Online Purchasing System

ABC Supermarket Requirements Specification

Version 1.0

Contents

1. Supermarket Purchasing Process User Case

FR ID	**FR1 Supermarket Purchasing process** FRI1.1 Create an new user account on the supermarket website or mobile application; FRI1.2 Purchase products on the supermarket website or mobile application;

Purpose	**Functionality to allow the Customer to make a new purchase of products they require by:**
	▪ **Creating a user account and making purchases on the supermarket website or mobile application**
	    ○ **Selecting their desired items;**
	    ○ **Adding their delivery address;**
	    ○ **Adding their payment details;**
	    ○ **Confirming their order to make a purchase;**
	    ○ **Receiving their products after delivery;**

Actors	**Internal Actors**	**External Actors**
	▪ Packer ▪ Delivery Personnel	▪ Customer

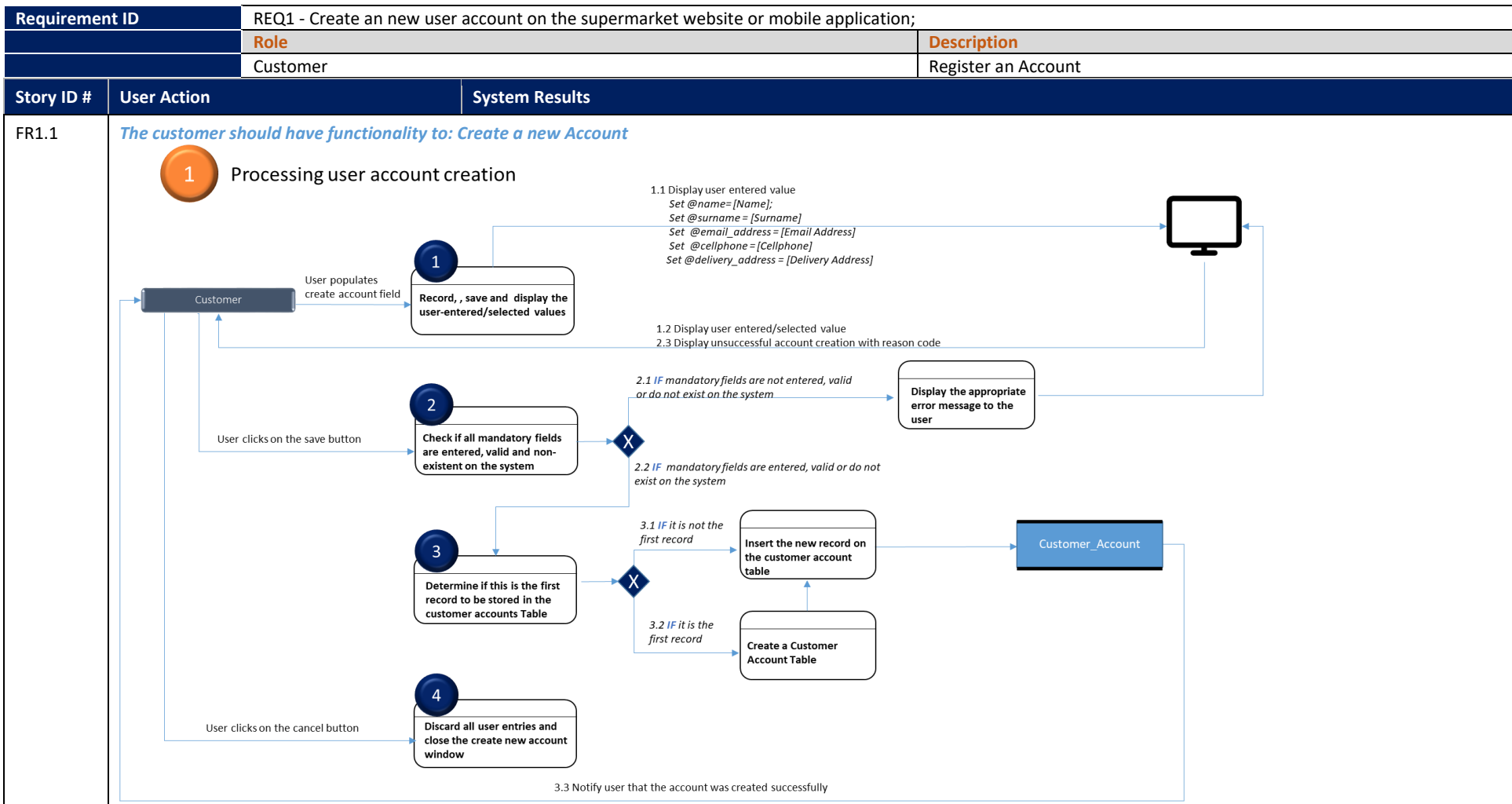|	
Trigger	▪ Customer runs out of products and requires to stock up; ▪ Resellers need stock for their business;
Pre-Conditions	▪ Customer runs out of products and requires to stock up; ▪ The customer has a reliable internet connection ▪ The customer has a registered account with the supermarket website or mobile application; ▪ The customer has added payment and delivery details to their account; ▪ The customer has logged into their account;
Basic Flow	▪ The customer visits the supermarket website or mobile application's homepage with their login details; ▪ The customer navigates through the various product categories or uses the search function to find the desired items; ▪ The customer selects the desired items and adds them to the shopping cart; ▪ The customer reviews the shopping cart to ensure all desired items and quantities are correct; ▪ The customer proceeds to the checkout process; ▪ The customer enters a promotional code (if applicable); ▪ The system quantifies the promotional code and applies it if successful; ▪ The customer selects the preferred delivery address from the available options; ▪ The systems informs the customer of the next delivery time available; ▪ The customer selects the preferred payment method, either credit/debit card, online banking, or mobile payment options;

