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Test Plan for Testing the New Checkout flow

Introduction

Background.

My team is working on a web shop that sells sporting goods to end customers. To increase conversions a new checkout flow was built and is ready for testing on a staging environment. The target is to comprehensively test the checkout flow to detect any issues in regards to the functionality of the application, the ui/ux, the performance etc.

Objectives

The objectives of this testing are as follows;
- To develop test cases in scope of the testing of the checkout flow.
- To test the new checkout flow that was built.
- To report any issues that have been realized or found while testing the checkout flow.
- To document the outcomes of the test and this includes the reports.

Audience

Role	Name	Email/Telephone	Organization/Deptement / Team
Project Manager	-	-	-
Product owner	-	-	-
Engineering manager	-	-	-

QA Lead	-	-	-
QA Engineer (s)	Allan Tumu	allan.tumu@test.com	On
Development Team	-	-	-

Testable Items

Scope

This test activity focuses on the following;

1. Test the UI of the checkout flow (UI tests). It should conform to all the design standards set by the Design team.
2. Test the functionality of the checkout flow (Functional tests). This should ensure all individual components and the whole feature at large are well functioning and achieve the desired results.
3. End to End tests. The aim here is to test the whole check out flow from point A to point Z in a manner that replicates the user behavior
4. Acceptance tests. This is to verify that the checkout flow satisfies the business requirements and this will also be executed in a manner that replicates the user behavior.
5. Smoke tests. This will involve a set of tests that are not mainly in the checkout flow but might be directly or indirectly related to the checkout flow. The aim here is to ensure that the checkout flow did not break any of the existing functionality in other flows.

Out of Scope.

This section highlights the tests that will not be performed in this scope by the QA team.

Item	Description
Load testing	This will be performed by the Devops team by sending a spike of requests to the system and ensuring it works

Penetration testing	This will be performed in depth by the security team.

Detailed Test Approach.

Testing to perform

1. Whitebox Testing - This will involve testing against known specific requirements that were listed by the product team. These specifications are listed in Confluence and the designs and the flow diagrams are in Zeplin. Using these, we shall come up with test cases that we will use to test to make sure that the checkout flow is functioning as expected
2. Blackbox Testing - This will involve performing a series of exploratory tests to find defects and also make sure that the application is working as expected. This will involve a couple of tests whose aim is to break the application or find some missed edge cases.

Test Case Design

Test cases will be developed based on the acceptance criteria and the specifications shared by the product team. These should cover the whole check up flow and once they are developed, they must be reviewed by team members to suggest changes and also ensure that no parts of the tests have been missed.
The template should look as follows;

Prepared By								
Date								
Scenario ID			Scenario Description					
Test Case ID	Test Case Description	Precondition	Test Data	Expected Result	Post Condition	Actual Result	Status	Comments

Test Scheduling.

Once all the test cases are in place, we shall schedule our testing. This involves the splitting of test execution according to priority and time frame. The goal is to comprehensively cover most of the application and most of the possible scenarios in the check out flow..

1. In this phase, we shall begin by setting up the test environment and making sure that all the test data and everything else needed to perform tests is already in place. Then we shall proceed by testing individual tickets and components associated with the checkout flow to ensure that each component meets a certain level of acceptability as per specs. (Phase 1)

2. Once all the Jira tickets associated with the checkout feature have been tested and validated. We shall test the checkout flow and how well it is integrated with the back end. Are there some errors, missed cases or wrong information being returned? (Phase 2)

3. After checking how the front end communicates with the back end, we shall start on the end to end tests specifically for the check out flow. These will involve checking out this feature fully and considering all the possible scenarios a user could execute in this case. (Phase 3)

4. Phase 4 will involve the execution of smoke and regression tests to make sure that after the addition of the improved check out flow, we did not break anything in regards to core functionality or it didn't break any of the existing functionality.

5. Phase 5 will involve performing a sign off where we shall run another round of regression and smoke tests to ensure that nothing was missed before we ship our product to the end users.

NB: Some of the phases can be run concurrently or in parallel, that is if one phase doesn't block the other and no step is being missed in our testing phase. This can help reduce the time taken to sign off the product for release.

