Test Report

For

Natural Language Understanding Module

Version 1.3

Prepared by the Tongue Twisters Project Team:

Andrew Rohn, Eskedar Endashw, Firehiwot Chari, Joseph Kalfus, Leelakrishnan Subramaniam, Malik Webster & Obinna Okonkwo.

November 5th, 2021

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| October 24, 2021 | 1.0 | Initial Release Template | Firehiwot Chari |
| November 3, 2021 | 1.1 | Added unit/integration tests | NLU and App team |
| November 5, 2021 | 1.2 | Added test summaries | Andrew Rohn |
| November 5, 2021 | 1.3 | Fixed formatting | Joseph Kalfus |
|  |  |  |  |

Table of Contents

[1. Introduction 5](#_Toc87026935)

[1.1 Purpose 5](#_Toc87026936)

[1.2 Application Overview 5](#_Toc87026937)

[1.3 Intended Audience 5](#_Toc87026938)

[1.4 Technical Project Stakeholders 5](#_Toc87026939)

[2. Type of Testing 6](#_Toc87026940)

[2.1 General Unit Testing 6](#_Toc87026941)

[2.2 Integration Testing 7](#_Toc87026942)

[3. Test Summary 7](#_Toc87026943)

[3.1 Unit Testing 7](#_Toc87026944)

[3.2 User Acceptance Testing 9](#_Toc87026945)

[3.2.1 Responds to the User Saying: “Hello” 9](#_Toc87026946)

[3.2.2 Responds to the User Saying: “How are you?” 11](#_Toc87026947)

[3.2.3 Responds to the User Saying: “What is your name?” 12](#_Toc87026948)

[3.2.4 Responds to the User Giving a Compliment 13](#_Toc87026949)

[3.2.5 Responds to the User Giving an Insult 14](#_Toc87026950)

[3.2.6 Responds to the User Saying: “Thank You” 15](#_Toc87026951)

[3.2.7 Responds to the User Saying: “Goodbye” 16](#_Toc87026952)

[3.2.8 Navigates User to Calendar Screen 17](#_Toc87026953)

[3.2.9 Navigates User to Checklist Screen 18](#_Toc87026954)

[3.2.10 Navigates User to Help Screen 19](#_Toc87026955)

[3.2.11 Navigates User to Menu Screen 20](#_Toc87026956)

[3.2.12 Navigates User to Notes Screen 21](#_Toc87026957)

[3.2.13 Navigates User to Notifications Screen 22](#_Toc87026958)

[3.2.14 Navigates User to Settings Screen 23](#_Toc87026959)

[3.2.15 Navigates User to Trigger Screen 24](#_Toc87026960)

[3.2.16 Creates a Note 25](#_Toc87026961)

[3.2.17 Creates an Event 26](#_Toc87026962)

[3.2.18 Creates a Recurring Event 27](#_Toc87026963)

[3.2.19 Answers the User’s Question 28](#_Toc87026964)

[4. Item Not Tested 29](#_Toc87026965)

[5. Defects Identified 29](#_Toc87026966)

[6. Exit Criteria 29](#_Toc87026967)

[7. Appendices 29](#_Toc87026968)

[7.1 Credits & Contributions 29](#_Toc87026969)

# 1. Introduction

## 1.1 Purpose

The purpose of this test report is to evaluate if the developed software satisfied all targeted requirements. The test report shows the objective of testing and results of the Natural Language Understanding (NLU) module developed for Memory Magic Application. The test report will help all stakeholders to see the result and guide the development team on a decision to release the software.

## 1.2 Application Overview

The application is developed with the objective of developing an NLU module that is seamlessly integrated into the Memory Magic Application. The application will be used by people with a short-term memory loss (STM). The mobile application will save notes and calendars and will provide answers for text and voice enquires by searching from saved calendars and notes.

## 1.3 Intended Audience

The objective of this test document is to explain the testing activities of the NLU module which integrated with the Memory Magic application. This document is intended for developers, project managers, business analysts, the testing team and end users to better understand the system performance.

