**MediPal**

Master Test Plan

Version 1.1

Revision History

| **Date** | **Version** | **Description** | **Author** |
| --- | --- | --- | --- |
| 21/07/2025 | 1.0 | Filled in introduction, test items, hardware requirements, software requirements, environment requirements and personnel responsibilities. | Nguyễn Kiến Hào |
| 01/08/2025 | 1.1 | Elaborated more on environment needs and added a section dedicated to Key features intended for testing. | Nguyễn Kiến Hào |
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**Master Test Plan**

# Introduction

* This test plan document details the testing procedure performed within the software “MediPal” in order to inspect and benchmark the performance of the software “MediPal”.
* This document outlines the tools and environment necessary for software testing, so all involved team members / developers can reference this in order to conduct testing procedures.
* Within this document include:
  + Targeted items/features of the software for testing
  + Necessary tools and environment setup for testing
  + Personnel responsible for testing management and conductions

# Target Test Items

* **Functionality**: see if most, if not all components pertaining to intended use cases within the application have been sufficiently implemented.
* **User interface**: see if the user’s interactive interface is robust and responsive. Plus, evaluate overall appearance, theme and user friendliness.
* **Securit**y: evaluate effectiveness of security measures intended to secure and protect user’s data stored within the dedicated database.
* **Performance**: benchmark application’s overall speed and memory usage to aid in future optimization.

# Environmental Needs

* This section describes all necessary non-human resources that make up the environment for testing the MediPal application.

## Hardware Requirements

* **PC or Laptop:** most of the code is executed and debugged on a PC or Laptop via Android Studio software. A PC or Laptop, either MacBook or Windows, connected to the Internet is sufficient to run necessary tools for testing.

## Software in the Test Environment

The following base software elements are required in the test environment for this *Test Plan*.

| **Software Name** | **Purpose** | **Version** | **Type and Other Notes** |
| --- | --- | --- | --- |
| Windows | Run debugging program | 11 | Operating System |
| Android Studio | Program debugging | Latest | Application |
| Github | Development progress tracking | Latest | Website |
|  |  |  |  |
|  |  |  |  |

## Productivity and Support Tools

The following tools will be employed to support the test process for this *Test Plan*.

| **Tool Category or Type** | **Tool Brand Name** | **Vendor or In-house** | **Version** |
| --- | --- | --- | --- |
| Test Case List and Defect Tracking | Google Sheets | Google | Latest |

# Responsibilities, Staffing, and Training Needs

## People and Roles

This table shows the staffing assumptions for the test effort.

| **Human Resources** | | |
| --- | --- | --- |
| **Role** | **Minimum Resources Recommended**  **(number of full-time roles allocated)** | **Specific Responsibilities or Comments** |
| Test Manager | Nguyễn Kiến Hào  Trần Anh Khoa | Provides management oversight.  Responsibilities include:   * planning and logistics * agree mission * identify motivators * acquire appropriate resources * present management reporting * advocate the interests of test * evaluate effectiveness of test effort |
| Tester | Trần Hữu Lượng  Nguyễn Công Toàn | Implements and executes the tests.  Responsibilities include:   * implement tests and test suites * execute test suites * log results * analyze and recover from test failures * document incidents |
| Test System Administrator | Trần Anh Khoa  Trần Hữu Lượng | Ensures test environment and assets are managed and maintained.  Responsibilities include:   * administer test management system * install and support access to, and recovery of, test environment configurations and test labs |

1. **Key features for testing**

**5.1. Medication management**

* **UC05. Create medication schedule as primary user**: check if adding a medication to an existing (or not) list of medications works as intended. Main input data for a typical medication item includes: medication name, dosage, frequency of notification reminder and extra notes.
* Edit: editing a medication item’s already existing data.
* Deletion: deleting the data and removing the medication item from the list.
* **UC08. Record medication dose as Primary User:** check medication response functionality, where the user has to respond to a medication reminder with “Take Now”, “Skip” or “Snooze”.

**5.2. Appointment management**

* **UC06. Create appointment schedule as primary user**: check if adding an appointment to an existing (or not) list of appointments works as intended. Main input data for a typical appointment item includes: appointment title, doctor’s name, location/address, date, time, reason for visit and extra notes.
* Edit: editing an appointment item’s already existing data.
* Deletion: deleting the data and removing the appointment item from the list.

**5.3. Health reminder management**

* **UC07. Create healthcare reminder as primary user**: check if adding a healthcare reminder to an existing (or not) list of reminders works as intended. Main input data for a typical reminder item includes: reminder type, frequency of notification reminder and extra notes.
* Edit: editing a reminder item’s already existing data.
* Deletion: deleting the data and removing the reminder item from the list.

**5.4. Notification system**

* Check if notification reminders set for medications, appointments and healthcare reminders are delivered at the correct time and date for all items of their respective categories.
* **UC10. Customize reminders as Primary User:** Check customizability of notifications, which include sound, vibration patterns and notification lifetime.

**5.5. History log**

* **UC09. View history log as Primary User:** Test if history log recording medications, appointments and healthcare reminders accurately display recent past notifications and reminders.

**5.6. Profile management**

* Check if all medication, appointment, healthcare reminder and miscellaneous data is linked to individual profiles, and is able to be managed by the user within the application.
* **UC04.2. Switch Profile:** Test profile switching functionality and if data is displayed and saved and displayed correctly across multiple profiles.
* **UC04.1. Manage Profile as Primary User**: allow users to update existing profile information.
* **UC13. Add Health Profile Information:** check health-specific data and information pertaining to each individual user profile, which include allergies, conditions, emergency contacts and so on.

**5.7. Account management**

* **Register/Login** **as Primary User/Caregiver** (**UC01, UC02, UC14, UC15**): check register and login functionality as either a caregiver or a regular user. Make sure methods of authentication and verification work as intended.
* Check security of stored data for accounts, especially emails and passwords which need careful protection within the database.
* **Logout of Primary User/Caregiver (UC03, UC16):** check if all information and data has been saved into the database and not visible in application after logout.

**5.8. Caregiver**

* **UC12. Manage Caregiver access:** check caregiver access functionality, where the Primary User can invite a Caregiver to access their schedule via email in Settings.
* **UC17. Accept/Decline Invitation as Caregiver:** check if Caregiver can receive and respond to invitation email from Primary User.
* **UC18. View Shared Schedule as Caregiver:** check shared schedule functionality where caregiver can view the medication and appointment schedule created by the primary user.
* **UC19. Receive Missed Dose Alert as Caregiver:** check if missed dose notification is sent to caregiver account in the event that the primary user has not responded to medication reminder.