

# Test Plan – Mini Project

Quality Engineer – Class A

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## Revision and Signoff Sheet

### Document History

Version	Date	Author	Description of Change
1	05/04/2023	Audyva Irefilevitasari Alifia	Draft
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### Approvers List

Name	Role	Approver / Reviewer	Approval / Review Date
Trino Hutasoit	Mentor. Evaluator		

### Reference Documents

Version	Date	Document Name
1.0	05/04/2023	Live-Project_Test-Plan_MiniProject
2.0	05/08/2023	Quality Engineer Test Plan-Alterra Mini Project_Audyva-Irefilevitasari-Alifia
3.0	05/09/2023	Test Plan of Mini Project_ By-Audyva Irefilevitasari-Alifia_Quality-Engineer-Class-A_PT-Marka-Kreasi-Persada-Alterra
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## 1. INTRODUCTION

A test plan is a document that outlines the objectives, resources, and processes for a specific software test. The test plan document in this case pertains to the Altashop Website, API, and App, specifically the frontend\_mobile system, and explains how the software will run based on pre-set requirements. The aim of the test plan is to test the software's suitability against the goals set during project planning. By creating a detailed test plan, all aspects of the software can be covered, and the design results can be verified against the development plan.

### 1.1. Purpose

The purpose of the test plan document is to ensure that the API, Web, and Mobile products of Alta Shop comply with predetermined requirements. The document specifies the objectives, resources, and processes for a specific test to be conducted on the software products. It identifies the features or components of the software that need to be tested, the type of testing to be applied, the required resources, and the estimated test efforts. Additionally, the document lists the deliverable elements of the test activities. By establishing clear and measurable test steps, the test plan document ensures that all aspects of the software are covered, and the results of the design are in accordance with the development plan.

### 1.2. Project Overview

Software testing is a critical process that verifies whether a software product or application performs as intended and aligns with the requirements set. Testing is essential in identifying possible bugs or defects that may appear in the system. To conduct testing efficiently, a test plan document is necessary. This document serves as a reference for conducting tests, ensuring that the expected goals and results can be achieved. By following the test plan, all aspects of the software can be covered, and the design results can be verified against the development plan established during project planning. Overall, software testing plays a vital role in ensuring that software products or applications meet the required standards and perform as intended.

### 1.3. Audience

The audience for this document is anyone involved in testing the API, Altashop Web, and Mobile App. The scope of testing includes functionality, user interface, and automation testing for each feature on the web and mobile app, as well as manual and automation testing for the API. Testing for the web UI involves features such as authorized user, homepage, cart, pay, and transaction, while testing for the mobile app includes the same features, except for auth and homepage. The API testing covers manual and automation testing for the API URL, which can be found at <https://documenter.getpostman.com/view/5781191/2s8YmULKUi#3f60955e-6718-48aa-811a-0c62aff3ed75>.

## 1.4. Requirement for Test

The testing requirements for the AltaShop system encompass the Web UI, API, and Mobile. To accomplish this, several tools are used, including:

- Microsoft Excel for test documentation
- Intellij IDEA CE for automation testing for AltaShop Website
- Google Chrome Driver for run web automation testing
- Pixel 2 API 30 from Android Studio and Katalon for mobile testing
- Microsoft Word for document test and report

## 2. TEST STRATEGY

### 2.1. Test Types

Object to Test	Testing Types	Test Planning and Test Design	Details
API	Manual	Test Objective	The primary objective of this testing plan is to evaluate the functionality of each URL and verify the response code and output. This will help ensure that the software products meet the predetermined requirements and are fit for purpose.
		Technique	The testing technique will involve testing each URL using different methods and test data. This will enable us to identify any issues or defects in the software and ensure that the results of the design align with the development plan established during project planning. The HTTP response code and output will be verified to confirm that they align with the inputs and transactions made.
		Completion Criteria	The completion criteria for this test plan are that each URL must function correctly. Additionally, the output and response code must align with the inputs and transactions made. By establishing clear and measurable test steps, this test plan document ensures that all

