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**CAPSTONE PROJECT 1**

**TEST PLAN DOCUMENT**

**Beacon - Voice Assistant for Visually Impaired People on Windows**

**CODE :** TEST\_PLAN\_v2.0

**Date  :** Oct-21, 2023

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**Project Information**

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| **Project acronym** | Beacon | | |
| **Project Tittle** | Voice Assistant for Visually Impaired People on Windows | | |
| **Start Date** | 01 Sep 2023 | **End Date** | 03 Dec 2023 |
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| --- | --- | --- | --- |
| **Document Title** | Test Plan |  |  |
| **Reporting Period** | Oct 2023 |  |  |
| **Date** | 21 October 2023 | Filename | 9.C1SE.05\_Test\_Plan\_BEACON\_ver2.0.docx |
| **URL** |  | | |
| **Access** | Project and CMU Program | |  |

|  |  |  |
| --- | --- | --- |
| Document History | | |
| **Version** | **Date** | **Comments** |
| V1.0 | 04 Oct 2023 | Create test plan for sprint 1 |
| V2.0 | 21 Oct 2023 | Create test plan for sprint 2 |

**Document Approvals:** The following signatures are required for approval of this document.

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# **Quality Objectives**

Planning for the project Beacon - Voice Assistant for Visually Impaired People on Windows testing, to ensure that the testing is done according to plan, implements fully the necessary requirements, has high work efficiency, and gives the best product.

# **Scope of test**

## **Function**

* **Speech to Text**
  + Input data from voice.
  + Input data from file.
* **Text to Speech**
  + Input data from string.
* **Listen to music**
  + Access song by link
  + Control Driver to access
* **Find content News**
  + Fetch data from link
  + Control Driver to access
* **Control Volume**
  + Change volume by string.
* **Migration read new with Control Driver**
  + Access news by link and visualization on Chrome Driver
  + Fetch data from link
* **Conversation with user (text to speech, speech to text)**
  + Input data from voice
* **Build Web API**
  + Request data from link
* **Build an application on Windows**
  + Install application by file (.exe, .msi)
  + Start application by portable version.
* **Collect Conversation**
  + Input data from voice
  + Request data from server
* **Independent Virtual Assistant**
  + Multiple device check
* **Update Version**
  + Upload new version of Beacon App
* **Website version management and user data**
  + Restore old version
  + Delete a version
  + Add label to data of user
* **Intent Recognition**
  + Input data via user
* **Automatic software update**
  + Fetch version from server

## **User Interface**

### **2.2.1. Desktop Application**

* **Layout**
  + Sidebar
  + Toolbar
* **Home**
  + Default
  + Active
* **Conversation History**
* **Setting**
* **About**

### **2.2.2. Website**

* **Homepage**
  + Banner
  + About Section
  + Download Section
  + About Team Section
  + Contact Section
* **Dashboard**
  + Manage User
  + Manage Data
  + Manage Version

## **Database**

# **Test strategy**

We are using Black box testing due to the fast life cycle of the project:

* Manual Test (Exploratory Testing).
* Acceptance Test.
* Functional Test (Function, UI).

# **Test criteria**

* The Testing process finishes when 95% of test cases pass status.
* Testing all test cases.
* The document will be delivered to the customer when sprint time is finished.

# **Test management**

## **Communication tools**

* Trello, GitHub, Slack: Report bugs, notify updates, ...
* Slack: Chat, discuss.
* Google-meet: Discuss online members.
* Zalo: Contact, and discuss with mentor MSc Tran Kim Sanh

## **Test management tools**

|  |  |  |  |
| --- | --- | --- | --- |
| **Purpose** | **Tool** | **Vendor/In-house** | **Version** |
| Excel Sheet to track Test Plan and Test Case | Google Sheet | Google | Latest |

# **Risks and assumptions**

## **Risks**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Risk** | **Definition** | **Probability** | **Severity** | **Mitigation Strategy** |
| Scope Risk | Some functions are still unclear. | H | H | Testing in each plan |
| Scheduling Risk | Testing projects are not efficiently or completely | M | M | Move the not finish part of module to the next sprint |
| Time management | Most of the time is for development, not for testing. | M | H | Overtime |
| Operation Risk | Ineffective processing, system failures, or unanticipated circumstance define operational risk | M | M | Estimate more time to testing and other issues. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Probability** | | **Severity** | |
| L | Rarely happens. | L | Low damaged |
| M | Sometime happened | M | Medium damaged |
| H | Usually happened | H | High damaged |

## **Assumptions**

|  |  |  |
| --- | --- | --- |
| **Assumption to be proven** | **Impact of Assumption being incorrect** | **Owners** |
| Network Available | Dropout network, unstable network | Network Providers |

# **Test schedule**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Task Name** | **Effort** | **Start** | **Finish** | **Resources** |
| **1** | **Sprint 1** | **44h** | **9 Oct** | **13 Oct** |  |
| 1.1 | Test Speech to Text | 10h | 12 Oct | 13 Oct | Thao |
| 1.2 | Test Text to Speech | 6h | 9 Oct | 10 Oct | Thao |
| 1.3 | Test Listen to music | 2h | 13 Oct | 13 Oct | Thao |
| 1.4 | Test Find content News | 3h | 10 Oct | 10 Oct | Thao |
| 1.4 | Test Control Volume | 5h | 10 Oct | 11 Oct | Thao |
| 1.5 | Test Layout Desktop App | 6h | 10 Oct | 11 Oct | Thao |
| 1.6 | Test Home Desktop App | 4h | 12 Oct | 12 Oct | Thao |
| 1.7 | Test Conversation History Desktop App | 2h | 13 Oct | 13 Oct | Bao |
| 1.8 | Test Setting Desktop App | 4h | 12 Oct | 12 Oct | Bao |
| 1.9 | Test About Desktop App | 2h | 13 Oct | 13 Oct | Bao |
| **2** | **Sprint 2** |  |  |  |  |
| 2.1 | Test Web API |  |  |  |  |
| 2.2 | Test Listen to Music - Control Chrome Drive |  |  |  |  |
| 2.3 | Read news - Control Chrome Driver |  |  |  |  |
| 2.4 | Convert Speech to Text from Python -> Javascript |  |  |  |  |
| 2.5 | Test Automatic software updates |  |  |  |  |
| 2.6 | Test Independent Virtual Assistant |  |  |  |  |
| 2.7 | Test Intent recognition |  |  |  |  |
| 2.8 | Test Execute intent |  |  |  |  |
| 2.9 | Test Layout Website |  |  |  |  |
| 2.10 | Test Login Website |  |  |  |  |
| 2.11 | Test Management Website |  |  |  |  |
| 2.12 | Move new source and refactor code |  |  |  |  |

# **References**