## 1.4 Technical Project Stakeholders

**Table 1**

*Project Stakeholders*

|  |  |
| --- | --- |
| Name | Role |
| Dr. Mir Assadullah | Stakeholder (Project Owner) |
| Roy Gordon | Stakeholder (Project Advisor) |
| Endalkachew Girma | Overall Project Manager |
| Obinna Okonkwo | (PM) Project Manager |
| Andrew Rohn | Software Developer |
| Eskedar Endashw | Database Developer |
| Firehiwot Chari | Tester |
| Joseph Kalfus | System Analyst |
| Leelakrishnan Subramaniam | Software Developer |
| Malik Webster | Software Developer |

# 2. Type of Testing

The unit and integration tests will be using a white box approach to testing. User integration testing will be done within the smartphone application to document queries and responses from a typical user’s perspective.

## 2.1 General Unit Testing

These unit tests were created before the start of the development cycle (previous milestone). The tests were executed either within the Amazon Lex Console, an actual iPhone or Android phone, or within the Android emulator.

**Table 2**

*General Unit Tests and Results*

|  |  |  |
| --- | --- | --- |
| General Tests: Application Help | Amazon Lex Console | |
| 1. “How do I make a note?”  Success case: Display “Let me help you with that.” in the chat window. | Passed | |
| 2. “How do I change choose a different language?”  Success case: Direct the user to the help screen for the app feature. | Passed | |
| App Navigation | iPhone | Android |
| 3. “Take me to the main menu.”  Success case: Display “Taking you to the Menu screen.” in the chat window. | Passed | Passed |
| 4. “I want to see my notes.”  Success case: Direct the user to the screen identified from the text. | Passed | Passed |
| Answering | | |
| 5. “How’s it going?”  Success case: Take to the appropriate screen and display it in the chat window. | Passed | Passed |
| Creating a note | | |
| 6. “I need to pick up eggs tomorrow.”  Success case: Create a new note with what is given.  Display “I created a note for you.” in the chat window.  (Optional) Direct the user to the notes screen. | Passed | Passed |
| User Location | | |
| 7. “Where am I?”  Success case: Determine the user’s location via an API or library.  Either display their location (e.g., open Google Maps) or state their location (e.g., “You are at Park Place in Townsville, CA.”). | Passed | Passed |

## 2.2 Integration Testing

|  |  |  |
| --- | --- | --- |
| Integration Tests | iPhone Emulator | Android Emulator |
| 1. Application handles successful response from NLU API.  Success case: Obtain desired response. | See Below | See Below |
| 2. Application handles all non-success responses from NLU API.  Success case: Error is handled gracefully. | See Below | See Below |

# 3. Test Summary

## 3.1 Unit Testing

The following unit tests were specified in the original requirements document and are listed here with its related status. Unit tests are documented in **Table 3**.

**Table 3**

*More Specific NLU Unit Tests*

|  |  |
| --- | --- |
|  | **Unit Test Construction Status** |
| 1. **Greeting Test**   “**hello”** is passedas input, **I'm fine. Thanks**. Is obtained as response from NLUResponse. | Verified |
| 1. **What is your name Test**   “**What is your name”** is passedas input, “**You can call me Sam.**” Is obtained as response from NLUResponse. | Verified |
| 1. **I like you Test**   “**I like you”** is passedas input, “**Thanks.**” Is obtained as response from NLUResponse. | Verified |
| 1. **I hate you Test**   “**I hate you”** is passedas input, “**If you don't have anything nice to say, don't say anything at all.**” Is obtained as response from NLUResponse. | Verified |
| 1. **Thank you Test**   “**Thank you”** is passedas input, “**I'm happy to help.**” Is obtained as response from NLUResponse. | Verified |
| 1. **Goodbye Test**   “**goodbye”** is passedas input, “**Bye.**” Is obtained as response from NLUResponse. | Verified |
| 1. **I want to see my events Test**   “**I want to see my events”** is passedas input, “**calendar**” Is obtained as response from NLUResponse. | Verified |
| 1. **Take me to the home page Test**   “**Take me to the home page”** is passedas input, “**menu**” Is obtained as response from NLUResponse. | Verified |
| 1. **I want to make a note Test**   “**I want to make a note”** is passedas input, “**notes.**” Is obtained as response from NLUResponse. | Verified |
| 1. **I want to check my notifications Test**   “**I want to check my notifications”** is passedas input, “**notifications**” Is obtained as response from NLUResponse. | Verified |
| 1. **I need to adjust my settings Test**   “**I need to adjust my settings”** is passedas input, “**settings**” Is obtained as response from NLUResponse. | Verified |
| 1. **I want to change my trigger phrase Test**   “**I want to change my trigger phrase”** is passedas input, “**ActionType.CREATE\_NOTE.**” Is obtained as response from NLUResponse’s ActionType. | Verified |
| 1. **I have a meeting tomorrow at 6pm Test**   “**I have a meeting tomorrow at 6pm”** is passedas input, “**meeting.**” Is obtained as response from NLUResponse’s eventType. | Verified |