	Automation		aspects of the software are covered, and the results of the design are in accordance with the development plan previously made.
		Test Objective	The primary objective of the testing is to ensure that all URLs in the Altashop system are functional and produce the correct response codes and outputs. This will involve verifying the proper functionality of each URL.
		Technique	To achieve the test objective, several techniques will be employed, including testing each URL using different methods and test data. Additionally, the HTTP response code and output will be verified to ensure they align with the expected inputs and transactions made. The testing will be conducted using automation in Serenity.
		Completion Criteria	To meet the test objective, the following completion criteria will be used. Firstly, each URL in the Altashop system should function properly. Secondly, the output and response code of each URL must be in accordance with the inputs and transactions performed. These criteria will ensure that the Altashop system operates correctly and meets the required standards.
<b>Web</b>	Manual	Test Objective	The test objective is to ensure that all form inputs that require data input can perform the necessary input to the database or for processing.
		Technique	The technique involves testing each button on the form and testing the input form with various input conditions to ensure that all input fields can be properly processed.
		Completion Criteria	The completion criteria for this

	Automation		test are that each field form can input data to be processed properly and that the output must be in accordance with the inputs and transactions made.
		Test Objective	The objective of the test is to ensure that all forms requiring input data can properly input data to the database or for processing.
		Technique	To achieve this objective, the following techniques will be used: <ul style="list-style-type: none"> <li>• Testing each button on the form to ensure it performs the intended action.</li> <li>• Testing the input form with various input conditions to check for any errors or unexpected behavior.</li> <li>• Using automation in Serenity BDD to automate the testing process and increase efficiency.</li> </ul>
		Completion Criteria	The completion criteria for the test are as follows: <ul style="list-style-type: none"> <li>• Each field form can input data to be processed properly.</li> <li>• The output of the form must be in accordance with the inputs and the transactions that have been made.</li> </ul>
Mobile	Manual	Test Objective	The test objective is to ensure that all form inputs that require data input can perform the necessary input to the database or for processing.
		Technique	The technique involves testing each button on the form and testing the input form with various input conditions to ensure that all input fields can be properly processed.
		Completion Criteria	The completion criteria for this test are that each field form can input data to be processed properly and that the output



			must be in accordance with the inputs and transactions made.
	Automation	Test Objective	The primary objective of the testing is to ensure that all URLs in the Altashop system are functional and produce the correct response codes and outputs. This will involve verifying the proper functionality of each URL.
		Technique	To achieve the test objective, several techniques will be employed, including testing each URL using different methods and test data. Additionally, the HTTP response code and output will be verified to ensure they align with the expected inputs and transactions made. The testing will be conducted using automation in Katalon with Pixel 2 API 30 of Android Studio.
		Completion Criteria	To meet the test objective, the following completion criteria will be used. Firstly, each URL in the Altashop system should function properly. Secondly, the output and response code of each URL must be in accordance with the inputs and transactions performed. These criteria will ensure that the Altashop system operates correctly and meets the required standards.

## 2.2. Test Tools

Types of Testing	Tool	Vendor	Version
Automation Testing Tools for API	Intellij IDEA CE	Serenity	2022.2.1
Automation Testing Tools for Web	Intellij IDEA CE	Serenity	2022.2.1
Automation Testing Tools for Mobile	Katalon	Katalon, Inc	2.0
Android Control Tools/Emulator	Pixel 2 API 30	Android Studio	2021.2.1
Document Test Case	Google Spreadsheets	Google Suites	-
Document Test Plan and Report	Google Docs	Google Suites	-

CI/CD Pipeline	Github Actions	Github	V2
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## 2.3. Test Principles

The following are the principles that will guide the testing process:

- The testing activities will be designed to meet the business objectives, achieve cost efficiency, and ensure quality.
- All teams involved in testing will follow common and consistent procedures.
- The testing processes will be well-defined but flexible enough to adapt to changing needs.
- Testing activities will build on previous stages to avoid redundancy or duplication of effort.
- The testing environment and data will resemble a production environment as closely as possible.
- Testing will be a repeatable, quantifiable, and measurable activity.
- The testing process will be divided into distinct phases, each with clear objectives and goals.
- Entrance and exit criteria will be established to ensure the testing process is effective.