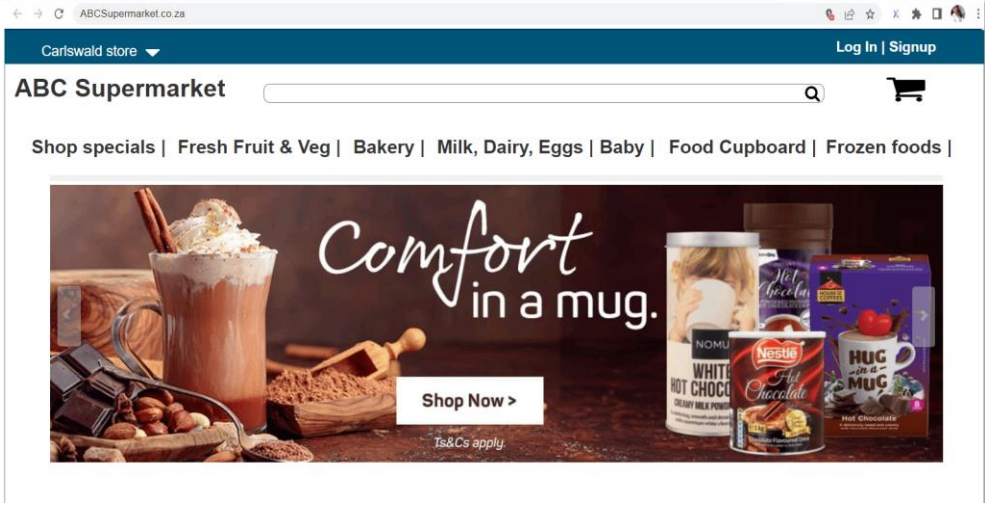|	
	- If the selected payment method is credit/debit card or mobile payment, the customer enters the required card or mobile payment details; - The customer reviews the order summary, delivery details, and payment information for accuracy; - The customer confirms the order; - The system validates the payment method and processes the payment; - The API(POST) will create the new payment confirmation record in the payments table when the payment is successful; - The systems generates a new order record in the system; - The customer receives an order confirmation containing the details of the order and estimated delivery time; - The Packer prepares the order for delivery; - The delivery personnel delivers the order to the customer's specified address within the specified time slot; - The customer receives and inspects the delivered items; **If** there are any issues with the delivered items, **Then** the customer contacts customer support for assistance; **Else** everything is satisfactory, **Then** the customer completes the purchasing process;
Exception Flows	**EF1 Invalid Payment Method:** - If the selected payment method is invalid or cannot be processed, the customer is notified and prompted to select an alternative payment method.; **EF2 Incorrect Delivery Address:** - If the customer selects an invalid delivery address, the system notifies the customer and prompts them to choose a valid one; **EF3 Change in delivery time:** - If the time suggested by the system for the next delivery time available lapses, the system notifies the customer on the next available time; **EF4 Unavailable items:** - If any of the selected items are not available, the system notifies the customer and prompts them to choose an alternative; - If customer chooses not to select alternatives refund the customer on the items they did not receive; - If the stock manager identifies a significant stock shortage, they may need to order more items for stock to be available at all times; **EF4 Invalid promotional Code:** - If the promotional code is invalid , the system notifies the customer and prompts them to enter a valid promotional code;
Post-Conditions	- The customer's chosen payment method is charged for the order. - The customer's account is updated with the order details. - The supermarket's inventory is updated accordingly. - The order is marked as delivered in the system.

