

International School

**Capstone Project 2**

CMU-SE 451

**Test Plan Document**

**Version 2.0**

**Date: 12/04/2021**

**ViVu - The smart travel system supports with chatbot and short video social network**

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**PROJECT INFORMATION**

|  |  |  |  |
| --- | --- | --- | --- |
| **Project acronym** | ViVu | | |
| **Project Title** | The smart travel system supports chatbot and integrates short video social network | | |
| **Start Date** | 22 Feb 2021 | **End Date** | 30 May 2021 |
| **Lead Institution** | International School, Duy Tan University | | |
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**REVISION HISTORY**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Comments** | **Author** | **Approval** |
| 1.0 | 01/09/2020 | Create Test Plan Document | All members |  |
| 1.1 | 22/09/2020 | Official Test Plan Document | All members |  |
| 1.2 | 06/10/2020 | Test Plan Document | All members |  |
| 1.3 | 16/11/2020 | Update Test Plan Document | All members |  |
| 2.0 | 12/04/2021 | Update Test Plan Document | All members |  |

### TABLE OF CONTENTS

1. [Introduction 5](#_bookmark0)
   1. [Purpose 5](#_bookmark1)
   2. [Scope 5](#_bookmark2)
   3. [Out of scope 6](#_bookmark3)
   4. [Reference 7](#_bookmark4)
   5. [Risk list 7](#_bookmark5)
2. [Target Test Areas 8](#_bookmark6)
3. [Test Specification 9](#_bookmark7)
   1. [Features 9](#_bookmark8)
   2. [Test deliverables 10](#_bookmark9)
   3. [Requirements for test 11](#_bookmark10)
   4. [Test schedule 14](#_bookmark11)
4. [Test Cycle and Exit Criteria 19](#_bookmark12)
   1. [Entry criteria 19](#_bookmark13)
   2. [Exit criteria 19](#_bookmark14)

# 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 ViVu system.

The Test Plan defines the unit, integration and system testing approach. The test scopes

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 ViVu Test Plan and testing scope: Performance testing for ViVu system

## Reference

#### Table 1: Document references

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

## Risk list

#### Table 2: Risk 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 | |
| Automat ion 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

## 3.1.1 Capstone 1

#### 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 schedule
    - 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

#### Web application

* + - FE01 – Authentication user’s account
      * Login with email account
      * Register with email account
    - FE02 – [View list tour](https://docs.google.com/document/d/1MCTRB13agT26bVhPhyKPtuauNJHFzIs3amIKJVVVeF0/edit#heading%3Dh.fgmjbzscsag4)
      * Show all list tour on main page
    - FE03 – [View tour detail](https://docs.google.com/document/d/1MCTRB13agT26bVhPhyKPtuauNJHFzIs3amIKJVVVeF0/edit#heading%3Dh.13k2mgkp7hx8)
      * Show all list tour on main page
    - FE04 – [Suggest tour](https://docs.google.com/document/d/1MCTRB13agT26bVhPhyKPtuauNJHFzIs3amIKJVVVeF0/edit#heading%3Dh.hga1ycg0yhr8)
      * Recommended tour with the most people
    - FE05 – Invite upgrade position
      * Send email to invite a staff or manager
    - FE06 – Manage promotions
      * Display, add, edit and delete promotions
    - FE07 – Manage tours
      * Add, edit, delete tours
    - FE08 – Manage users
      * Add, edit, delete users
    - FE09 – Support weather information
      * Integrate weather data in chatbot
    - FE10 – Edit user’s profile
      * Allow edit user’s profile on the application
    - FE11 – Tour payment
      * Checkout tour and check paid tour
    - FE12 – View popular tours
      * View the tours that on are most interested
    - FE13 – View report
      * Show detail tourist’s report