## 2.4. Resource System

- Web UI: <https://alta-shop.vercel.app/>
- API: <https://altashop-api.fly.dev/api/>
- API Postman Documentation:  
<https://documenter.getpostman.com/view/5781191/2s8YmULKUi#3f60955e-6718-48aa-811a-0c62aff3ed75>
- Mobile: <https://drive.google.com/file/d/1k8aMWOxYlhZRsLWNPAr54LJarD9o-ul/view>

## 2.5. Software Test

- Google Spreadsheet
- IntelliJ IDEA CE
- Android Studio
- Katalon
- Github Actions

## 3. PROJECT MILESTONES

No	Milestone Task	Start date	End date
1	Plan Test	04/15/2023	04/16/2023
2	Design Test	04/17/2023	04/18/2023
3	Implement Test	04/19/2023	05/06/2023
4	Execute Tests	04/20/2023	05/07/2023
5	Report Test	05/04/2023	05/09/2023

## 4. TEST ENVIRONMENT

The hardware standards that will be used to perform software testing are:

- VICTUS By HP Edition : Windows 11 Home Single Language
- Version : 25/02/2023
- OS build : 22621.1555
- Experience : Windows Feature Experience Pack 1000.22640.1000.0
- Processor : AMD Ryzen 5 5600H with Radeon Graphics 3.30 GHz
- Installed RAM : 16,0 GB (15,3 GB usable)
- System type : 64-bit operating system, x64-based processor

## 5. RESULTS

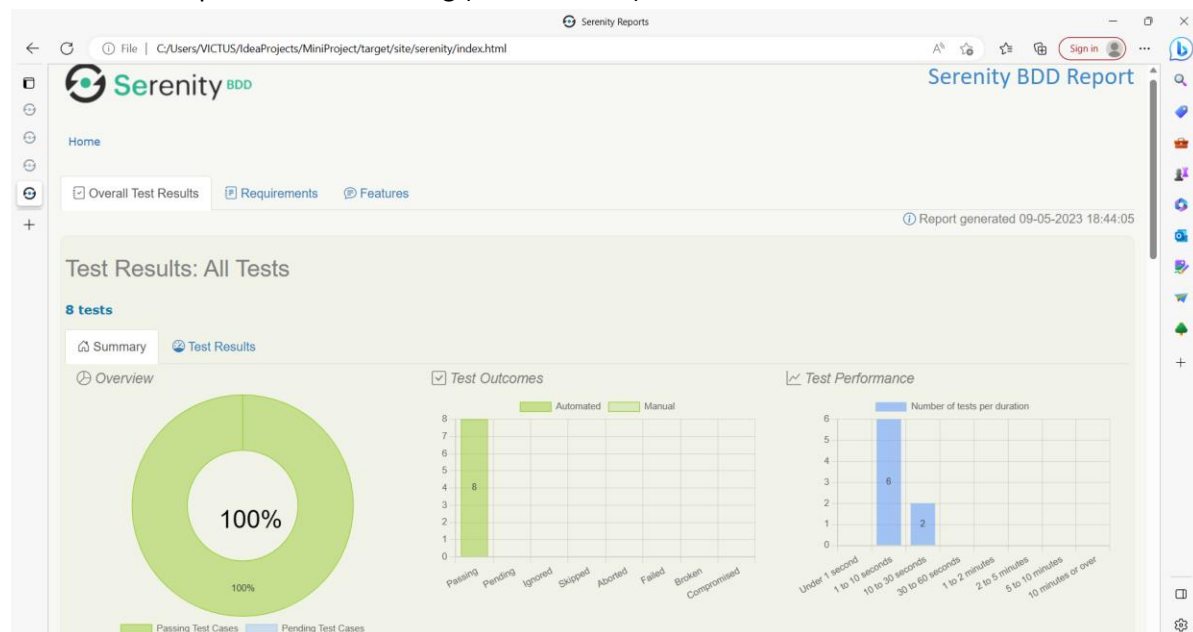
### 1. Web AltaShop Manual Testing (83,67% success)

