HANOI UNIVERSITY OF SCIENCE AND
TECHNOLOGY
School of Information and communications technology

Test Plan
Version 1.0

AIMS PROJECT
Subject: Software Development

Vũ Đình Minh
20194804

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1. Introduction

1.1. Objective

(1) Goal:

- Describe the project's background, the functional components that will be tested and those that won't be

- List the test's criteria (Test Requirements)

- Creating a testing plan (Test Approach)

- Calculate the resources needed and the cost of the testing

- Documents to be created once the testing is finished

- Calculate the resources needed and the cost of the testing

- Documents to be created once the testing is finished

(2)

1.2 Scope

(1) The AIMS Project is the intended user of this test plan.

(2) The AIMS Project is an online marketplace with a focus on purchasing and selling media items.

(3) This Level Test Plan is meant to satisfy an essential element of the project's requirements, including PlaceOrder Usecase and PlaceRushOrder Usecase:

- Place Order UC: Verification of the customer's identity, address, and phone number. In relation to PlaceOrderController

- Place a Rush Order UC: Verifying the supported media and addresses, and adjusting the formula for determining shipping costs. In relation to PlaceRushOrderController

(4) The Master Plan includes this Level Test Plan: the first version of AIMS

1.3. Glossary

Terms	Definition
AIMS	*An Internet Media Store*
Black-box Testing	*A testing strategy in Software Development*
White-box Tesitng	*A testing strategy in Software Development*
Unit Test	*A level of Testing*

1.4. References

Centers for Medicare & Medicaid Services. (n.d.). Test Case Specification. Retrieved from Centers for Medicare & Medicaid Services: https://www.cms.gov/Research-Statistics-Data-and-Systems/CMS-Information-Technology/XLC/Downloads/TestCaseSpecification.docx

Centers for Medicare & Medicaid Services. (n.d.). Test Plan. Retrieved from Centers for Medicare & Medicaid Services: https://www.cms.gov/Research-Statistics-Data-and-Systems/CMS-Information-Technology/XLC/Downloads/TestPlan.docx

guru99. (n.d.). Download Sample Test Case Template: Example Excel, Word Formats. Retrieved from guru99: https://www.guru99.com/download-sample-test-case-template-with-explanation-of-important-fields.html

Master Test Plan: AIMS project v1.0

2. Overall Description

2.1. General Overview

(1) Place Order Usecase: Describes the interaction between a customer and AIMS software when the customer wants to place an order.

- Referenced documentation: Use case specification - Place Order, Activity Diagram - Place Order, Sequence Diagram - Place Order, Communication diagram - Place Order, Class Diagram - Place Order

(2) Place Rush Order Usecase: Illustrate the interaction between the customer and AIMS software when the customer wants to place a rush order.

- Referenced documentation: Use case specification - Place Rush Order, Activity Diagram - Place Rush Order, Sequence Diagram - Place Rush Order, Communication diagram - Place Rush Order, Class Diagram - Place Rush Order

(3) Please refer to the following documents for further information and understanding: Usecase Diagram, AIMS detailed package diagram, AIMS detailed class diagram, General class diagram

2.2. Assumptions/Constraints/Risks

2.2.1. Assumptions

In the simulator, for simplicity, customers do not need an account to place orders and pay for orders.

This software does not have the ability for customers to sign up and log in. The simulated system issues a virtual credit card containing information about payment methods for each group.

To complete a transaction with a credit card, AIMS software calls a number of available APIs.

2.2.2. Constraints

***Environment needs:
(1)Hardware:
Personal computer having Java:

CPU	RAM	SSD	Architecture
Intel Core i5, 2.3GHz	8 GB	256 GB	64bit

(2) Software:
- Eclipse IDE installing JUnit
***User's Environment:
Personal computer:

CPU	RAM	SSD	Architecture
Intel Core i5, 2.3GHz	8 GB	256 GB	64bit

2.2.3. Risks

(1) Risk

- Team members lack the skills required for testing.
- The project schedule is too tight
- Poor test manager management skills
- Lack of collaboration negatively impacts member productivity
- Improper budgeting and cost overruns
(2) Contingencies:

- Schedule training courses to improve members' skills
- Set test priority for each test activity.
- Create a training plan for managers
- Encourage each team member to accomplish their tasks and encourage them to work harder.
- Set scope before work begins, pay close attention to project planning, and continuously monitor and measure progress

3. Testing Approach/Strategy

(3.1) Unit test

- Performed by development team

- Use both white-box and black-box testing strategies

- Supported by Junit

(3.2) System test

- Only test cases run on PC

- Support interface testing with more tools

- Use a black box testing strategy

4. Unit Testing Summary

4.1. Traceability from Test Cases to Use Cases

USE CASE ID			UC001	UC002	UC003	UC004	UC005	...
Test Case ID	Test CaseTitle	Totals	3	0	0	0	0	0
TC001	Verify Phone Number	1	x					
TC002	Verify Customer's Name	1	x					
TC003	Verify Shipping Address	1	x					
...								