## 3.2 User Acceptance Testing

### 3.2.1 Responds to the User Saying: “Hello”

**Table 4**

*Responds to the User Saying: “Hello”*

|  |  |
| --- | --- |
| **Test Name** | Responds to the User Saying: “Hello” |
| **Test Type** | User Acceptance Testing |
| **Test Date** | November 1st, 2021 |
| **Tester** | Andrew Rohn |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 |
| **Emulator** | Android Pixel 4 XL API 30 |
| **Steps** | 1. User taps the mic icon in the app and says something like: “hello” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “Hello” 4. The NLU Module returns text that states something like: “Nice to meet you.” 5. The app displays the text and does text-to-voice |
| **Expected Result** | App displays and says something like: “Nice to meet you.” |
| **Issues** | None |
| **Status** | Passed |
| **Screenshots** | A screenshot of a phone  Description automatically generated with medium confidence |

### 3.2.2 Responds to the User Saying: “How are you?”

**Table 5**

*Responds to the User Saying: “How are you?”*

|  |  |
| --- | --- |
| **Test Name** | Responds to the User Saying: “How are you?” |
| **Test Type** | User Acceptance Testing |
| **Test Date** | November 1st, 2021 |
| **Tester** | Andrew Rohn |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 |
| **Emulator** | Android Pixel 4 XL API 30 |
| **Steps** | 1. User taps the mic icon in the app and says something like: “how are you” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “HowAreYou” 4. The NLU Module returns text that states something like: “I’m doing great. Thanks for asking.” 5. The app displays the text and does text-to-voice |
| **Expected Result** | App displays and says something like: “I’m doing great. Thanks for asking.” |
| **Issues** | None |
| **Status** | Passed |
| **Screenshots** | Graphical user interface, text, application, chat or text message  Description automatically generated |

### 3.2.3 Responds to the User Saying: “What is your name?”

**Table 6**

*Responds to the User Saying: “What is your name?”*

|  |  |
| --- | --- |
| **Test Name** | Responds to the User Saying: “What is your name?” |
| **Test Type** | User Acceptance Testing |
| **Test Date** | November 1st, 2021 |
| **Tester** | Andrew Rohn |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 |
| **Emulator** | Android Pixel 4 XL API 30 |
| **Steps** | 1. User taps the mic icon in the app and says something like: “what is your name” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “WhatIsYourName” 4. The NLU Module returns text that states something like: “My name is Sam.” 5. The app displays the text and does text-to-voice |
| **Expected Result** | App displays and says something like: “My name is Sam.” |
| **Issues** | None |
| **Status** | Passed |
| **Screenshots** | A screenshot of a phone  Description automatically generated with medium confidence |

### 3.2.4 Responds to the User Giving a Compliment

**Table 7**

*Responds to the User Giving a Compliment*

|  |  |
| --- | --- |
| **Test Name** | Responds to the User Giving a Compliment |
| **Test Type** | User Acceptance Testing |
| **Test Date** | November 1st, 2021 |
| **Tester** | Andrew Rohn |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 |
| **Emulator** | Android Pixel 4 XL API 30 |
| **Steps** | 1. User taps the mic icon in the app and says something like: “I like you” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “Compliment” 4. The NLU Module returns text that states something like: “Thank you.” 5. The app displays the text and does text-to-voice |
| **Expected Result** | App displays and says something like: “Thank you.” |
| **Issues** | None |
| **Status** | Passed |
| **Screenshots** | Graphical user interface, text, application, chat or text message  Description automatically generated |

