

**Capstone Project Report**

**Report 5 – Software Test Documentation**

– HoChiMinh, April 2025 –

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# I. Record of Changes

|  |  |  |  |
| --- | --- | --- | --- |
| Date | A\*  M, D | In charge | Change Description |
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|  |  |  |  |

\*A - Added M - Modified D - Deleted

# II. Testing Documentation

## 1. Scope of Testing

We plan to define test cases in main flow only.

## 2. Test Strategy

We use Incremental testing for some approaches:

Each module is required a role to use clearly

Each module could test at the early stage of the develop process

### 2.1 Testing Types

Function testing is a type of test and mainly involves black box testing. The testing occurs by providing input from the user and checking for expected output. This testing checks User interface, APIs, Database, Server/Client communication. The test can be done manually or automatically.

Non-function testing is not related to any function or feature of the system, it is used to test project performance or security. There are testing types such as performance testing, load testing, stress testing, usability testing, maintainability testing, reliability testing.

### 2.2 Test Levels

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Type of Tests | Test Level | | | |
| Unit | Integration | System | Acceptance |
| Function testing | X | X | X | X |
| User interface testing |  |  | X | X |

### 2.3 Supporting Tools

|  |  |  |  |
| --- | --- | --- | --- |
| Purpose | Tool | Vendor/In-house | Version |
| test case notes and storage | Excel/Google Docs | microsoft |  |

## 3. Test Plan

### 3.1 Human Resources

|  |  |  |
| --- | --- | --- |
| **Worker/Doer** | **Role** | **Specific Responsibilities/Comments** |
| Nguyễn Trần Minh Luân | Member | Unit testing, Integration testing, System testing, and Acceptance testing |
|  |  |  |

### 3.2 Test Environment

|  |  |  |  |
| --- | --- | --- | --- |
| **Purpose** | **Tool** | **Provider** | **Version** |
| Swagger makes API development easy. Our platform offers the tools to simplify each step of the API building process and streamlines collaboration so you can apply this for unit testing | swagger | SmartBear Software[ | 3.x |
| Chrome is a platform for our web application to run on it. | Chrome | Google | v 86.0.4240.198 |

### 3.3 Test Milestones

|  |  |  |  |
| --- | --- | --- | --- |
| Milestone Task | Effort(md) | Start Date | End Date |
| Unit test API | 7 | 1/3/2025 | 9/4/2025 |
| Functional testing in front-end | 7 | 7/3/2025 | 9/4/2025 |
| System test | 7 | 15/3/2025 | 9/4/2025 |
| User acceptance test | 7 | 22/3/2025 | 9/4/2025 |

## 4. Test Cases

Source: [Report5\_Unit Test.xls](Report5_Unit%20Test.xlsx)

## 5. Test Reports

Source: [Report5\_Test Report.xlsx](Report5_Test%20Report.xlsx)