Test Phase	Date	Duration (sprints)	wk1-wk4	wk5-wk9	wk10-wk14	wk14-wk18	wk19-wk22
Phase 1	-	2	🟩				
Phase 2	-	2		🟩			

Phase 3	-	1					
Phase 4	-	2					
Phase 5	-	1					

Test data build

Test data will involve the test using valid test credit cards and these are already available at;

- Test credit card details from Adyen:

  https://docs.adyen.com/development-resources/test-cards/test-card-numbers

Test Environment.

The tests will be executed on the staging environment which can be found at;

- Staging environment: https://staging-beta.on-running.com

  There is basic auth in place to keep out bots, use username: on and password: trend to gain access.

Test Execution

The execution of tests will be;

1. Based on test cases that were developed. This will involve marking the tests using the PASS/FAIL criteria. It is from this that a report will be generated to know how many test cases passed and how many tests failed.
2. Exploratory tests. This will involve testing without "known" user requirements so as to break the application. The QA engineer is expected to employ their analytical mindset and also use techniques like boundary tests, equivalence partitioning and many others.

Bug reporting.

In the process of test execution, if any defects are found. They should be documented. This means creating a bug report for the defect found. The bug report should follow this format;

Defect id	
Reporters Name	

Defect reported date	
Defect Title	
Defect Description	
Release/Build version	
Environment	
Actual Result	
Expected Result	
Steps to reproduce	
Priority	
Severity	
Status	
Configurations	
Screenshots/Videos (if any)	

NB: This is a living document and can be updated at any time depending on the changes and requirements from the business side, timeline improvements and the techniques employed.

Test Cases

Scenario 1 (SC_001). Validate that a user can successfully checkout a product

- Verify that a user can select category (Men, Women, Technology, Stories, Athletes)
    * Expected Condition: User should be able to successfully Select category

- Verify that products are displayed when a user chooses a certain category
    * Expected Condition: Only products from a particular category should be displayed once a user selects a category

- Verify that when a user hovers over a product, the quick add button is showed
    * Expected Condition: Quick add button should be displayed when a user hovers on a product.

- Verify that size selection is shown when a user taps quick add.
    * Expected Condition: The available sizes should be shown when a user taps the quick add button

- Verify that the product is added to cart when a user selects the shoe size.
    * Expected Condition: Product should be added to cart when user selects shoes size

- Verify that check out button is active and user proceeds to checkout once clicked.
    * Expected Condition: The checkout button should be active and should proceed to the checkout screen once clicked.

- Verify that the user can add the shipping information..
    * Expected Condition: user should be able to add all the required information.

- Verify that the show shipping options button becomes active when a user fills in all the required information.
    * Expected Condition: Show shipping options button should become active when the user fills in all the required information.

- Verify that the user is shown the Delivery method when they click Show Delivery Options.
    * Expected Condition: Delivery methods should be displayed when a user taps on Show Delivery options.

- Verify that the user proceeds to Payments when they click Continue to Payment.
 * Expected Condition: User should be directed to the payment screen when they click on the Click on the Continue Payment screen.

- Verify that the user can place order after adding the card details
 * Expected Condition: User should be able to add card details and place an order.

- Verify that the success message is shown when use successfully places an order
 * Expected Condition: Success message should be shown when the user successfully places an order.

Test Steps

Prepared By		Allan Tumuhimbise						
Date		7th July 2022						
Scenario ID	SC_001			Scenario Description	**Validate that a user can successfully place Order**			
Test Case step	Test Case Description	Pre-condition	Test Data	Expected Result	Post Condition	Actual Result	Status	Comments
1	Launch the on-running application	Internet connection	Staging login && Password	The On-running staging application should open in the browser.	Internet connection	Staging application successfully opens	PASS	
2	Input the staging username and password	Internet connection	Staging login && Password	User should be able to input the staging username and password to sign in	Direction to the Landing page.	Users can successfully input the username and password to sign in.	PASS	
3	Select Category by	Internet connection	-	User should be able to	Products under	User can successfully	PASS	