### 3.2.5 Responds to the User Giving an Insult

**Table 8**

*Responds to the User Giving an Insult*

|  |  |
| --- | --- |
| **Test Name** | Responds to the User Giving an Insult |
| **Test Type** | User Acceptance Testing |
| **Test Date** | November 1st, 2021 |
| **Tester** | Andrew Rohn |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 |
| **Emulator** | Android Pixel 4 XL API 30 |
| **Steps** | 1. User taps the mic icon in the app and says something like: “I hate you” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “Insult” 4. The NLU Module returns text that states something like: “I’m sorry you feel that way.” 5. The app displays the text and does text-to-voice |
| **Expected Result** | App displays and says something like: “I’m sorry you feel that way.” |
| **Issues** | None |
| **Status** | Passed |
| **Screenshots** | Graphical user interface, text, application, chat or text message  Description automatically generated |

### 3.2.6 Responds to the User Saying: “Thank You”

**Table 9**

*Responds to the User Saying: “Thank You”*

|  |  |
| --- | --- |
| **Test Name** | Responds to the User Saying: “Thank You” |
| **Test Type** | User Acceptance Testing |
| **Test Date** | November 1st, 2021 |
| **Tester** | Andrew Rohn |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 |
| **Emulator** | Android Pixel 4 XL API 30 |
| **Steps** | 1. User taps the mic icon in the app and says something like: “thank you” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “ThankYou” 4. The NLU Module returns text that states something like: “You’re welcome.” 5. The app displays the text and does text-to-voice |
| **Expected Result** | App displays and says something like: “You’re welcome.” |
| **Issues** | None |
| **Status** | Passed |
| **Screenshots** | Graphical user interface, text, application, chat or text message  Description automatically generated |

### 3.2.7 Responds to the User Saying: “Goodbye”

**Table 10**

*Responds to the User Saying: “Goodbye”*

|  |  |
| --- | --- |
| **Test Name** | Responds to the User Saying: “Goodbye” |
| **Test Type** | User Acceptance Testing |
| **Test Date** | November 1st, 2021 |
| **Tester** | Andrew Rohn |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 |
| **Emulator** | Android Pixel 4 XL API 30 |
| **Steps** | 1. User taps the mic icon in the app and says something like: “goodbye” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “Goodbye” 4. The NLU Module returns text that states something like: “Goodbye.” 5. The app displays the text and does text-to-voice |
| **Expected Result** | App displays and says something like: “Goodbye.” |
| **Issues** | None |
| **Status** | Passed |
| **Screenshots** | A screenshot of a phone  Description automatically generated with medium confidence |

### 3.2.8 Navigates User to Calendar Screen

**Table 11**

*Navigates User to Calendar Screen*

|  |  |  |
| --- | --- | --- |
| **Test Name** | Navigates User to Calendar Screen | |
| **Test Type** | User Acceptance Testing | |
| **Test Date** | November 1st, 2021 | |
| **Tester** | Andrew Rohn | |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 | |
| **Emulator** | Android Pixel 4 XL API 30 | |
| **Steps** | 1. User taps the mic icon in the app and says something like: “I want to see my events” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “AppNavCalendar” 4. The NLU Module instructs the app to direct the user to the calendar screen 5. The app directs the user to the calendar screen | |
| **Expected Result** | App directs the user to the calendar screen | |
| **Issues** | None | |
| **Status** | Passed | |
| **Screenshots** | Graphical user interface, text, application, chat or text message  Description automatically generated | Graphical user interface, text, application  Description automatically generated |

### 3.2.9 Navigates User to Checklist Screen

**Table 12**

*Navigates User to Checklist Screen*

|  |  |  |
| --- | --- | --- |
| **Test Name** | Navigates User to Checklist Screen | |
| **Test Type** | User Acceptance Testing | |
| **Test Date** | November 1st, 2021 | |
| **Tester** | Andrew Rohn | |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 | |
| **Emulator** | Android Pixel 4 XL API 30 | |
| **Steps** | 1. User taps the mic icon in the app and says something like: “show me my checklist” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “AppNavChecklist” 4. The NLU Module instructs the app to direct the user to the checklist screen 5. The app directs the user to the checklist screen | |
| **Expected Result** | App directs the user to the checklist screen | |
| **Issues** | None | |
| **Status** | Passed | |
| **Screenshots** | Graphical user interface, text, application, chat or text message  Description automatically generated | Graphical user interface, application  Description automatically generated |

