Test Plan Document

Company 10

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Status

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Content

Document History

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1	02/17/10	First version	VS	SR

1. Introduction

This document describes the testing methodologies and the test plan to be implemented for the Unlimited Well (UW) system being developed by Company 10.The document is sub divided into various subsections with each providing information about various activities and the resources requirements for the testing of UW.

The following sections provides an overview of the UW and the testing methodology implemented in this project by Company 10. Testing for UW would be done at two levels-Unit Testing and Integrated Testing. The PASS/FAIL criteria for the test cases have also been mentioned. In consideration of the time constraints for this project, testing would be carried out for only some of the features of this project . The features which would be tested and which would not be tested are also clearly stated in this document. The document also provides the test cases and the test case template for this project.

2. Background

2.1. Client

Central Operative & Independent Retailers Acquirer (Coira).

2.2. Overall project description

Coira wants a web-based portal where customers from all corners of the world can purchase products. This portal should consist of three parts. The portal itself, called MUW (Mall Unlimited Well), that contains the interface towards the customer and the database of available products. A system for handling the suppliers and the purchases, called PUW (Purchase Unlimited Well), that contains the list of approved suppliers and their products. Also, a system for transporters and logistics is needed, called LUW (Logistics Unlimited Well), that contains all approved transporters and there routes. These systems cooperate so that when a customer orders something through MUW, a request is sent to PUW to order the goods from the supplier and a separate request is sent to LUW to book a transport for the purchased goods from the supplier to the customer. All systems should be fault tolerant and provide high availability. All systems must be secure and the integrity of customers, suppliers and transporters must have the highest priority.

MUW handles all interaction with the customer. MUW displays all available products; there details, their price and how long it will take to deliver. MUW also handles the customers orders, displays information and options about orders, such as where they are and if there is any problems, and notifies the customer if there is any hiccups along the way. MUW's graphical interface will provide context-sensitive help at all levels of the interface. At purchase, MUW should find an optimal combination of supplier and transporter. MUW contains the database of available products, their status and suppliers, as well as the customer register. MUW must support several languages and it must be easy to extend the number of languages supported. MUW

will also collect statistics about purchases and use these to make predictions about demands and ask PUW to make sure that there is enough supply to satisfy the demand.

PUW is, upon purchase, to contact the chosen supplier and book the products specified. PUW will also keep track of suppliers and update there status in MUW's database. PUW will select suppliers that should undergo a quality review given certain conditions. PUW also has to notify Coira employees if there is not enough suppliers in the system to meet the demand as predicted by MUW, so that new suppliers may be acquired. PUW will also handle delivery notes and send all required data to Coiras financial system.

LUW will be responsible for handling logistics and transportation and keeps track of transporters and their routes. Upon purchase, LUW will book suitable transportation and produce all the needed papers, such as bills of lading and import licenses. LUW is responsible for updating the status of orders and where a particular order is physically. To be able to do this, LUW must accept input from a number of different sources so that the companies that handle the actual transport can update regardless of internal system used. LUW shall utilize a GIS company to compute distances and time consumption. LUW must also make sure that each transport is as profitable as possible with very few, but existing, exceptions. LUW must also allow independent transporters to use the system to plan transports and routes. This includes transports that have nothing to do with Coira. In this case the system is called "Logistics at Transporters" (LaT). In case the system is used this way, the content in the transporters area must be exclusive to that transporter. LUW should notify MUW and Coira personnel in case any hiccups occur.

2.3. Purpose

For Coira to be able to reach and service worldwide customers and to streamline and enhance the process from placed order to delivery, in a way that is as cost efficient and fast as possible.

3. Testing Methodology

This project follows a modified V-model and testing would be part of each iteration as defined in the development plan. The UW has been subdivided into three main systems i.e, MUW, PUW and LUW. Each system has some inbuilt functionality and design requirements to be implemented..The requirements have been divided into the three phases planned for this project-Phase 0, Phase 1 and Phase 2 respectively. And in accordance with the life cycle model for this project, testing would be carried out in all the three phases and also a integrated testing is planned at the end of the each phase and also at the end of the final phase.

Testing in generic cases needs to be done for all the features and requirements of a system being developed. But given the scope and the limited resources including time constraints testing would be carried out only for the major components and requirements.

In the current scenario in which the resources are limited including the limited time availability for the testing phase, it has been decided to carry out testing manually and all the tests would be manual testing and there will be no automated testing for Phase 0. However provision for automated tests and more rigorous and regression testing could be provided in the future as per client requirements.

The following sub sections will provide details of the features which will be tested and features which will not be tested in the scope of the project.

3.1 Features to be tested

Testing would be carried out for all the functional requirements of the various components of the Unlimited Well including MUW; LUW and PUW for the Phase 0. Also the integrated testing for the components of phase 0 will be executed.

3.2 Features not to be tested

Testing would be carried out only for the functional requirements for the various components in Iteration P0. All the design requirements and interface requirements would not be in the scope of this project. Also the functional requirements for iterations Phase 1 and Phase 2 would not be carried out.

