Group 2

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

Table of Contents

Master Test Plan

1. 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

2. 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.

3. Environmental Needs

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

3.1 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.

3.2 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

3.3 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

4.   Responsibilities, Staffing, and Training Needs

4.1   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

5. 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.