### 3.2.10 Navigates User to Help Screen

**Table 13**

*Navigates User to Help Screen*

|  |  |  |
| --- | --- | --- |
| **Test Name** | Navigates User to Help Screen | |
| **Test Type** | User Acceptance Testing | |
| **Test Date** | November 1st, 2021 | |
| **Tester** | Andrew Rohn | |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 | |
| **Emulator** | Android Pixel 4 XL API 30 | |
| **Steps** | 1. User taps the mic icon in the app and says something like: “I need help with the app” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “AppNavHelp” 4. The NLU Module instructs the app to direct the user to the help screen 5. The app directs the user to the help screen | |
| **Expected Result** | App directs the user to the help screen | |
| **Issues** | None | |
| **Status** | Passed | |
| **Screenshots** | A screenshot of a phone  Description automatically generated with medium confidence | Graphical user interface, application  Description automatically generated |

### 3.2.11 Navigates User to Menu Screen

**Table 14**

*Navigates User to Menu Screen*

|  |  |  |
| --- | --- | --- |
| **Test Name** | Navigates User to Menu Screen | |
| **Test Type** | User Acceptance Testing | |
| **Test Date** | November 1st, 2021 | |
| **Tester** | Andrew Rohn | |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 | |
| **Emulator** | Android Pixel 4 XL API 30 | |
| **Steps** | 1. User taps the mic icon in the app and says something like: “take me to the main menu” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “AppNavMenu” 4. The NLU Module instructs the app to direct the user to the menu screen 5. The app directs the user to the menu screen | |
| **Expected Result** | App directs the user to the menu screen | |
| **Issues** | None | |
| **Status** | Passed | |
| **Screenshots** | A screenshot of a phone  Description automatically generated with medium confidence | A screenshot of a cell phone  Description automatically generated with medium confidence |

### 3.2.12 Navigates User to Notes Screen

**Table 15**

*Navigates User to Notes Screen*

|  |  |  |
| --- | --- | --- |
| **Test Name** | Navigates User to Notes Screen When Prompted | |
| **Test Type** | User Acceptance Testing | |
| **Test Date** | November 1st, 2021 | |
| **Tester** | Andrew Rohn | |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 | |
| **Emulator** | Android Pixel 4 XL API 30 | |
| **Steps** | 1. User taps the mic icon in the app and says something like: “I want to make a note” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “AppNavNotes” 4. The NLU Module instructs the app to direct the user to the notes screen 5. The app directs the user to the notes screen | |
| **Expected Result** | App directs the user to the notes screen | |
| **Issues** | None | |
| **Status** | Passed | |
| **Screenshots** | Graphical user interface, text, application, chat or text message  Description automatically generated | Background pattern  Description automatically generated with medium confidence |

### 3.2.13 Navigates User to Notifications Screen

**Table 16**

*Navigates User to Notifications Screen*

|  |  |  |
| --- | --- | --- |
| **Test Name** | Navigates User to Notifications Screen | |
| **Test Type** | User Acceptance Testing | |
| **Test Date** | November 1st, 2021 | |
| **Tester** | Andrew Rohn | |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 | |
| **Emulator** | Android Pixel 4 XL API 30 | |
| **Steps** | 1. User taps the mic icon in the app and says something like: “I want to check my notifications” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “AppNavNotifications” 4. The NLU Module instructs the app to direct the user to the notifications screen 5. The app directs the user to the notifications screen | |
| **Expected Result** | App directs the user to the notifications screen | |
| **Issues** | None | |
| **Status** | Passed | |
| **Screenshots** | A screenshot of a phone  Description automatically generated with medium confidence | Graphical user interface  Description automatically generated with medium confidence |

