date.
2	Beyond the scope of our project	Project repository link in 'Projects' section- no format control	Function	Invalid hyperlinks are not banned in the 'Projects' section.	Invalid or non-existing links should be banned.
3	Beyond the scope of our project	Subject year in 'Subjects' section - hard to use	Usability	Subject year is set compulsory, which is not user-friendly.	Subject year should be set as optional, not compulsory.
4	Beyond the scope of our project	Subject year in 'Subjects' section - no format restrict	Function	In the input box of the subject year in 'Subjects' section, not only a particular year, alphabetic characters or strings are also permitted.	Only a particular year is permitted in the input box of the subject year in 'Subjects' section.
5	Beyond the scope of our project	Buttons' style - too big	UI design	All the 'Submit' buttons are larger than the input boxes.	Buttons should be set smaller than the input boxes.
6	Beyond the scope of our project	Type of the transcript file	Usability	When uploading a transcript, only '.PDF' type is permitted.	When uploading a transcript, not only '.PDF' type, '.jpg', '.jpeg', and '.png' should also be permitted.
7	Beyond the scope of our project	Delete photos in 'Gallery' section	Usability	After deleting a picture in 'Gallery' section, the user needs to make another click to see left pictures.	After deleting a picture in 'Gallery' section, left pictures would be automatically displayed to the user.
8	Compatibility Test / Web browser / Safari	A Display problem occur	Compatibility	When using Safari to visit the public view of a user's profile, the navigation bar would cover some of the other sections.	When using Safari to visit the public view of a user's profile, the navigation bar should not cover any other sections.

Besides these defects, the client representatives were satisfied with the overall performance of our website. They were glad to see progress we made after sprint 1, and were surprised about achievements we made during sprint 2. In short, the client representatives admitted that the system had successfully met their initial expectation, and the Beta test was passed.

3.Lessons learned in the UAT

The user acceptance test, which could also be regarded as Beta test, is extremely helpful because it provides an absolutely new standpoint that comes from the clients' perspective. To be specific, as the development process of our project goes, internal testers would gradually get used to the system. In this case, they cannot find more defects, even if these defects seem to be obvious when the system is being tested by the end-users outside the team. In this way, clients may find fatal defects that the testing team failed to point out, which could contribute to the level of completion of the final product.

Additionally, the client representatives could stand in users' shoes, since they are actually representatives of people who are the target customers of the system. In this way, they may have a using preference that most users may have but the testing team does not have, which results in the phenomenon that these client representatives could find defects which are coincidentally missed by the internal testers.

At the end of this report, please let me show sincere gratitude to the two client representatives, Yang Cui and Nanxuan Li. Without their help, the team cannot find what to improve in the future.