

**International School**

**Capstone Project 1**

CMU-SE 450

**Test Plan Document**

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**viBOTour - Smart Chatbot for Tourist 4.0**

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**Project Information**

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**Test Plan Document**

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**Document Approvals**

The following signatures are required for approval of this document.

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# **Introduction**

A test plan is a detailed software verification document that provides specifics on how the validate will test all aspects of software design. Test plans are test specifications used as guides for writing test case suites for design validation in both the software engineering fields. This test plan document contains a description of product functionality, a description of test cases to be written for each function, and a description of the testing platform to be used.

## **Purpose**

The purpose of the Test Plan is to define, schedule and monitor the test execution. It supports the following objectives:

* Provide a high-level list of the major target test functions
* List the Requirements for Test
* Describe the testing strategies to be employed on each target test functions
* Identify the required resources and schedule the Test execution

## **Scope**

This Test Plan is for release test plan for viBOTour system.

The Test Plan defines the unit, integration and system testing approach. The test scope includes the following:

* Testing of all functions
* Application performance
* Use cases requirements listed in the Product Backlog and User Stories document

## **Out of scope**

The following is considered out of scope for viBOTour Test Plan and testing scope: Performance testing for viBOTour system

## **Reference**

**Table 1: Document references**

|  |  |
| --- | --- |
| **No** | **Document references** |
| 01 | Proposal document |
| 02 | Product Backlog document |
| 03 | Project Plan Document |

## **Risk list**

**Table 2: Risks list**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Risk** | **Mitigation Strategy** | **Responsibility** | **Contingency (Risk is realized)** |  |
| External Risks | Get fewer projects but will definitely succeed or have a high success rate | Not under control of the Project Team or Project Steering Group | Do your part, recognize and eliminate risks as soon as possible |  |
| Project Management | Agree on all the standards before starting the project | Leader | It is mandatory to revise the whole project to the original standard if it is not correct |  |
| Tester | Sick , busy or crash cannot do it | Team tester | self-supplementing undo their assigned work, the way other members are supposed to support |  |
| Technology | Technology analysis before starting each project | Tester | Exchange learning in groups |  |
| Tester Skill | Train, or recruit experienced people | Tester, Team leader | Train technology professionals or invite professors to help with the project |  |
| Estimate Plan | Calculate carefully and accurately when taking requests and analyzing, apply good models and methods for estimation | Request Collectors, Request Analyst | Enlist the product delivery time or overtime for timely delivery |  |
| Automation Tool Risks | Choose the right tools and quality, check the tools before starting the project | Tester, Team leader | Exchange in groups, Change new tools and remove inconsistent tools |  |
| Out of system scope | Analyze and find solutions to test all testable areas | Tester |  |  |

# **Target Test Areas**

* Black box Testing

# **Test Specification**

## **Features**

**Mobile**

* FE01 – Authentication user’s account
* Login with email
* Register with email
* Forgot password
* FE02 – Chat with smart chatbot
* Send messages
* Select the response message
* Ask for voice assistance
* Customize the shedule
* FE03 – Manipulate with tours
* Book tours
* Delete tours
* Rating tour
* FE04 – Tour payment
* Checkout tours
* FE05 – Search tour
* Find tour on chat bot
* Find tour in main page
* FE06 – Receive notifications
* Send OTP code to the phone number
* Send OTP code to email
  1. **Test deliverables**
* Test Plan Document
* Test Case Document
* Test Summary Report