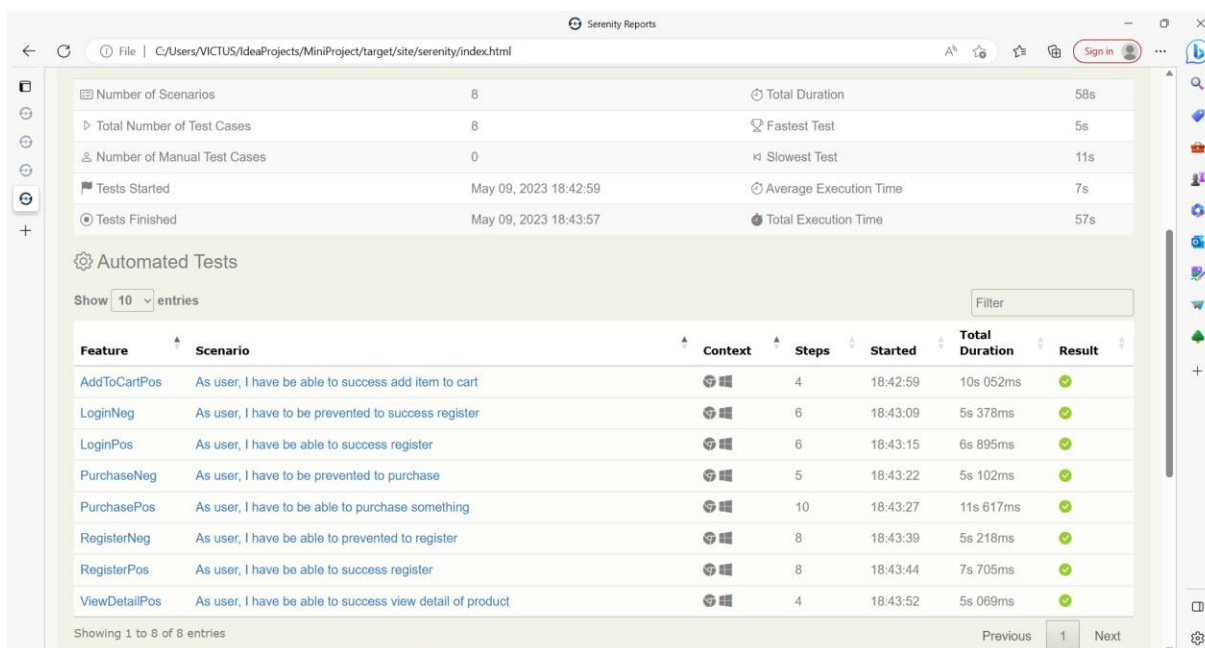
E18								
	A	B	C	D	E	F	G	H
1	Website Result: AltaShop							
2								
3		Fitur	Test Case	Positive Test Case	Negative Test Case	Success	Failed	Percentage
4		Fitur Register	5	1	4	3	2	60%
5		Fitur Login	9	1	8	9	0	100%
6		Fitur Pilih Produk	14	14	0	9	5	64,28%
7		Fitur Pembelian	7	5	2	7	0	100%
8		Fitur Akun	14	14	0	13	1	92,85%
9								
10		Overall:	83,67% Success					
11								
12								

## 2. Mobile frontend\_mobile Manual Testing (81,81% success)

	A	B	C	D	E	F	G	H	I
1	<b>Mobile Result: frontend_mobile</b>								
2									
3		Fitur	Test Case	Positive Test Case	Negative Test Case	Success	Failed	Percentage	
4		Fitur Register	6	1	5	5	1	83%	
5		Fitur Login	4	0	4	4	0	100%	
6		Fitur Cart	1	1	0	0	1	0,00%	
7									
8		Overall:	81,81% Success						
9									
10									

