Test Plan

# 1. Introduction

The Test Plan has been created to communicate the test approach to team members. It includes the objectives, scope,schedule,risks and approach. This document will clearly identify what the test deliverables will be and what is deemed in and out of scope.The document introduces:

1. Test Strategy：rules the test will be based on, include the gives of the project (eg: start/end dates, objectives, assumptions);description of the process to set up a valid test (eg: entry/exit criteria, creation of test cases, specific tasks to perform, scheduling, data stragtegy).
2. Execution Strategy: describes how the test will be performed and process to identify and report defects, and to fix and implement fixes.

## 1.1 Objectives

The objective of the test to verify that the functionality of SHMUBlog System.The test will execute and verify the test scripts, fix and retest all defects.When we evaluate all software testing activities for the SHMUBlog project, including testing schedule, resources, problems, risks, and coordination between test and program.And we summarize the successful experience and deficiency of testing activities. We test for the success of the SHMUBlog project.

## 1.2 Team Members

Liu Tong

Zeng Kete

Li Pengfei

Liu Zhefeng

# 2.Test Strategy

## 2.1 Test Objectives

SHMUBlog system

### 2.1.1 SHMUBlog Introduction

SHMUBlog is a powerful tool providing users with the ability to view other useful blog and post their meaningful blog.SHMUBlog has many functions and two actors.The administrator module can provide article management, user management, comment management, system reminder, edit user information, website settings.

User authentication includes creating administrator id , password encryption,login and signing out. User module and etc...These functions have to be tested.

## 2.2 Test Principles

1. Testing will be focused on meeting the function and quality.
2. Testing environment and data will emulate a production environment as much as possible.
3. Testing will be a repeatable, quantifiable, and measurable activity.
4. Testing will be divided into distinct phases, each with clearly defined objectives and goals.

## 2.3 Data Approach

In functional testing, modules will contains pre-loaded test data and which is used for testing activities.

## 2.4 Scope and Levels of Testing

### 2.4.1 Exploratory

**Purpose:** the purpose of this test is to make sure critical defects are removed before the next level of testing can start.

**Scope:** user module, administrator module, authentication module, post module.

**Listers**: entire team

**Method:** this exploratory testing is carried out in the application without any test scripts

and documentation

### 2.4.2 Functional Test

**Purpose:** functional testing will be performed to check the functions of application. The

functional testing is carried out by feeding the input and validates the output from the

application.

**Scope**: the below sheet shows the scope of functional test.

|  |  |  |
| --- | --- | --- |
| Module | Function | Author |
| Authentication | login, register,logout | entire team |
| User | index, follow, unfollow, show\_followers, show\_following, show\_collections,  edit\_profile etc... | entire team |
| Post | new\_post, edit\_post, delete\_post, report\_post, show\_post etc... | entire team |
| Administrator | index, manage\_post, delete\_post, manage\_user,  manage\_comment | entire team |

**Listers**: entire team

**Method**: the test will be performed according to Functional scripts, which are stored github.

link: https://github.com/hellckt/SHMUBlog/tree/develop/tests

**Timing**: after Exploratory test is completed.

# Test Execution Process

1. Once all Test cases are approved and the test environment is ready for testing, tester will start a exploratory test of the application to ensure the application is stable for testing.
2. If any issues, defects or failed test will be raised to the Project Manager.
3. Each tester performs step by step execution and updates the executions status.
4. Testing team will participate in defect triage meetings in order to ensure all test cases are executed with either pass/fail category.
5. This process is repeated until all test cases are executed fully with Pass/Fail status.

6.As per Process, final sign-off or project completion process will be followed.

# 4.Risks

The following risks have been identified and the appropriate action identified to mitigate their impact on the project. The impact (or severity) of the risk is based on how the project would be affected if the risk was triggered. The trigger is what milestone or event would cause the risk to become an issue to be dealt with.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| # | Risk | Impact | Trigger | Mitigation Plan |
| 1 | Scope Creep – as testers become more familiar with the tool, they will want more functionality | High | Delays in implementation date | Each iteration, functionality will be closely monitored. Priorities will be set and discussed by stakeholders. Since the driver is functionality and not time, it may be necessary to push the date out. |
| 2 | Changes to the functionality may negate the tests already written and we may loose test cases already written | High | Loss of all test cases | Export data prior to any upgrade, massage as necessary and re-import after upgrade**.** |
| 3 | Testing schedule is tight. | Hgh | Delays time. | The testing team should control the preparation tasks and the early communication with involved parties. |

# 5. Test Environment

|  |  |  |
| --- | --- | --- |
| Environment | Name | Version |
| Operating system | Windows | Windows10 |
| Database | SQLite | 3.26.0 |
| Programming language | python | 3.7 |
| IDE | Pycharm | 2019.1 |
| Browser | Internet Explorer/Google Chrome | IE8,9,10/Google Chrome32.0 |

# 6.Milestones

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task Name | Start | Finish | Effort | Comments |
| Test planning | 09/04/2019 | 15/04/2019 | 7 days |  |
| Review requrirements documents | 15/04/2019 | 16/04/2019 | 2 days |  |
| Create initial test  and train new test resources | 16/04/2019 | 17/04/2019 | 2 days |  |
| exploratory test | 17/04/2019 | 18/04/2019 | 1 day |  |
| Functional testing-Iteration 1 | 19/04/2019 | 21/04/2019 | 3 days |  |
| Functional testing-Iteration 2 | 22/04/2019 | 25/04/2019 | 3 days |  |
| Regression testing | 26/04/2019 | 27/04/2019 | 2 days |  |
| Resolution of final defects and final build testing | 09/04/2019 | 30/04/2019 | 22 days |  |