

Business Requirement

BR#	Module Name	Applicable Roles	Description
BR01	Cart Management	Customer	Users should be able to manage items in their shopping cart including quantity adjustments
BR02	Cart Management	Customer	Users should be able to see cart total updates in real-time based on quantity changes
BR03	Payment & Promotions	Customer	Users should be able to apply membership discounts during checkout
BR04	Payment & Promotions	Customer	Users should be able to combine membership with one additional promotion
BR05	Payment & Promotions	Customer	Users should be able to collect LINE OA points (10 drinks get 1 free)
BR06	Payment & Promotions	Student	Mahidol students should receive 5 baht discount on purchases
BR07	Membership Validation	Customer	System should validate membership numbers and display points
BR08	Membership Validation	Customer	System should handle invalid membership numbers with clear error messages

Technical Requirement Document

TR01	System must update cart quantity in real-time
TR02	System must recalculate cart total instantly after quantity changes
TR03	System must validate membership number existence in database
TR04	System must interface with membership database for points display
TR05	System must allow only one promotion combined with membership
TR06	System must track LINE OA drink collection progress
TR07	System must verify student status for Mahidol discount
TR08	System must display clear error messages for invalid memberships
TR09	System must calculate correct discounts based on applied promotions

Requirement Traceability Matrix

TestCase #	BR#	TR#	Test case	Test Steps	Test Data	Expected output
Cart_01	BR01, BR02	TR01, TR02	Verify cart item quantity increase functionality	1. Navigate to cart page 2. Locate item quantity controls 3. Click increase quantity button 4. Verify quantity update	Item: Dirty Initial Quantity: 1 Action: Click '+' button	Quantity is showed 2
Cart_02	BR01, BR02	TR01, TR02	Verify cart item quantity decrease	1. Navigate to cart page 2. Verify initial quantity 3. Click decrease button 4. Verify quantity update	Item: Dirty Initial Quantity: 2 Action: Click '-' button	Quantity is showed 1
Pay_01	BR03, BR04, BR05	TR05, TR06, TR09	Membership with LINE OA Promotion	1. Navigate to payment page 2. Enter membership number 3. Click apply button 4. Select LINE OA promotion 5. Verify discounts	Membership: 0625916127 Promotion: LINE OA 10+1 Item: Dirty	
Pay_02	BR03, BR04, BR06	TR05, TR07, TR09	Membership with Student Discount	1. Navigate to payment page 2. Enter membership number 3. Click apply button 4. Select student discount 5. Verify discounts	Membership: 0625916127 Promotion: Student 5\$ off Item: Dirty	
MEM_01	BR07	TR03, TR04	Verify valid membership number processing	1. Navigate to payment page 2. Enter valid membership 3. Click apply button 4. Verify points display	Membership: 0123456789	
MEM_02	BR08	TR03, TR08	Verify invalid membership number handling	1. Navigate to payment page 2. Enter invalid membership 3. Click apply button 4. Verify error message	Membership: 8888888888	