## Test plan

### Scope of testing

The scope of testing in the project include:

* **Stages of testing**: the team has responsibility to conduct Unite testing, Integration testing and System testing
* **Types of testing**: The test team use functional test, white-box test and user interface testing
* **Range of testing**: Team performs testing all functions defined in the SRS based on the approved version. Test cases of each function are defined in the Test cases document that will be tested to determine if they meet the requirements and intermediate result will also be checked according to the SRS

### Requirement for testing

#### Test items

|  |  |  |
| --- | --- | --- |
| **No** | **Group of functions** | **Functions** |
| Web module | | |
|  | Account control | Login |
|  | Logout |
|  | Change password |
|  | Manage Calendar Event | List calendar events |
|  | Add new calendar event |
|  | Edit calendar event |
|  | Delete calendar event |
|  | Search calendar event |
|  | Manage Case | List all cases |
|  | Add new case |
|  | Search case |
|  | Manage case info | View Case Info |
|  | Edit case info |
|  | Manage operation event | List operation events |
|  | View operation event detail |
|  | Add new operation event |
|  | Edit operation event |
|  | Delete operation event |
|  | Manage Lawyer Related | List lawyer related |
|  | View lawyer related detail |
|  | Assign lawyer related |
|  | Remove lawyer related |
|  | Search lawyer related |
|  | Manage customer related | List customers related |
|  | View customer related detail |
|  | Add customer related |
|  | Remove customer related |
|  | Search customer related |
|  | Manage Subject Related | List subjects related |
|  | Add new subject related |
|  | Edit subject related |
|  | Delete subject related |
|  | Manage Customer | List customers |
|  | View customer detail |
|  | Add new customer |
|  | Edit customer |
|  | Delete customer |
|  | Search customer |
|  | Manage Staff | List staffs |
|  | View staff detail |
|  | Add new staff |
|  | Edit staff |
|  | Deactive/Active staff |
|  | Search staff |
|  | Reset password |
|  | Manage Service | List services |
|  | View service detail |
|  | Add new service |
|  | Edit service |
|  | Delete service |
|  | Search service |
|  | Manage Office | List offices |
|  | View office detail |
|  | Add new office |
|  | Edit office |
|  | Deactive/Active office |
|  | Search office |

#### Acceptance Test Criteria

* Test coverage on system test: >= 97%
* Test successful coverage: >= 97%

Number of test cases failed: less than 3% of total test cases

#### Constraints

* Duration of system testing is from 4 December to 10 December
* Testing team require 3 members

#### Risk list

The project could face with some risks:

* Lack of human resource
* Not enough test case cover for business project

### Test strategy

#### Test policy

* “Test without good faith”
* “Find bugs as soon as possible and always make sure they have been fixed”
* “No outstanding high severity faults”
* “Ensuring the product covers key features and attributes requirements”
* “Each primary function has at least one test case”
* “Focus on main function”
* “If any test fails we need to test again”
* “Using valid and invalid data”

#### Type of testing

##### Functional Testing

Function testing of the target-of-test should focus on any requirements for test that can be traced directly to use cases or business functions and business rules.  The goals of these tests are to verify proper data acceptance, processing, and retrieval, and the appropriate implementation of the business rules.  Identified below is an outline of the testing recommended for each application.

|  |  |
| --- | --- |
| Test Objective: | The type of this test is to ensure proper target-of-test functionality, including user interaction, all function defined in specification document implemented correctly. |
| Technique: | The test team will use use-case testing or checklist-base testing to verify the following:  Checking performance of software interface function.  The appropriate error or warning messages are displayed when invalid data is used.  Each business rule is properly applied. |
| Completion Criteria: | All test case and checklist have been executed and successful coverage > =97%. |
| Special Considerations: | Testing may be stopped when   * Time runs out * A certain number of defects found * Test coverage > 97% * Stop when testing becomes unproductive |

Table 5-1: Functional testing

##### User Interface Testing

User Interface (UI) testing verifies a user’s interaction with the software. The goal of UI testing is to ensure that the User Interface provides the user with the appropriate access and navigation through the functions of the target-of-test.  In addition, UI testing ensures that the objects within the UI function as expected and conform to corporate or industry standards.

|  |  |
| --- | --- |
| Test Objective: | Verify the following: Navigation through the target-of-test properly reflects business functions and requirements, including window-to-window, field-to-field, and use of access methods (tab keys, mouse movements, accelerator keys |
| Technique: | Use checklist and finite-state machine to create test case. |
| Completion Criteria: | All test case and checklist have been executed and successful coverage > =97%. |

Table 5-2: User Interface testing

#### Test stage

Clearly state the stage in which the test will be executed. Identified below are the stages in which common test are executed

|  |  |  |  |
| --- | --- | --- | --- |
| Type of Tests | Stage of Test | | |
| Unit | Integration | System |
| Function Test |  | x | x |
| User Interface test | x |  | x |
| Whitebox test | x |  |  |

Table 5-3: Test stages

#### Tools

|  |  |  |  |
| --- | --- | --- | --- |
| Purpose | Tool | Vendor/In-house | Version |
| Access to website | Firefox |  |  |
| Keep tracking defects | MS Word |  | Office 2010 & 2013 |
| Test Plan | MS Word |  | Office 2010 & 2013 |
| Test Case, Test Report | MS Excel |  | Office 2010 & 2013 |

Table 5-4: Tools

#### Resources

This table shows the staffing assumptions for the project.

|  |  |
| --- | --- |
| Worker/Doer | Specific Responsibilities/Comments |
| Đặng Nguyễn Khiêm  Trần Anh Tuấn  Phạm Văn Duy  Lê Duy Hoàng | Manage Test resource and assign test tasks  Create Test Plan  Review Test Cases  Create Test Report  Execute Test |

Table 5-5: Human resource

#### Schedule

Duration of all testing is from 22 October to 10 December

Duration of create test plan, test case and checklist are from 22 October to 29 October