				successfully select category.	selected category should be displayed	select a specific category..		
	tapping Men							
4	Hover on one of the products	Products should be displayed on screen	-	The quick add button should be displayed when a user hovers on one of the products.	Quick Add button being shown on card where the user hovered.	Quick add button is shown when the user hovers on one of the products	PASS	
5	Tap the Quick Add button	Hovered product	-	The sizes available for that product should be displayed.	Display of the multiple sizes available	The sizes available for the product are displayed when the user clicks on the quick add button.	PASS	
6	Select a size eg 43	Sizes displayed	-	Product should be added to cart when the user selects the desired size	Cart displayed with product added to cart	The product is added to cart when a user selects a size	PASS	
7	Click checkout button	Checkout button should be active and displayed	-	User should be directed to the checkout screen.	Shipping Information screen	User is directed to the checkout screen when they click on the Checkout button	PASS	
8	Enter email address	Email address field should be displayed.	emai_addre ss	User should be able to enter valid email address	Continue to Shipping button becomes active	The Continue to shipping button becomes	PASS	

						active when a user inputs the email		
9	Tap Continue shipping	Continue to shipping button should be active and displayed	-	The shipping information form should be displayed	Display of the shipping information form	The shipping information input form is displayed	PASS	
10	Input the shipping information	Shipping information form should be displayed.	first_name, last_name, street_addre ss, post_code, city, phone	User should be able to input the required shipping information.	Show shipping option button becoming Active	User is able to input the shipping information	PASS	
10	Tap Show shipping options.	The shipping options button should be displayed and active	-	The shipping options should be displayed	Continue to Payment button becomes active.	User is able to Tap Show shipping option and shipping options are displayed.	PASS	
11	Tap Continue to Payments	Continue to payment button should be displayed and active	-	The card details input form should be displayed.	Checkout button displayed but not active	The card details input form is displayed when a user inputs the card details	PASS	
12	Input the card details	Card details input form should be displayed	card_numbe r, expiry_date, cvv, card_holder _name	User should be able to input the card details.	Place your Order button Active	User is able to input the Card details	PASS	
13	Tap place your order	Place your Order button Active	-	User order is placed	Success message/ Thank you message	User successfully places order	PASS	

Scenario 2 (SC_002). Validate that a user can't successfully checkout a product without providing required information (Email).

- Verify that a user can select category (Men, Women, Technology, Stories, Athletes)
    * Expected Condition: User should be able to successfully Select category

- Verify that products are displayed when a user chooses a certain category
    * Expected Condition: Only products from a particular category should be displayed once a user selects a category

- Verify that when a user hovers over a product, the quick add button is showed
    * Expected Condition: Quick add button should be displayed when a user hovers on a product.

- Verify that size selection is shown when a user taps Quick add.
    * Expected Condition: The available sizes should be shown when a user taps the quick add button

- Verify that the product is added to cart when a user selects the shoe size.
    * Expected Condition: Product should be added to cart when user selects shoes size

- Verify that the checkout button is active and user proceeds to checkout once clicked.
    * Expected Condition: The checkout button should be active and should proceed to the checkout screen once clicked.

- Verify that the user can't proceed without adding the shipping information..
    * Expected Condition: Error "Please enter a valid email address should be showed"

Test Steps

Prepared By		Allan Tumuhimbise		
Date		7th July 2022		
Scenario ID	SC_002		Scenario Description	**Validate that a user can't successfully place Order without providing required information (email address)**

Test Case step	Test Case Description	Pre-condition	Test Data	Expected Result	Post Condition	Actual Result	Status	Comments
1	Launch the on-running application	Internet connection	Staging login && Password	The On-running staging application should open in the browser.	Internet connection	Staging application successfully opens	PASS	
2	Input the staging username and password	Internet connection	Staging login && Password	User should be able to input the staging username and password to sign in	Direction to the Landing page.	Users can successfully input the username and password to sign in.	PASS	
3	Select Category by tapping Men	Internet connection	-	User should be able to successfully select category.	Products under selected category should be displayed	User can successfully select a specific category..	PASS	
4	Hover on one of the products	Products should be displayed on screen	-	The quick add button should be displayed when a user hovers on one of the products.	Quick Add button being shown on card where the user hovered.	Quick add button is shown when the user hovers on one of the products	PASS	
5	Tap the Quick Add button	Hovered product	-	The sizes available for that product should be displayed.	Display of the multiple sizes available	The sizes available for the product are displayed when the user clicks on the quick add button.	PASS	