### 3.2.14 Navigates User to Settings Screen

**Table 17**

*Navigates User to Settings Screen*

|  |  |  |
| --- | --- | --- |
| **Test Name** | Navigates User to Settings Screen | |
| **Test Type** | User Acceptance Testing | |
| **Test Date** | November 1st, 2021 | |
| **Tester** | Andrew Rohn | |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 | |
| **Emulator** | Android Pixel 4 XL API 30 | |
| **Steps** | 1. User taps the mic icon in the app and says something like: “I need to adjust my settings” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “AppNavSettings” 4. The NLU Module instructs the app to direct the user to the settings screen   The app directs the user to the settings screen | |
| **Expected Result** | App directs the user to the settings screen | |
| **Issues** | None | |
| **Status** | Passed | |
| **Screenshots** | A screenshot of a phone  Description automatically generated with medium confidence | Graphical user interface, application  Description automatically generated |

### 3.2.15 Navigates User to Trigger Screen

**Table 18**

*Navigates User to Trigger Screen*

|  |  |  |
| --- | --- | --- |
| **Test Name** | Navigates User to Trigger Screen | |
| **Test Type** | User Acceptance Testing | |
| **Test Date** | November 1st, 2021 | |
| **Tester** | Andrew Rohn | |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 | |
| **Emulator** | Android Pixel 4 XL API 30 | |
| **Steps** | 1. User taps the mic icon in the app and says something like: “I want to change my trigger phrase” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “AppNavTrigger” 4. The NLU Module instructs the app to direct the user to the trigger screen 5. The app directs the user to the trigger screen | |
| **Expected Result** | App directs the user to the trigger screen | |
| **Issues** | None | |
| **Status** | Passed | |
| **Screenshots** | A screenshot of a phone  Description automatically generated with medium confidence | Graphical user interface, application  Description automatically generated |

### 3.2.16 Creates a Note

**Table 19**

*Creates a Note*

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Name** | Creates a Note | | |
| **Test Type** | User Acceptance Testing | | |
| **Test Date** | November 1st, 2021 | | |
| **Tester** | Andrew Rohn | | |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 | | |
| **Emulator** | Android Pixel 4 XL API 30 | | |
| **Steps** | 1. User taps the mic icon in the app and says something like: “I have a son named David” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “CreateNote” 4. The NLU Module instructs the app to ask if the user wants to create a note 5. If the user says yes, the app creates a note containing the information | | |
| **Expected Result** | App asks the user if they want to create a note. If the user says yes, the app creates a note containing the information. | | |
| **Issues** | None | | |
| **Status** | Passed | | |
| **Screenshots** | Graphical user interface, text, application, chat or text message  Description automatically generated | Graphical user interface, text, application, chat or text message  Description automatically generated | Text  Description automatically generated with low confidence |

### 3.2.17 Creates an Event

**Table 20**

*Creates an Event*

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Name** | Creates an Event (A Note with a Date & Time) | | |
| **Test Type** | User Acceptance Testing | | |
| **Test Date** | November 1st, 2021 | | |
| **Tester** | Andrew Rohn | | |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 | | |
| **Emulator** | Android Pixel 4 XL API 30 | | |
| **Steps** | 1. User taps the mic icon in the app and says something like: “I have a meeting tomorrow at 4 p.m.” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “CreateEvent” 4. The NLU Module instructs the app to ask if the user wants to create a note 5. If the user says yes, the app creates a note containing the information including a date and time 6. The app adds the event to the user’s calendar | | |
| **Expected Result** | App asks the user if they want to create a note. If the user says yes, the app creates a note containing the information including a date and time. The event is added to the user’s calendar. | | |
| **Issues** | None | | |
| **Status** | Passed | | |
| **Screenshots** | Graphical user interface, text, application, chat or text message  Description automatically generated | Graphical user interface, text, application, chat or text message  Description automatically generated | Graphical user interface  Description automatically generated with low confidence |

