**Python Online Judge System**

**Testing Plan & Report**

**Version 1.1**

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1. Document Change Log

|  |  |  |  |
| --- | --- | --- | --- |
| ***Change Date*** | ***Changed By*** | ***Version*** | ***Change Description*** |
| 2019/05/19 | Jianxin Liu | 1 | Finish the report |
| 2019/05/19 | Qiaomu Zhang | 1.1 | Do some improvement |
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1. Testing Plan

## Overview of the Testing Plan

This test report is a test for the Python Online Judge System. The purpose of this test report is to summarize the tests during the test phase and analyze the test results and describe whether the system meets the requirements. And check whether the system runs as we wanted. Some details will be noticed as well.

## Testing Methods

We will use the following test methods to test the user interface, functionality, permissions, and exception handling of the system.

### UI and Hyperlink Test

UI and hyperlink tests will test the user interface. It will include navigation tests, content tests, and page breaks.

### Functional Test

Functional testing will test whether all functions can achieve the desired effect, and whether the system can operate normally during operation

### User permission validation Test

Different identities will have different permissions. We will test the user's identity and the functionality he can use.

### Exception Handing Test

When some user error occurs, the system should also make corresponding processing and response.

1. Testing Report

## Overview of the Testing

### UI and Hyperlink Test

User avatar:

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Behavior | Expected Outcome | Results |
| 1 | Click the user avatar | See the personal information button and exit login button | PASS |
| 2 | Click the profile button | Visit the personal information | PASS |
| 3 | Click the sign out button | Sign out the current account and visit dashboard page | PASS |
| 4 | Click Online Judge Icon | Return homepage | PASS |

Navigation bar :

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Behavior | Expected Outcome | Results |
| 1 | Click the home button | Visit the homepage | PASS |
| 2 | Click the problem set button | Visit the problem set page | PASS |
| 3 | Click the task button | Visit the task page | PASS |
| 4 | Click the status button | Visit the status page | PASS |
| 5 | Click “Admin” drop-down menu | See a frame button--Users, Tags and User groups | PASS |

Home:

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Behavior | Expected Outcome | Results |
| 1 | Click “Add” button | Get an announcement frame that can write a new announcement and his description | PASS |
| 2 | Click modify icon | See the modify frame | PASS |
| 3 | Click delete icon | See the delete frame | PASS |

Problem Set:

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Behavior | Expected Outcome | Results |
| 1 | Go a problem by problem ID | See the problem | PASS |
| 2 | Click “New problem” button | A add new problem page | PASS |
| 3 | Click button in tags frame | Find the related problems | PASS |
| 4 | Go problems by searching title | Find the related problems | PASS |
| 5 | Click any one of status | See the status that you choose | PASS |
| 6 | Click the any one of #(id) | See the problem that you choose | PASS |
| 7 | Click the any one of title | See the problem that you choose | PASS |
| 8 | Click the modify icon | See the modify frame | PASS |
| 9 | Click the set icon | See the test page | PASS |
| 10 | Click delete icon | See the delete frame | PASS |

Task:

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Behavior | Expected Outcome | Results |
| 1 | Click new task button | A add new task page | PASS |
| 2 | Click tasks’ name | Show the problems in the task | PASS |
| 3 | Click problems in tasks that you choose | Show the content about problems | PASS |

Status:

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Behavior | Expected Outcome | Results |
| 1 | Click any one of status | See the status that you choose | PASS |
| 2 | Click the problem ID | See the content about problem that you choose | PASS |

Log-in:

|  |  |  |  |
| --- | --- | --- | --- |
| Step | Behavior | Expected Outcome | Results |
| 1 | Input the correct username and password | N/A | N/A |
| 2 | Click the login button | Log in successfully and enter the dashboard | PASS |
| 3 | Click the remember password | N/A | N/A |