Table: Test Case-to-Use Case Traceability Matrix

4.1.1. Test Suite for UC001-"Place Order"

Test Suite ID	Test Suite Title	Description	Test Cases
TS001	PlaceOrderTestSuite	Verify if customer can place an order	TC001, TC002, TC003

4.2. Traceability from Test Cases to Requirements

REQUIREMENT ID			RQ001	RQ002	RQ003	RQ004	RQ005	...
Test Case ID	Test CaseTitle	Totals	1	1	0	0	0	0
TC001	Verify Phone Number	2	x	x				
TC002	Verify Customer's Name	2	x	x				
TC003	Verify Shipping Address	2	x	x				
...		0						

Table: Test Case-to-Requirement Traceability Matrix

4.2.1. Test Suite for RQ001-"Place Order"

Test Suite ID	Test Suite Title	Description	Test Cases
TS001	PlaceOrderTestSuite	Verify if customer can place an order	*TC001, TC002, TC003*

5. Test Case Details

5.1. Test Case Specification for "Place Order"

Test Case ID	TC001	**Test Case Description**	Test the UC Place Order		
Created By	Vu Dinh Minh	**Reviewed By**	Vu Dinh Minh	**Version**	1.0

QA Tester's Log Review comments from Reviewer incorprate in version 1.0

Tester's Name	Vu Dinh Minh	**Date Tested**	12/10/2022	**Test Case (Pass, Fail, Not Executed)**	Pass

#	Prerequisites:
1	Access to AIMS Software
2	

#	Test Data	Value
1	Quantity	100
2	Update quantity	7
3	Name	MinhVu
4	Phone	354154681
5	Province/City	Hanoi
6	Address	Phuong Liet, Thanh Xuan, Ha Noi
7	Shipping Instruction	Only delivery between 8.30 AM and 6.00 PM
8	Payment Method	CreditCard
9	Card Number	123456789
10	Card Holder Name	Minh Vu
11	Expiration Date	1/1/2026
12	Card Security Code	qwertyuiop

Test Scenario Verify if customer can place an order

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended

#	Step	Expected	Result	Status
1	View the cart	Cart should open	As Expected	Pass
2	The software displays the info of the cart (subtotal, VAT,...)	Screen must display clearly	As Expected	Pass
3	Request to place an order	Success to request	As Expected	Pass
4	Update delivery info and instruction	Update successfully	As Expected	Pass
5	The software displays the invoice	Screen must display clearly	As Expected	Pass
6	Confirm invoice	Confirm successfully	As Expected	Pass
7	Provide Payment Method	Payment method: Credit Card successfully	As Expected	Pass
8	Provide Transaction info	Record transaction info done	As Expected	Pass
9	Software sends an email of invoice and transaction	Send successfully	As Expected	Pass
10	Order approval	Admin approves successfully	Not Expected	Fail

5.2. Test Case Specification for "Place Rush Order"

Test Case ID	TC002	**Test Case Description**	Test the UC Place Rush Order (extends from UC Place Order)		
Created By	Minh Vu	**Reviewed By**	Minh Vu	**Version**	1.0

QA Tester's Log	Review comments from Reviewer incorprate in version 1.0

Tester's Name	Minh Vu	**Date Tested**	12/10/2022	**Test Case (Pass, Fail, Not Executed)**	Pass

#	Prerequisites:
1	Access to AIMS Software and already be in delivery form step of Place Order UC.

#	Test Data	Value
1	Name	MinhVu
2	Phone	354154681
3	Province/City	Hanoi
4	Address	Phuong Liet, Thanh Xuan, Ha Noi
5	Shipping Instruction	Only delivery between 8.30 AM and 6.00 PM
6	Expected Time	3 hours

Test Scenario   Verify if customer can palce an rush order

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Choose to place rush order	Place rush order successfully	As Expected	Pass
2	Submit delivery form	Submit successfully	As Expected	Pass
3	Validate the input	Validate correctly	As Expected	Pass
4	Software checks if there is media and the shipping address are supported	Verify correctly	As Expected	Pass
5	Software displays the screen for rush order, allowing the customer to update rush order info	Display clearly and able to update	As Expected	Pass
6	Software changes the formula to calculate shipping fees	Change successfully	As Expected	Pass
7	Continue to calculating shipping fees steps	Switch to step successfully	Not Expected	Fail