## 3. Web UI AltaShop Automation Testing (100% success)





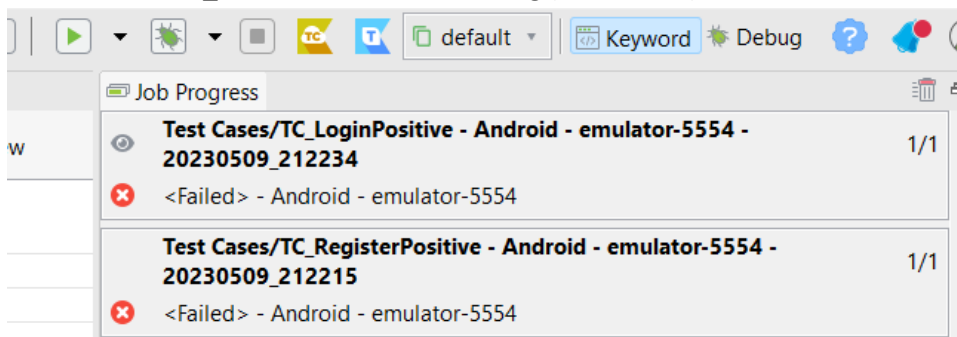
The screenshot displays the Serenity Reports interface for a project named 'MiniProject'. The top section provides a summary of test statistics:

Test Category	Value	Test Category	Value
Number of Scenarios	8	Total Duration	58s
Total Number of Test Cases	8	Fastest Test	5s
Number of Manual Test Cases	0	Slowest Test	11s
Tests Started	May 09, 2023 18:42:59	Average Execution Time	7s
Tests Finished	May 09, 2023 18:43:57	Total Execution Time	57s

Below the summary, the 'Automated Tests' section shows a list of 8 test scenarios, all of which passed successfully. The table includes columns for Feature, Scenario, Context, Steps, Started, Total Duration, and Result.

Feature	Scenario	Context	Steps	Started	Total Duration	Result
AddToCartPos	As user, I have be able to success add item to cart		4	18:42:59	10s 052ms	✓
LoginNeg	As user, I have to be prevented to success register		6	18:43:09	5s 378ms	✓
LoginPos	As user, I have be able to success register		6	18:43:15	6s 895ms	✓
PurchaseNeg	As user, I have to be prevented to purchase		5	18:43:22	5s 102ms	✓
PurchasePos	As user, I have to be able to purchase something		10	18:43:27	11s 617ms	✓
RegisterNeg	As user, I have be able to prevented to register		8	18:43:39	5s 218ms	✓
RegisterPos	As user, I have be able to success register		8	18:43:44	7s 705ms	✓
ViewDetailPos	As user, I have be able to success view detail of product		4	18:43:52	5s 069ms	✓

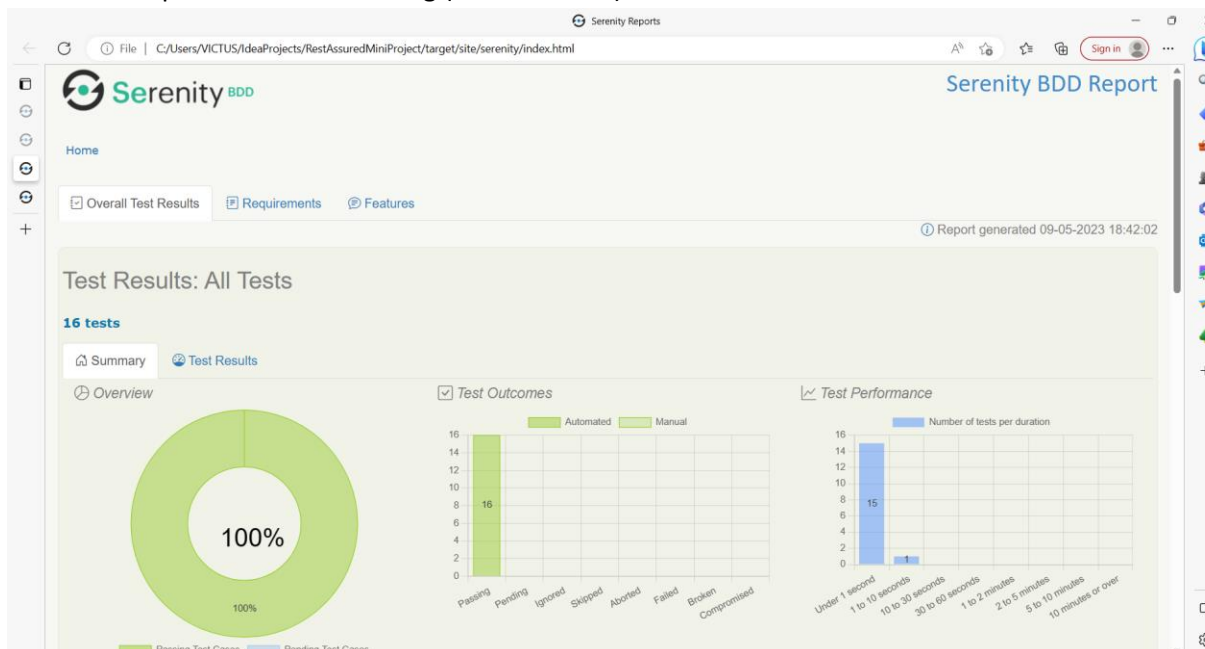
#### 4. Mobile frontend\_mobile Automation Testing (0% success)