## 3.1.2 Capstone 2

* + - FE01 – Social Network
      * Share the travel moments to the family, parent, friend.
    - FE02 – Create, upload short video, story video on the social network
      * Customize various story videos to share
    - FE03 – Emotional interaction in story video
      * Interact emotionally on the videos of friends, family,
    - FE04 – Comment on the short video, story video on the social network
      * Comment, rate and analyze the videos on the social networks.
    - FE05 – Scan the ticket code
      * Payment for the travel
    - FE06 – The tourist destination map
      * Track the schedule and destination to travel
    - FE07 – View the promotion for the travel
      * Using the promotions to reduce travel costs
    - FE08 – Customize the schedule
      * Recommend, rate the places that the tourists can visit
    - FE09 – Interaction with the tour guide
      * Earn points by posting moments on social media
    - FE10 – Gain social points
      * Earn points by posting moments on social media
    - FE11 – Digital wallet, electronic wallet
      * Payment for the service, and use promotions
    - FE12 – Review the history post-interaction
      * Review the history of interactions on the application for easy follow-up
    - FE13 –Track activities of friends, family on the social network
      * Want to know where my relatives, friends, family are traveling
    - FE14 – Recommend interesting videos
      * Watch interesting story video on the travel social network
    - FE15 – Ignore the videos, content that are not suitable
      * Keep track of content, story video that are healthy, relevant to my interests
    - FE16 – Report the harmful video, malicious videos
      * Report malicious videos to the administrator so they can remove them
    - FE17 – Receive notification about the interesting travel
      * Follow interesting travel, new travel that match my location
    - FE18 – Ignore the videos, content that are not suitable
      * Watch interesting story video on the travel social network

## Web application

* + - FE01 – Manage all the user vouchers and the promotions
      * Create, update, delete the promotion and manage user vouchers
    - FE02 – Manage all the post, story video, short video
      * Update, delete the posting, harmful video, malicious video
    - FE03 – Manage user bonus points
      * Create, update, delete the bonus points of users
    - FE04 – Manage all user messages
      * Follow the messages between the tour guide and the user so that I can provide timely assistance

## 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,  Functionality,  Usability | | 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,  Functionality,  Usability | | The users can register by email or with google  account |
| FE01 - 03 | Forgot password | 2 | | User interface,  Functionality,  Usability | | The users can retrieve their forgotten password and  install a new one |
| FE02 – 01 | Send messages | Chat with smart chatbot | 3 | | User interface,  Functionality, | | The users can send a message to the smart chatbot to request  assistance |
| FE02 – 02 | Select the response message | 3 | | User interface,  Functionality,  Usability | | The users can select suggested messages from  the chat bot |
| FE02 – 03 | Ask for voice assistance |  | | 2 | | User interface,  Functionality,  Database Test Case | The users can request assistance, some of the features from the voice  chat bot |
| FE02 – 04 | Customize the schedule | 2 | | User interface,  Functionality,  Usability | 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,  Functionality,  Usability | The users can book a suggested tour on the main  screen |
| FE03 – 02 | Delete tour | 3 | | User interface,  Functionality | The users can delete the tours to search for another  suitable tour |
| FE03 – 03 | Rating tour | 2 | | User interface,  Functionality, Usability | The users want to  rate the tours they have taken |
| FE04 – 01 | Checkout tours | Tour payment | | 3 | | User interface,  Functionality,  Usability | 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,  Functionality,  Usability | 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,  Functionality,  Usability | 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 |
| FE06 – 01 | Create, upload the short video, story video on the social network | Social network | | 3 | | User interface,  Functionality,  Usability,  Unit Test Case | The user want to create, upload their moments, or customizing their video |
| FE06 – 02 | Emotional interaction in the story video | Emotional, interaction on the social network | | 1 | | User interface,  Functionality,  Usability, | Increase or decrease the interactive emotion on the video |
| FE06 – 03 | Comment on the short video, story video | Comment | | 1 | | User interface,  Functionality,  Usability, | Limit the number of characters when people comment on videos. |
| FE06 – 04 | Scan the ticket code on the ViVu Application | Scan the ticket | | 1 | | User interface,  Functionality,  Usability, | Check the validity of the QR code and scan the QR ticket. |
| FE06 – 05 | Show details the destination map | Destination map | | 1 | | User interface,  Functionality,  Usability, | Check the status map when the network connection is lost |
| FE06 – 06 | View promotion on the ViVu application | View promotion | | 1 | | User interface | Show the correct promotions with blueprints |
| FE06 – 07 | Customize the schedule | Customize the schedule | | 1 | | User interface,  Functionality, | Check out the schedule that suits you at the place and time in Da Nang |
| FE06 – 08 | Send, receive the message and interact with the tour guide | Interact with the tour guide | | 1 | | User interface,  Functionality, | Confirm sending and receiving of messages between user and tour guide |
| FE07 – 01 | Get bonus points for getting more engagement on my posts | Gain social points | | 1 | | User interface,  Functionality, | Increase or decrease bonus points when users get more interactions on their video stories |
| FE07 – 02 | Easy e-wallet and redeem rewards. | Digital wallet, electronic wallet | | 1 | | User interface,  Functionality | Increase or decrease bonus points when users get more interactions on their video stories |
| FE07 – 03 | Review the history of interactions on the application for easy follow-up | Review the history post-interaction | | 1 | | User interface | Show engagement histories with story video correct to blueprints |
| FE07 – 04 | Know where my friends or family are traveling | Track activities of friends, family | | 1 | | User interface,  Functionality, | Display video stories in turn on travel social network VIVU application |
| FE07 – 05 | Suggest interesting travel moments on the application | Suggest the interest video | | 1 | | User interface,  Functionality, | Suggest interesting videos in turn on VIVU every 1 second |
| FE07– 06 | Keep track of content, story video that are healthy, relevant to my interests. | Ignore the videos, content that are not suitable | | 1 | | User interface,  Functionality, | Ignore invalid videos and content when users upload videos to social networks VIVU |
| FE07– 07 | Report videos with inappropriate content on the travel social network | Report the harmful video, malicious videos | | 1 | | User interface,  Functionality, | Show dropdown button when user wants to report that malicious video |
| FE08 – 01 | Get notifications from interesting social media videos | Receive notification | | 1 | | User interface,  Functionality, | Receive notifications on the status bar when there is a new promotion |
| FE08 – 02 | Manage all the user vouchers and the promotions | Manage vouchers and promotions | | 1 | | User interface,  Functionality, | Add, edit, delete promotions on VIVU web exactly with the fields that admin entered |
| FE08 – 03 | Update, delete the posting, harmful video, malicious video | Manage all post, story video | | 1 | | User interface,  Functionality, | The admin is allowed to edit and delete invalid video content |
| FE08 – 04 | Create, update, delete the bonus points of users | Manage bonus points | | 1 | | User interface,  Functionality, | Add, edit and delete bonus points for users who gain every week |
| FE08 – 04 | Follow the messages between the tour guide and the user so that I can provide timely assistance | Manage all user messages | | 1 | | User interface,  Functionality, | It is allowed to add, delete, edit users when users have invalid actions and comments on social networks |