### 3.2.18 Creates a Recurring Event

**Table 21**

*Creates a Recurring Event*

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Name** | Creates a Recurring Event (A Note with a Recurring Period) | | |
| **Test Type** | User Acceptance Testing | | |
| **Test Date** | November 1st, 2021 | | |
| **Tester** | Andrew Rohn | | |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 | | |
| **Emulator** | Android Pixel 4 XL API 30 | | |
| **Steps** | 1. User taps the mic icon in the app and says something like: “I need to brush my teeth every day at 8 a.m.” 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “CreateRecurringEvent” 4. The NLU Module instructs the app to ask if the user wants to create a note 5. If the user says yes, the app creates a note containing the information including a recurring period 6. The app adds the recurring event to the user’s checklist | | |
| **Expected Result** | App asks the user if they want to create a note. If the user says yes, the app creates a note containing the information including a recurring period. The recurring event is added to the user’s checklist. | | |
| **Issues** | None | | |
| **Status** | Passed | | |
| **Screenshots** | Graphical user interface, text, application, chat or text message  Description automatically generated | Graphical user interface, text, application, chat or text message  Description automatically generated | Graphical user interface  Description automatically generated with low confidence |

### 3.2.19 Answers the User’s Question

**Table 22**

*Answers the User’s Question*

|  |  |
| --- | --- |
| **Test Name** | Answers the User’s Question |
| **Test Type** | User Acceptance Testing |
| **Test Date** | November 1st, 2021 |
| **Tester** | Andrew Rohn |
| **Software** | Android Studio Arctic Fox 2020.3.1 Patch 3  Flutter 2.5.1  Dart 2.14.2 |
| **Emulator** | Android Pixel 4 XL API 30 |
| **Steps** | 1. User taps the mic icon in the app and asks a question 2. The user’s voice is transcribed from voice to text and passed to the NLU Module 3. The NLU Module identifies the intent of the user’s speech as “SearchNotes” 4. The NLU Module searches the user’s notes to find an answer to the question 5. The NLU Module returns the most likely answer 6. The app displays the answer and does text-to-voice |
| **Expected Result** | App displays and says the answer to the user’s question |
| **Issues** | None |
| **Status** | Passed |
| **Screenshots** | A screenshot of a phone  Description automatically generated with medium confidence |

# 4. Item Not Tested

The App pages was tested by Mesmerize team and was out of scope for this application. AppHelp intents are not tested as part of User Acceptance Testing since the app team did not add functionality in the app to support these intents.

# 5. Defects Identified

A defect was found in user accept testing in which when asked “I need to buy fruits”, the NLU service returned with “Sorry I could not understand”. This defect is a low severity as it does not affect the overall function of the application, as the events can be added to lex and can be extensible.

# 6. Exit Criteria

The exit criteria for the completion of testing are the following:

* That all user acceptance testing has been completed and any issues are reported to the development team for correction.
* Unit testing is added for NLU service with all the features tested in User Acceptance testing.
* Any issues found in testing are documented.
* No other test cases are determined as necessary by the team.

# 7. Appendices

## 7.1 Credits & Contributions

Below are the members that contributed or will contribute to the development of this application in alphabetical order by last name:

* Aboagye, Prince Antwi
* Ahmed, Christian
* Avery, Daniel
* Baileys, Alec
* Balbi, Teresa
* Ballo, Nicholas
* Bell, Kevin
* Benavides, Raul
* Broggin, Chauntika
* Cabrales, Andreas
* Chari, Firehiwot
* Crumb, Karen
* Cruz Jimenez, Christian
* Cushing, Benjamin
* Drammeh, Mod
* Dunning, Maddison
* Endashw, Eskedar
* Famudehin, Ayodeji
* Girma, Endalkachew
* Gordon, Roy
* Jena, Debashis
* Johnson, Austin
* Johnson, Rebecca
* Kalfus, Joseph
* Kelly, Shawn
* Kimbi, Didimus
* Le, Michael
* Lockhart, Johnny
* Mesfin, Elshaday
* Monfort, Michelle
* Muwan, Presley
* Okonkwo, Obinna
* Olshansky, Mitchell
* Puschinsky, Tyler
* Rohn, Andrew
* Salim, Sami
* Setiawan, Matthew
* Sevilla, Damion
* Soeurt, Jeroen
* Subramanian, Leela
* Webster, Malik
* Wilson, Robert
* Worku, Addisu
* Dr. Mir Mohammed Assadullah