## 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 have to test functional 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: >= 97%
* Test successful coverage: >= 97%

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

#### Constraints

* Duration of testing is from 4 December to 10 December
* Testing team require 3 members
* The program has many functions so the number of line code is also, lead to have more number of test cases.

#### Risk list

The project could face with some risks:

* Tester has not familiar with law system
* Lack of time and resources for testing

### 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”

#### 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 execute each use case, use-case flow, or function, using valid and invalid data, to verify the following:  The expected results occur when valid data is used.  The appropriate error or warning messages are displayed when invalid data is used.  Each business rule is properly applied. |
| Completion Criteria: | All planned tests have been executed.  All identified defects have been addressed and closed |
| 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: | Create or modify tests for each page to verify proper navigation and object states for each page |
| Completion Criteria: | Each window successfully verified to remain consistent with benchmark version or within acceptable standard |

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 | x |
| User Interface test | x |  | 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