### Functional Test

### Teacher

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Function** | Expected Outcome | **Results** |
| 1 | Login | N/A | N/A |
| 2 | Add/Delete/Change homepage message | Message is edited successfully | PASS |
| 3 | Set users position | User position is set successfully | PASS |
| 4 | Add/Delete students | Add/delete student successfully | PASS |
| 5 | Change the user’s name | User name is changed successfully | PASS |
| 6 | Add/set/delete the group | Add/set/delete the group successfully | PASS |
| 7 | Fuzzy search new user in group | Fuzzy search successfully | PASS |
| 8 | Add/delete the users in group | Add/delete the users in group | PASS |
| 9 | Add/delete new tags | Add/delete new tags successfully | PASS |
| 10 | Add/drop the task and task description | Add/drop the task and task description successfully | PASS |
| 11 | Add/drop the problems and problem description | Add/drop the problems and problem description successfully | PASS |
| 12 | Write the test for solution | Solution is updated | PASS |
| 13 | Add all details for problems | Details is updated | PASS |

### Student

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Function** | Expected Outcome | **Results** |
| 1 | Login | N/A | N/A |
| 2 | Add/Delete/Change homepage message | Not accessible | PASS |
| 3 | Set users position | Not accessible | PASS |
| 4 | Add/Delete students | Not accessible | PASS |
| 5 | Change the user’s name | Not accessible | PASS |
| 6 | Add/set/delete the group | Not accessible | PASS |
| 7 | Add/delete new tags | Not accessible | PASS |
| 8 | Add/drop the task and task description | Not accessible | PASS |
| 9 | Add/drop the problems and problem description | Not accessible | PASS |
| 10 | Update solution | Solution is updated successfully | PASS |
| 11 | Check his status | Allowed | PASS |

### User permission validation Test

|  |  |  |  |
| --- | --- | --- | --- |
| **Teachers** | | | |
| **#** | **Function** | **Permission** | **Results** |
| 1 | Login | Allow | PASS |
| 2 | Add/Delete/Change homepage message | Allow | PASS |
| 3 | Set users position | Allow | PASS |
| 4 | Add/Delete students | Allow | PASS |
| 5 | Change the user’s name | Allow | PASS |
| 6 | Add/set/delete the group | Allow | PASS |
| 7 | Add/delete new tags | Allow | PASS |
| 8 | Add/drop the task and task description | Allow | PASS |
| 9 | Add/drop the problems and problem description | Allow | PASS |
| 10 | Write the test for solution | Allow | PASS |
| 11 | Add all details for problems | Allow | PASS |
| **Students** | | | |
| **#** | **Function** | **Permission** | **Results** |
| 1 | Login | Allow | PASS |
| 2 | Add/Delete/Change homepage message | Not Allowed | PASS |
| 3 | Set users position | Not Allowed | PASS |
| 4 | Add/Delete students | Not Allowed | PASS |
| 5 | Change the user’s name | Not Allowed | PASS |
| 6 | Add/set/delete the group | Not Allowed | PASS |
| 7 | Add/delete new tags | Not Allowed | PASS |
| 8 | Add/drop the task and task description | Not Allowed | PASS |
| 9 | Add/drop the problems and problem description | Not Allowed | PASS |
| 10 | Update solution | Allowed | PASS |
| 11 | Check his status | Allowed | PASS |

### Exception Handing Test

|  |  |  |  |
| --- | --- | --- | --- |
| # | Exception details | Expected behavior | Results |
| 1 | Login an account which has not signed up | Show an error message | PASS |
| 2 | Login an account with wrong password | Show an error message | PASS |
| 3 | Check in an account who doesn’t exist | Show an error message. | PASS |

## Error Report

Errors are not found newly.

1. Contributions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Student ID | Name (in Pinyin/Chinese) | Contribution (in %) | Responsibilities/Work Done | Remarks |
| 1730026075 | 龙跃鹏 | 25% | 60% backend, 20% frontend |  |
| 1730026155 | 赵文博 | 25% | DB, 25% frontend |  |
| 1730026069 | 刘建鑫 | 25% | Test, 25% frontend |  |
| 1730026149 | 张翘沐 | 25% | 30% Frontend, 40%backend |  |
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