The screenshot shows a mobile automation testing tool interface. The 'Job Progress' section displays two test cases, both of which failed:

- Test Cases/TC\_LoginPositive - Android - emulator-5554 - 20230509\_212234** (1/1)
  - <Failed> - Android - emulator-5554
- Test Cases/TC\_RegisterPositive - Android - emulator-5554 - 20230509\_212215** (1/1)
  - <Failed> - Android - emulator-5554

#### 5. Web AltaShop REST Assured Testing (100% success)



Serenity Reports

File | C:/Users/VICTUS/IdeaProjects/RestAssuredMiniProject/target/site/serenity/index.html

Test Results: All Tests

16 tests

Summary Test Results

Automated Tests

Show 25 entries


Feature	Scenario	Steps	Started	Total Duration	Result
Auth	GET - As admin I have be able to get user information	4	18:41:47	2s 953ms	✓
Auth	POST - As admin I have be able to register a new user account	4	18:41:50	231ms	✓
Auth	POST - As admin I have be able to login existing user account	4	18:41:50	189ms	✓
Category	GET - As admin I have be able to get product category	4	18:41:50	253ms	✓
Category	POST - As admin I have be able to assign a product category	4	18:41:50	170ms	✓
Category	DELETE - As admin I have be able to delete existing category	3	18:41:51	154ms	✓
Comment	GET - As admin I have be able to get product comment	4	18:41:51	204ms	✓
Comment	POST - As admin I have be able to assign a product comment	4	18:41:51	210ms	✓
Index	GET - As admin I have be able to get to say hello	4	18:41:51	220ms	✓
Order	GET - As admin I have be able to get order	4	18:41:51	405ms	✓
Order	POST - As admin I have be able to create a new order	4	18:41:52	178ms	✓
Product	GET - As admin I have be able to get detail product	4	18:41:52	252ms	✓
Product	POST - As admin I have be able to create new product	4	18:41:52	193ms	✓
Product	DELETE - As admin I have be able to delete existing product	3	18:41:53	154ms	✓
Rating	GET - As admin I have be able to get rating product	4	18:41:53	195ms	✓
Rating	POST - As admin I have be able to assign a rating product	4	18:41:53	206ms	✓

## 6. CI/CD Pipeline

<https://github.com/audyvaalifia/Semua-CI-CD-Pipeline-QE-A/actions>

## 6. APPROVALS

The Names and Titles of all persons who must approve this plan.

Signature:	
Name:	Audyva Irefilevitasari Alifia
Role:	Individual Quality Engineer
Date:	05/09/2023

Signature:	
Name:	Trino Hutasoit
Role:	Mentor, Evaluator
Date:	05/09/2023