#### 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 searching 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 |
| Sprint 3 | Develop authentication for web | Pham Van Thuyen | 05/10/2020-  25/10/2020 |
| Backend API for login |
| Handle access control |
| Frontend for login webpage |

|  |  |  |  |
| --- | --- | --- | --- |
|  | Develop website dashboard |  |  |
| View list tour in the webpage |
| Backend for list tour |
| Frontend for displaying tours |
| View tour detail in the webpage |
| Backend for tour detail |
| Frontend for displaying tour  details |
| Suggest tour schedule in the  chatbot |
| Request more data for created  tour |
| Suggesr some schedule tours for  tourist |
| Send email invite staff or  manager |
| Gennerate access token  authentication |
| Send email with link confirm |
| Front-end for send invited email |
| Sprint 4 | Add tour | Pham Van Thuyen | 26/10/2020-  15/11/2020 |
| 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 weather information  for chatbot |  |  |
| Research integrating weather  technical |
| Collect weather data from API |
| Backend API for weather  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 |
| Sprint 5 | View list promotion for tourist | Pham Van Thuyen | 16/10/2020-  02/12/2020 |
| 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 |
| Sprint 6 | Create, upload the short video, story video on the social network | Pham Van Thuyen | 16/10/2020-  02/12/2020 |
| Emotional interaction in the story video |
| Comment on the short video, story video |
| Scan the ticket code on the ViVu Application |
| Show details the destination map |
| View promotion on the ViVu application |
| Customize the schedule |
| Send, receive the message and interact with the tour guide |
| s Sprint 7 | Get bonus points for getting more engagement on my posts | Pham Van Thuyen | 2626/03/2021-  02/04/2021 |
| Easy e-wallet and redeem rewards |
| Review the history of interactions on the application for easy follow-up |
| Know where my friends or family are traveling |
| Suggest interesting travel moments on the application |
| Keep track of content, story video that are healthy, relevant to my interests. |
| Report videos with inappropriate content on the travel social network |
| Sprint 8 | Get notifications from interesting social media videos | Pham Van Thuyen | 2603/04/2021-  05/05/2021 |
| Manage all the user vouchers and the promotions |
| Update, delete the posting, harmful video, malicious video |
| Create, update, delete the bonus points of users |
| Follow the messages between the tour guide and the user so that I can provide timely assistance |

# 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