

Dietaide

Planning: Master Test Plan

Instruction

This document is used to define the details of the master test plan. Once the test plan is outlined, the document must be reviewed and approved by the lead technical representative on the project as well as the lead business representative on the project. If anything related to the test plan changes during the execution and testing phase of the project, this document should be updated and re-approved by both parties.

Test Scope

The scope of testing for Dietaide includes all the business processes related to providing and accessing appropriate diets based on diagnosis for patients and health professionals. This includes testing the functionality for patients to login to the system with their hospital profile, select specific diagnoses from their hospital record, and upload them to the system. It also includes testing the functionality for doctors and other medical professionals to access patients' profile and medical record within the hospital, generate diet recommendations based on the patient's selected diagnoses, review and make adjustments and/or other recommendations, and make approvals. Additionally, the testing scope covers the functionality for patients to view all generated diets attached to their own profile, and for direct patient-doctor communication on diet recommendations through chat channels.

The types of testing required for this project include integration testing, user acceptance testing, and regression testing. Integration testing will ensure that all the system components work together as expected, including the database that stores diagnosis-dietary correlations and patient profiles, and the user interface that allows patients and health professionals to interact with the system. User acceptance testing will ensure that the system meets the requirements and expectations of both patients and health professionals, and is easy to use and understand. Regression testing will ensure that any changes or updates to the system do not introduce new issues or affect existing functionality.

Unit testing is *not* in the scope of this testing phase of the project and will be performed by the development team. User certification testing is *also not* in scope and will be performed by the hospital's Health Information Management team.

Test Features

<u>BR#</u>	<u>Feature</u>	<u>Responsible party or groups</u>
1	Patient login functionality	Patients, Health professionals, IT, Testing team
2	Upload and select diagnoses functionality	Patients, IT, Testing team
3	Access patient profile and medical record functionality	Doctors, medical professionals, IT, Testing team
4	Diagnosis-dietary correlation database functionality	IT, Testing team

5	Automatic diet recommendation generation functionality	IT, Testing team
6	Review and make adjustments and/or other recommendations functionality	Doctors, medical professionals, IT, Testing team
7	Patient approval functionality	Patients, Health professionals, IT, Testing team
8	View generated diets functionality	Patients, IT, Testing team

This table lists the features that will be tested within the scope of the test plan, along with the responsible parties or groups involved in the testing activities. Each row represents a specific feature, with the associated BR number and a brief description. The rightmost column lists the responsible parties or groups, which includes patients, health professionals, IT, and the testing team.

Test Inputs/Outputs

This is a description of the inputs that will be used to assist with the testing effort and a list of the outputs that will be delivered from the testing effort.

Test Inputs	Test Outputs
System Requirement Specifications (SRS) for Dietaide	Test results for Dietaide
Use cases for Dietaide	Defect log for Dietaide
Test cases and scenarios for Dietaide	Issues log for Dietaide
Patient profiles and medical records specific to the hospital where Dietaide is being implemented	Change request log for Dietaide

Database of diagnosis-dietary correlations for Dietaide	Test completion report for Dietaide
	User acceptance report for Dietaide
	Regression test report for Dietaide
	System acceptance report for Dietaide
	Approved diets attached to patient profiles in Dietaide

Test Strategy

This is a description of the recommended testing approach for this project. This describes “how” the test items and features will be tested.

Test Type	Description	Comment
Integration Test	This type tests the end-to-end functionality of the platform, including the login process, uploading and selecting diagnoses, automatic diet recommendations, and doctor approvals.	Testing should include verifying that the diagnosis-dietary correlation database is accurately used to generate appropriate diet recommendations, and ensuring that the platform is secure and protected against common vulnerabilities.
User Acceptance Test	Performed by patients and health professionals, this test verifies that the platform is user-friendly and meets the functional requirements.	The test should focus on testing the user interface, including selecting diagnoses, viewing generated diets, and communicating with doctors through chat channels.
Regression Test	This test verifies that any untouched functionality has not been adversely impacted by the project-related work.	Testing should include verifying that existing features and functionalities continue to work as expected.

Performance Test	This test verifies that the platform performs well under expected user loads.	Testing should include verifying the platform's response time, data processing speed, and system stability under varying levels of user loads.
Security Test	This test verifies that the platform is secure and protected against common security vulnerabilities.	Testing should include verifying that user data is properly encrypted and that user authentication and authorization mechanisms are functioning properly.

Test Environment (tools, system, databases)

This is a list of the testing tools, systems, and databases.

Tools	Description	Version
Pytest	Testing framework for Python	6.2.5
Django	High-level Python web framework	3.2.8
Git	Version control system for source code management	2.33.1

System	Description
Local	Developer's local environment
Staging	Test environment to test changes before production
Production	Live environment for the app
Database	Description
NoSQL	Lightweight and easy-to-use database for local testing

Test Roles and Responsibilities

This is a list of the testing roles and responsibilities.

Resource	Role	Responsibility
Ziad Hassan	Test Manager	- Provides overall direction for testing activities.
		- Manages test planning, scheduling, and execution.
		- Communicates test results to stakeholders.
Chunting Liu	Test Designer	- Develops and maintains test strategy and test plan.
		- Identifies and prioritizes test cases.
		- Evaluates effectiveness of test effort.
Ziyad Fawzy	Test Engineer	- Develops and executes test cases.
		- Logs defects and tracks their status.

		- Reports test results and progress to Test Manager.
Kaile Chu	Test System Administrator	- Manages test environment and test assets.
		- Ensures the availability and readiness of test environment.
		- Provides technical support for test execution.

Test Milestones

This is a list of the critical test milestone dates. Be sure to include these dates in the overall project plan.

Milestone	Description	Date
Test Plan Complete	Completion of test plan document.	April 22, 2023
Test Environment Ready	Test environment setup completed.	April 24, 2023
Integration Testing	Integration testing of the entire platform.	April 26, 2023
User Acceptance Testing	User acceptance testing conducted.	April 28, 2023
Regression Testing	Regression testing of entire platform.	April 30, 2023
Performance Testing	Performance testing conducted.	May 2, 2023
Defect Retest	Test all defects fixed during testing.	May 3, 2023
Test Completion Report	Completion of testing report.	May 3, 2023

Document Approval

The signatures below acknowledge that the test plan outlined above is complete and accurate. Upon receiving written approval, the project team will proceed to the next step of the project.

If anything changes during the execution of the project, the test plan will be updated and reapproved accordingly.

Approved by: Printed name	Approved by: Title	Approved By: Signature/Date
Mai Oudah	Business Representative	
Dena Ahmed	Business Representative	
Chunting Liu	IT Representative	<i>Chunting Liu</i> May 03, 2023
Kaile Chu	IT Representative	<i>Kaile Chu</i> May 03, 2023
Ziyad Fawzy	IT Representative	<i>Ziyad Fawzy</i> May 03, 2023
Ziad Hassan	IT Representative	<i>Ziad Hassan</i> May 03, 2023

Document Tracking

Date	Action Taken	By Whom
April 19	Test Plan document created	Ziad Hassan
April 22	Test Plan document completed	Ziad Hassan
April 24	Test Environment setup completed	Kaile Chu
April 26	Integration Testing conducted	Ziyad Fawzy
April 28	User Acceptance Testing conducted	Chunting Liu
April 30	Regression Testing conducted	Ziyad Fawzy
May 2	Performance Testing conducted	Chunting Liu
May 3	Defect Retest conducted	Ziyad Fawzy
May 3	Test Completion Report completed	Ziad Hassan