6	Select a size eg 43	Sizes displayed	-	Product should be added to cart when the user selects the desired size	Cart displayed with product added to cart	The product is added to cart when a user selects a size	PASS	
7	Click checkout button	Checkout button should be active and displayed	-	User should be directed to the checkout screen.	Shipping Information screen	User is directed to the checkout screen when they click on the Checkout button	PASS	
8	Leave email address blank	Email address field should be displayed.	-	Email address field blank	Continue to Shipping button becomes inactive but clickable	Email address field is blank	PASS	
9	Tap Continue shipping	Continue to shipping button should be inactive and displayed	-	Error, Enter valid email address should be displayed	Error should be displayed	Error "Please enter a valid email is displayed"	PASS	

Scenario 3 (SC_003). Validate that a user can't successfully checkout a product without providing Shipping information (first_name, last_name, street_address, post code, city, phone)

- Verify that a user can select category (Men, Women, Technology, Stories, Athletes)
    * Expected Condition: User should be able to successfully Select category

- Verify that products are displayed when a user chooses a certain category
    * Expected Condition: Only products from a particular category should be displayed once a user selects a category

- Verify that when a user hovers over a product, the quick add button is showed

* Expected Condition: Quick add button should be displayed when a user hovers on a product.

- Verify that size selection is shown when a user taps Quick add.
    * Expected Condition: The available sizes should be shown when a user taps the quick add button

- Verify that the product is added to cart when a user selects the shoe size.
    * Expected Condition: Product should be added to cart when user selects shoes size

- Verify that the Checkout button is active and user proceeds to checkout once clicked.
    * Expected Condition: The checkout button should be active and should proceed to the checkout screen once clicked.

- Verify that the user can't proceed without adding the shipping information..
    * Expected Condition: Error to show that required information should be filled in, should be shown.

Test Steps

Prepared By		Allan Tumuhimbise						
Date		7th July 2022						
Scenario ID	SC_003			Scenario Description	Validate that a user can't successfully checkout a product without providing Shipping information (first_name, last_name, street_address, post code, city, phone)			
Test Case step	Test Case Description	Pre-condition	Test Data	Expected Result	Post Condition	Actual Result	Status	Comments
1	Launch the on-running application	Internet connection	Staging login && Password	The On-running staging application should open in the browser.	Internet connection	Staging application successfully opens	PASS	
2	Input the staging username and	Internet connection	Staging login && Password	User should be able to input the staging	Direction to the Landing page.	Users can successfully input the username	PASS	

				username and password to sign in		and password to sign in.		
3	Select Category by tapping Men	Internet connection	-	User should be able to successfully select category.	Products under selected category should be displayed	User can successfully select a specific category..	PASS	
4	Hover on one of the products	Products should be displayed on screen	-	The quick add button should be displayed when a user hovers on one of the products.	Quick Add button being shown on card where the user hovered.	Quick add button is shown when the user hovers on one of the products	PASS	
5	Tap the Quick Add button	Hovered product	-	The sizes available for that product should be displayed.	Display of the multiple sizes available	The sizes available for the product are displayed when the user clicks on the quick add button.	PASS	
6	Select a size eg 43	Sizes displayed	-	Product should be added to cart when the user selects the desired size	Cart displayed with product added to cart	The product is added to cart when a user selects a size	PASS	
7	Click checkout button	Checkout button should be active and displayed	-	User should be directed to the checkout screen.	Shipping Information screen	User is directed to the checkout screen when they click on the Checkout	PASS	

						button		
8	Enter email address	Email address field should be displayed.	emai_addre ss	User should be able to enter valid email address	Continue to Shipping button becomes active	The Continue to shipping button becomes active when a user inputs the email	PASS	
9	Tap Continue shipping	Continue to shipping button should be active and displayed	-	The shipping information form should be displayed	Display of the shipping information form	The shipping information input form is displayed	PASS	
10	Leave the shipping information fields blank	Shipping information form should be displayed.	-	Errors to update shipping information should be displayed..	Errors showed and user can't proceed to next step	Error to update update shipping information are displayed	PASS	