Group 09

PageRhythm
Master Test Plan

Version 1.0

Revision History

Date	Version	Description	Author
12/Dec/2024	1.0	The initial version of Test Plan Document	Nguyen Hoang Minh, Trinh Nguyen Thao Vi

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Master Test Plan

1.   Introduction

The primary objective of this test plan is to establish a comprehensive and systematic framework for all testing activities within the PageRhythm project. This plan will define the scope, approach, resources, schedule, and methodologies for testing, ensuring alignment with overall project goals and timelines. It will serve as a guide for all testing efforts, fostering a shared understanding among stakeholders and ensuring consistency throughout the testing process.

This document offers a detailed overview of the testing environment, required resources, testing methodologies, and the roles and responsibilities of the testing team.

The primary audience for this document includes:

- Project Manager: To understand the testing scope, schedule, and resource allocation.
- Development Team: To understand the testing requirements and ensure their code meets the defined quality standards.
- Testing Team: To guide their testing efforts and ensure all aspects of the application are adequately covered.
- Stakeholders: To understand the quality assurance process and its implications on project timelines and product quality.

This document includes the following key features:

- Outlines the objectives to be achieved through the testing process.
- Clearly defines the scope of testing, specifying which features and functionalities of the PageRhythm application will be tested.
- Details the necessary hardware and software configurations required for a stable and representative test environment. This includes specifying hardware requirements, operating systems, internet browsers, and other essential software components to accurately simulate the production environment.
- Identifies the productivity and support tools necessary for efficient test execution and management.
- Specifies the roles and responsibilities of individuals involved in the testing process, ensuring clear accountability.

2.   Target Test Items

Feature Name	Description	Area
Register an account	The feature allows new users to create an account on the PageRhythm platform by providing necessary details.	Ensure proper data validation, usability, security (password strength), error handling, and successful account creation.
Log in to an account	The feature allows existing users to access their accounts using their registered credentials (email and password).	Test authentication, session management, error handling for incorrect credentials, and security (e.g., protection against brute-force attacks).
Find and access books	The feature allows users to search, filter, and retrieve books from the PageRhythm library.	Focus on the search accuracy, speed, usability, filtering, accessibility of results, and response time under varying loads.
Read and navigate books	The feature allows users to read different pages of a book.	Ensure smooth navigation, responsiveness across devices, accessibility (font size, screen reader support), usability, and performance under different conditions (e.g., page load speed).

Rate and comments about books	The feature allows users to give ratings (e.g., stars) and leave comments about a book.	Focus on the functionality of the rating system, validation of input (e.g., no blank comments), display of ratings and comments, and the ability to update or delete feedback. Ensure security measures are in place to prevent spam or malicious content.

3.   Environmental Needs

3.1   Hardware Requirements

The following minimum specifications are required for computers that are used for the test plan (PC or laptop):

- **Processor**: Intel Core i3 or equivalent AMD processor (2.0 GHz or faster)
- **RAM**: 4 GB or more
- **Storage**: 500 MB of available hard disk space
- **Graphics**: Integrated graphics card with support for basic graphical rendering
- **Network**: Broadband internet connection with a minimum download speed of 2 Mbps

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
Google Chrome	Internet Browser for accessing and testing the PageRhythm web application	Latest	Internet Browser
Microsoft Edge	Internet Browser for accessing and testing the PageRhythm web application	Latest	Internet Browser
Windows OS	Operating System for running the test environment and the PageRhythm application	>= 10	Operating System
Flask	Web Framework for running the backend server	3.1.0	Web Framework
npm	Package Manager for running the frontend server	Latest	Package Manager

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
Defect Tracking	Google SpreadSheets	Google	Latest
Documentation	Google SpreadSheets	Google	Latest
Documentation	Google Docs	Google	Latest

Tool Category or Type	Tool Brand Name	Vendor or In-house	Version
Version Control	Github	GitHub, Inc.	Latest
API Testing	Postman	Postman	Latest
Collaboration	Slack	Slack Technologies	Latest
Online Meetings	Google Meet	Google	Latest

4. Responsibilities, Staffing, and Training Needs

4.1 People and Roles

The following table outlines the staffing assumptions for the testing effort.

Human Resources		
Role	**Minimum Resources Recommended** (number of full-time roles allocated)	**Specific Responsibilities or Comments**
Test Manager	Nguyen Hoang Minh	The test manager is responsible for providing overall management oversight. The responsibilities include: ● Planning and coordinating logistics ● Defining and aligning the mission objectives ● Identifying key motivators and drivers for success ● Securing the necessary resources ● Delivering management reports ● Representing and advocating for the testing team's interests ● Assessing the effectiveness of the testing efforts
Tester	Le Cao Tien Dat Trinh Nguyen Thao Vi	The testers are responsible for implementing and executing tests. The responsibilities include: ● Developing and implementing tests and test suites ● Running test suites and executing individual tests ● Recording and logging test results ● Analyzing and troubleshooting test failures ● Documenting incidents and issues

Human Resources		
Role	**Minimum Resources Recommended** **(number of full-time roles allocated)**	**Specific Responsibilities or Comments**
Test System Administrator	Luu Quoc Bao Le Huu Nghia	The test system administrators are responsible for managing and maintaining the test environment and its assets. Their responsibilities include: ● Administering the test management system ● Installing, supporting access to, and recovering test environment configurations and test labs