GROUP 01

AI4STYLE

Iteration Test Plan

Version 1.0

Revision History

Date	Version	Description	Author
07/12/2025	1.0	Init test plan	All team's members

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Iteration Test Plan	Date: 07/12/2025
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Iteration Test Plan

1.   Introduction

1.1 Objectives

This document defines the testing strategy for the AI4STYLE project, an e-commercial platform with AI integration for fashion specification. The main objectives include:

- Guaranteeing the correct operation of all key functionalities.
- Discovering and having appropriate solutions for any defects prior to project submission or deployment.
- Providing a clear testing roadmap for all subsequent activities.

1.2 About This Document

This test plan includes:

- List of key features to be tested.
- Hardware and software requirements and support tools for the test environment.
- Role assignments and responsibilities within the team.

1.3 Intended Audience

- Developers: To understand testing scope and code quality expectations.
- Testers: To write, execute and report test cases and results.
- Instructors: To verify project quality and testing approach.

1.4 Key Features
- Functional testing of all major system flows (use-cases).
- Testing in real-world context (modern browsers, various cases of usage).
- Clear and concise test reports for each use case.

2.   Target Test Items

Group	Feature	Test areas	Description
Authentication	Sign-in	Functionality, Usability, Security	This feature allows users to access the system using their credentials. Since it controls user access and protects personal data, test cases must cover both valid and invalid login scenarios to ensure usability and security.
	Sign-up	Functionality, Usability, Security	The Sign-up feature allows new users to create an account. Test

			cases should validate user inputs, handle duplicate registrations, and ensure a smooth and secure onboarding experience.
	Sign-out	Functionality, Usability, Security	This feature enables users to log out and end their current session. Test cases are needed to ensure sessions are properly terminated and unauthorized access is prevented after logout.
User profile	Manage-profile	Functionality, Usability	This feature allows users to view and update their personal information. Test cases should verify data updates and input validation to ensure accurate and user-friendly profile management.
	Manage orders (buyer)	Functionality, Usability	Verified users can check order history (status, details of order), make a request for return and re-order specific ones (add to cart list of products in this order).
Website Usage	Browse product	Functionality, Usability, Performance	This is one of the most important features, with lots of functionalities implemented, such as sorting, filtering, searching and pagination, enhancing the user experience. Test cases will ensure each filter option works accordingly, either by itself or in combination with other options, while making sure the products load correctly with the applied filters, and pagination.
	View product detail	Functionality, Usability	This feature allows users to check many information related to a product. They can view the description, or add a specific variant to cart, while having many navigation options, such as picking another product color, or a related product. Test cases will ensure correct

			information display and navigation flows.
	Add product to cart	Functionality, Usability	This feature allows users to add selected products to their shopping cart from the product listing or product detail page. Test cases focus on ensuring the correct product, quantity, size, and other options are accurately added and updated in the cart. The system must handle multiple additions, prevent invalid inputs, and provide clear feedback to the user. Performance testing ensures that cart updates occur quickly and reliably to maintain a smooth shopping experience.
	View cart details	Functionality, Usability	This feature enables users to review all items currently in their shopping cart, including product information, quantities, prices, and total cost. Test cases verify data accuracy, real-time updates when items are modified or removed, and correct price calculations. Usability testing ensures the cart layout is clear and easy to understand, while performance testing confirms fast loading and responsiveness across different devices and browsers.
	Use chatbot	Functionality, Usability, Performance	This feature allows users to interact with an AI-powered chatbot to receive product recommendations, size guidance, and general support during their shopping journey. Test cases cover response accuracy, context awareness, and proper handling of user queries and edge cases. Usability testing focuses on clarity of responses and ease of interaction, while performance testing ensures timely responses without noticeable delays,

			providing an efficient and helpful user experience.
Order, Payment	Checkout order	Functionality, Usability	This feature allows users to place an order, filling out important fields, and selecting a payment method, after which the system will handle redirecting, such as to the Momo Gateway or just the empty Cart. Test cases will ensure the checkout form works with all types of input, while making sure the system redirects accordingly with the selected payment method.
General Admin management	Manage categories	Functionality, Usability	This feature allows administrators to create, view, update, and delete product categories to ensure products are well-organized and easy to navigate. It includes managing category names, descriptions, hierarchy (parent–child categories), and visibility status. Test cases validate correct CRUD operations, proper category relationships, and data consistency. Usability testing ensures category management is intuitive, while performance testing confirms fast loading when handling a large number of categories.
	Manage products	Functionality, Usability	This feature enables administrators to manage the full lifecycle of products, including adding new products, editing product information, updating prices, managing inventory levels, and removing products when necessary. Product details such as images, descriptions, categories, and status are maintained to ensure accurate display to customers. Test cases verify data integrity, correct price and stock updates, and proper category assignment.

			Performance testing ensures efficient handling of large product catalogs, while usability testing confirms that product management workflows are clear and user-friendly.
	Manage orders	Functionality, Usability	This feature allows staff or administrators to view, track, and manage customer orders from creation to completion. It includes updating order statuses (e.g., pending, processing, shipped, completed, canceled), viewing order details, and handling exceptions such as cancellations or refunds. Test cases ensure accurate order information, correct status transitions, and reliable communication with related systems (inventory, payment). Usability testing focuses on clear order tracking and management, while performance testing ensures timely order processing under high transaction volumes.
	Export report	Functionality, Usability	This feature enables administrators to generate and export system reports for business analysis and decision-making. Reports may include sales data, order summaries, product performance, and revenue statistics, which can be exported in formats such as PDF or Excel. Test cases verify data accuracy, correct filtering by date or criteria, and successful file generation. Performance testing ensures reports are generated efficiently even with large datasets, while usability testing ensures the export process is simple and understandable.
Higher Admin	Manage staff	Functionality,	Verified root admin can create

management		Usability, Security	new accounts, assign role to staff and remove specific ones from the system. Ensure only root admin can access this page.
	Manage role	Functionality, Usability, Security	Verified root admin can create roles, update permissions for roles. Ensure only root admin can access this page.

3. Environmental Needs

3.1 Hardware Requirements

Device	Version
Client desktop (Windows)	8GB RAM, 256GB SSD, Intel i3 or equivalent
Client desktop (macOS)	Apple M1 / Intel Core i5, 8 GB RAM, 256 GB SSD
Client phone (Android)	8GB RAM, 64GB
Client phone (IOS)	8GB RAM, 64GB

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	Execute application for web browser	143.x	Internet Browser
Microsoft Edge	Execute application for web browser	143.x	Internet Browser
Firefox	Execute application for web browser	146	Internet Browser
Windows 11, 64 bit	Test client OS	24H2	Operating System
Linux (Debian distribution)	Test client OS	13.2	Operating System
Mac OS	Test client OS	15.5	Operating System

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
Write test cases for key features	Google Sheets	Google	Latest
Write test reports	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	Tạ Xuân Trường	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	Lê Nguyễn Nhật Trường Nguyễn Anh Khoa Nguyễn Anh Thư Đặng Lữ Kiều My Tạ Xuân Trường	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	Lê Nguyễn Nhật Trường	Ensures the 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