## **Requirements for test**

**Test items**

The following list describes the features that will be tested:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ID Function** | **Function** | **A part of** | **Priority** | **Type test case** | **Constraints** |
| FE01 – 01 | Login with email | Authentication | 3 | User interface  Function test | The user can log in with their email and password with OTP authentication to use other features |
| FE01 - 02 | Register with email or google account | 3 | User interface  Function test | The users can register by email or with google account |
| FE01 - 03 | Forgot password | 2 | User interface  Function test | The users can retrieve their forgotten password and install a new one |
| FE02 – 01 | Send messages | Chat with smart chatbot | 3 | User interface  Function test | The users can send a message to the smart chatbot to request assistance |
| FE02 – 02 | Select the response message | 3 | User interface  Function test | The users can select suggested messages from the chat bot |
| FE02 – 03 | Ask for voice assistance | 2 | User interface  Function test | The users can request assistance, some of the features from the voice chat bot |
| FE02 – 04 | Customize the shedule | 2 | User interface  Function test | The users can create schedules by themselves according to their personal preferences depending on suggested locations from the chatbot |
| FE03 – 01 | Book tour | Manipulate with tours | 3 | User interface  Function test | The users can book a suggested tour on the main screen |
| FE04 – 01 | Checkout tours | Tour payment | 3 | User interface  Function test | The users can pay for any tour they have booked |
| FE05 – 01 | Search tour on chat bot | Search tour | 1 | User interface  Function test | The users can search for a suitable tour through the chat bot |
| FE05 – 02 | Search tour on home page | 1 | User interface  Function test | The users can search for tours through the location in the main screen |
| FE05 - 03 | Send OTP code and verification with phone number | Receive notifications | 2 | User interface  Function test | When users want to send or receive verification codes by phone number, they will receive a notification |
| FE05 - 04 | Send OTP code and verification with email | 2 | When users want to send or receive verification codes by phone number, they will receive a notification |

**Test strategy**

* Describe the overall approach to testing. For each major group of features or feature combinations, specify the approach which will ensure that these feature groups are adequately tested. Specify the major activities, techniques, and tools which are used to test the designated groups of features
* The approach should be described with sufficient details to permit identification of the major testing tasks and estimation of the time required to do each one.

**Hardware environment**

* Computer Asus GL552VX
* Xiaomi Redmi Note 9s

## **Test schedule**

**Human resources**

|  |  |
| --- | --- |
| **Name** | **Role** |
| Pham Van Thuyen | Tester |

**Test Schedule**

|  |  |  |  |
| --- | --- | --- | --- |
| Sprint 1 | Authentication in app | Pham Van Thuyen | 31/08/2020-18/09/2020 |
| Develop backend for register |
| Design frontend for register |
| Develop backend for login |
| Design frontend for login |
| Integrate login with google |
| Develop app dashboard |
| Design app interface |
| Design app interface |
| View tour detail for app |
| Backend api for tour detail |
| Front-end for tour detail |
| Sprint 2 | Book tour on app | Pham Van Thuyen | 21/09/2020-10/10/2020 |
| Backend api for booking tour |
| Frontend ui for booking tour |
| View shopping cart |
| Back-end api for view shopping cart |
| Pay tour on app |
| Back-end api for pay tour |
| Handle transaction |
| Front-end ui for pay tour |
| Search tour on app |
| Back-end api for seaching tour |
| Front-end for displaying tour results |
| Develop chatbot suggests tours, tourist attractions |
| Handling input messages |
| Suggest tours and places |
| Develop chatbot support booking tour |
| Guide tourist for choosing tour |
| Handle booked tour on chatbot |
| Receive notification for tourists on app |
| Back-end for notification |
| Front-end for display notifications |
| Backend for add tour |
| Frontend for add tour |
| Update tour |
| Back-end for add tour |
| Front-end for add tour |
| Delete tour |
| Handling delete tour |
| Integrate wheather information for chatbot |
| Research iontegrsting wheather technical |
| Collect wheather data from api |
| Backend api for wheather integration |
| Frontend for handing results in chatbot |
| Add promotion |
| Back-end for add promotions |
| Front-end for add promotions |
| Update promotion |
| Back-end for update promotions |
| Front-end for update promotions |
| Manage users |
| Backend for manage users |
| Front-end for manage users |
| Backend for viewing promotions |
| Front-end for viewing promotions |
| Chatbot in webpage |
| Backend for chatbot in webpage |
| Front-end for chatbot in webpage |
| Tourist check paid tours in app |
| Back-end API for Pay tour |
| Front-end UI for pay tour |
| Display top tour voted |
| Back-end API for view top voted tours |
| Front-end for top tours |

# **Test Cycle and Exit Criteria**

## **Entry criteria**

* All test hardware platforms must have been successfully installed, configured, and functioning properly.
* All the necessary documentation, design, and requirements information should be available that will allow testers to operate the system and judge the correct behavior.
* Proper test case is available.
* The test environment such as, lab, hardware, software, and system administration support should be ready.

## **Exit criteria**

* All test cases have been run.
* A certain level of requirements coverage has been achieved.
* No high priority or severe bugs are left outstanding.
* All high-risk areas have been fully tested, with only minor residual risks left outstanding.
* The schedule has been achieved.
* Not over the allowed project budget