3.3 Pass/ Fail Criteria

The various sub-systems would be tested with the test cases mentioned in the Unit testing phase. The test cases are such designed that the results would be tracked with a PASS or a FAIL for the respective functional requirement of the test case. In case of a FAIL, the failure would be analyzed and the report would be discussed and shared with the developers and the necessary corrections would be incorporated. In a scenario when all the test cases are PASS, the current iteration would be cleared and would signal the transition of the project to the next phase.

4. Unit Testing

In this phase, each sub-system would be tested for its functional features. i.e, MUW, PUW and LUW would be tested individually. These tests would be carried out in each of the three phases of the project —Phase 0, Phase 1, and Phase 2. The following sub sections would provide information about the test cases to be carried on for the individual test cases. The test cases are in a table format for better understanding and also for future usage in Test Report Document.

4.1 MUW

Req Num	Test Case Number	Phase	Test Description	Remarks
NF1.1	1	P0	Is Web portal working in Windows	
NF1.1	2	P0	Is Web portal working in Linux	
NF1.1	3	P0	Is Web portal working in Mac	
NF1.1	4	P0	Is Web portal working in IE browser.	
NF1.1	5	P0	Is Web portal working in Google Chrome	
NF1.1	6	P0	Is Web portal working in Mozilla Firefox	
NF1.1	7	P0	Is Web portal working in Safari	
NF1.2	8	P0	Is the system globally accessible	Locations Selected-- Chalmers campus, Lindolmen campus, Residential apartments
F1.1	9	P0	Are all products visible in the site	
F2.1	10	P0	Are product details available	
F2.1	11	P0	Are products classified properly	
F2.2	12	P0	Is the portal accessible at all times	
F2.2	13	P0	Is the user home page accessible home page at all times	
F2.3	14	P0	Does the portal have user activity	

			tracking system	
F2.3	15	P0	Is Purchase order of User tracked by LUW	
F2.10	16	P0	Is a registration option available for the customer on the web portal	
F2.10	17	P0	Is the web portal available in all local languages including English, Swedish, French, Portuguese, and Canton Chinese Languages.	
F2.8	18	P1	Does the portal support cancellation of orders	
F2.7	19	P1	Does the portal support customer notification system including delays in delivery	
F2.8	20	P1	Can the customer change his registration details in the portal	
F2.11	21	P1	Is there a delivery tracking system in the portal	
F2.12	22	P1	Can a customer unregister from the service and the portal.	
F2.13	23	P1	Is there a system to track and unregister fraud and cheating customers.	
F2.5	24	P2	Is there a feedback system for a product in the portal	
F2.5	25	P2	Is there a sales forecast based on a particular product sales.	
F2.13	26	P2	Are the local transportation or delivery information available in the portal.	

4.2 PUW

Req Num	Test Case Number	Phase	Test Description	Remarks
F3.1	1	P0	Is an order placed in MUW received by MUW.	
F3.2	2	P0	Is Placing of orders with the supplier working.	
F3.3	3	P0	Is a delivery note produced for an consignment	
F3.4	4	P0	Is financial system updated with data of every transaction	
F3.7	5	P0	Is database updated with product information	
F3.5	6	P1	Is a supplier booked for each order placed	
F3.5	7	P1	Is a supplier booking done based on the order delivery address	
F3.5	8	P1	Is a supplier/transporter booking done based on the cheapest possible transportation.	
F3.5	9	P1	Is the supplier booked based on the product availability with the supplier	
F3.6	10	P1	Is the supplier quality constantly monitored.	
F3.6	11	P1	Is there a process of changing suppliers based on thier performance and quality of work	
F3.8	12	P2	Is the supplier rated as per performance.	
F3.8	13	P2	Are the good suppliers duly credited with promotional activities	
F3.8	14	P2	Are deadlines and profit margins reasonable for suppliers	

4.3 LUW

Req Num	Test Case Number	Phase	Test Description	Remarks
F4.1	1	P0	Is a transporter booked for each order placed	
F4.1	2	P0	Is a transporter booking done based on the order delivery address	
F4.2	3	P0	Is a transporter booking done based on the cheapest possible transportation.	
F4.2	4	P0	Is delivery of the product reported correctly.	
F4.4	5	P1	Is there a delivery tracking system in the portal	
F4.3	6	P2	Is there a delivery tracking system in the portal	
F4.3	7	P2	Are cancellations of orders handled	
F4.3	8	P2	Is there a back up plan for a transporter unavailability	
F4.7	9	P2	Is the transporter quality constantly monitored.	
F4.7	10	P2	Is there a process of changing transporters based on thier performance and quality of work	

5. Integration Testing

Integration testing involves testing the whole system integrated including the subsystems MUW,PUW and LUW integrated and the overall system functionality would be tested. Integration testing would be done at the end of each iteration and also after the final iteration i.,e Phase 3 in this project.

6. Test Reporting

There would be an additional document for each phase of the project and all the test cases in the particular phase would be tested and reported in the template in the document. Also any remarks during testing would be reported in the Test Report document.