2. Supermarket Purchasing Process Functional Requirements Specification

FR ID	FR1 Supermarket Purchasing process				
Description	The customer should be able to create an account, add delivery address, add payment details, purchase desired products and the purchased items gets delivered to their doorstep at the end of the process.				
Rules	▪ Only registered customers have access to the online supermarket purchasing system; ▪ Only valid customer payment details are required;				
Test Scope					
Key Dependencies	▪ Customer user account creation; ▪ Customer makes purchases on the online supermarket website or mobile app ▪ Customer receives purchased products				

Trigger(s)	**Supermarket online purchasing process**
	▪ Customer runs out of products and requires products;
	▪ Resellers need stock for their business for convenience;
	    o Customer selects desired items
	    o Customer confirms shopping cart
	    o Customer adds payment and delivery details				

Test Scenarios	**REQ_ID**	**Functionality**	**Roles/Actors**	**AD Group**	**Requisite Access**
	REQ1 - (FR1.1)	Create an new user account on the supermarket website or mobile application;	Customer	External User	Create New Account window: User must be able to: ▪ Read and Write ▪ Submit and Cancel
	REQ2.1 - (FR1.2)	Purchase products on the supermarket website or mobile application;	Customer	External User	Purchasing home screen window: User must be able to: ▪ Read and Write ▪ Submit and Cancel
	REQ2.2 - (FR1.2)	Receive order details after payment confirmation	Packer	Internal User	Purchasing home screen window: User must be able to: ▪ Read and Write
Key Inputs and Outputs	**Inputs**		**Outputs**		

	User selection and input:	User account creation confirmation;
	▪ Customer registration details (name, surname, email, contact number, address, etc.)	▪ Product search results;
	▪ Product search queries	▪ Product details (name, description, price, availability, etc.);
	▪ Product selection and quantity	▪ Shopping cart summary;
	▪ Delivery address	▪ Order confirmation message;
	▪ Payment method (credit/debit card, online banking, cash on delivery, etc.)	▪ Delivery schedule details;
	▪ Promotional codes or discounts (if applicable)	▪ Invoice or receipt (via email or downloadable);
		▪ Payment confirmation message;
		▪ Order status updates (processing, dispatched, delivered);
		▪ Customer support information for queries or issues

3. Sample example (REQ1) of requirements specification details

Requirement ID	REQ1 - Create an new user account on the supermarket website or mobile application;	
	Role	**Description**
	Customer	Register an Account

Story ID #	User Action	System Results
FR1.1	*The customer should have functionality to: Create a new Account*	

① Processing user account creation

1.1 Display user entered value
Set @name=[Name];
Set @surname = [Surname]
Set @email_address = [Email Address]
Set @cellphone = [Cellphone]
Set @delivery_address = [Delivery Address]

1 — User populates create account field — Record, , save and display the user-entered/selected values

Customer

1.2 Display user entered/selected value
2.3 Display unsuccessful account creation with reason code

2.1 **IF** mandatory fields are not entered, valid or do not exist on the system

Display the appropriate error message to the user

2 — User clicks on the save button — Check if all mandatory fields are entered, valid and non-existent on the system

2.2 **IF** mandatory fields are entered, valid or do not exist on the system

3.1 **IF** it is not the first record

Insert the new record on the customer account table

Customer_Account

3 — Determine if this is the first record to be stored in the customer accounts Table

3.2 **IF** it is the first record

Create a Customer Account Table

4 — User clicks on the cancel button — Discard all user entries and close the create new account window

3.3 Notify user that the account was created successfully

6

Story ID #	User Action	System Results
	The customer launches supermarket website or mobile application by: Opening the browser>> launch the supermarket website Or Launch the homepage on the mobile application	▪ The system should launch and display the homepage window, SYS_WND1;
	The customer clicks on the sign-up hyperlink	▪ The system should launch and display the user account creation window. SYS_WND2

Story ID #	User Action	System Results
		Create New Account Name* 1 Surname* 2 Email* 3 Cellphone* 4 Delivery Address* 10 □ I agree to the Terms and Conditions 5 9 □ I am not a robot 6 Save 7 Cancel 8
	The customer enters their name on the name text field	▪ The name entered should be displayed on the name text field;
	The customer enters their surname on the surname text field	▪ The surname entered should be displayed on the surname text field;
	The customer enters their email address on the email address text field	▪ The email address entered should be displayed on the email text field;
	The customer enters their contact no. on the contact no. numeric field	▪ The contact no. entered should be displayed; ▪ The system should only allow numeric values
	The customer enters their delivery address on the delivery address text field	▪ The delivery address entered should be displayed on the delivery address text field;

Story ID #	User Action	System Results
	The customer selects the save button	■ The system should: Check if this is the first record of the user accounts created, **IF** it is (id = 1) **THEN** the system should create a customer account table CREATE TABLE CustomerAcc (id INT PRIMARY KEY, name VARCHAR(50), surname VARCHAR(50), email_address VARCHAR(100), contact_number VARCHAR(20), delivery_address VARCHAR(100),); **ELSE** this is not the first record of the user accounts created (id≠1) **THEN** insert the new record created into the Customer account table INSERT INTO CustomerAccount (id, name, surname, email_address, contact_number, delivery_address) VALUES (1, '', '', '', ", '');
	The customer selects the cancel button	■ The system should discard all the user entries on the user account creation window;