Use Case IR-UC1 of IcyReward

UC ID and Name:	IR-UC1: Gift Redemption		
Primary Actor:	Visitor	Supporting Actors:	IcyBand, Kiosk System, Visit Logging System
Trigger:	Unless it is the first step in the flow		
Description:	Visitors of IcyWorld may use their IcyBand to redeem gifts after visiting the attractions. The gift redemption kiosk systems will check the visitors' Reward Point and dispense the gifts according to visitors' choice.		
Preconditions:	PRE-1: The visitor needs to have their band with them at the kiosk to redeem gifts. PRE-2: The visitor needs to have collected Reward Points when visiting the attractions.		
Postconditions:	POST-1: The visitor gets the gift chosen. POST-2: Redemption record is saved. POST-3: Corresponding Points are deducted from the IcyBand.		
Basic Flow:	1. An IcyWorld visitor arrives at the park's Gift Shop with their NFC band. 2. The visitor taps the NFC band at the kiosk, and the kiosk validates the IcyBand. 3. The system shows Reward Points earned during the day. 4. The visitor then browses all gift items including their name tag, prices, and description; then correspondingly indicates the items to add to the shopping court. Repeat step 3 until visitor has no more gifts to add into cart. 5. After adding the items, the visitor proceeds to a checkout page to confirm the transaction. 6. On the checkout page, the system shows total points needed for redemption for the visitor to confirm. 7. Finally, the user then clicks "Finish". The corresponding points will then be deducted from the visitor's account, and the gifts chosen will be dispensed by the kiosk system. 8. System records the transaction, updating the remaining stock amount for the gift.		

Extensions:	*a. At any time, System fails when visitor is operating: To support recovery and accurate accounting, ensure all transaction sensitive state and events can be recovered from any step of the scenario.
	  a1. Visitor re-taps the IcyBand at the kiosk.
	  a2. System reconstructs prior state. If unable, records the error, and enters a clean state (with empty shopping cart and the Reward Points unchanged).
	
	 *b. At any time, an Icy World Staff wants to perform a privileged operation:
	  b1. Staff enters staff ID and password to enter privileged mode.
	  b2. Staff performs one privileged operation (e.g. Reward Point change, change the points required for a transaction, override a transaction, …).
	  b3. System returns to Visitor-mode.
	
	 *c. At any time, visitor chooses to quit the login status and leave, or the kiosk system ends the transaction due to overtime.		

2a. If the kiosk finds the IcyBand is not valid during validation, it shows the message to the visitor that the band is not valid and the visitor should contact a IcyWorld staff. Then, the system ends the interaction with the visitor and returns to the welcome page.

6a. The visitor wants to add more different items or change the quantities of gifts for redemption. The visitor will then click the item to return to the shopping page for further browsing items and adding items. (Go back to step 3)

6b. The system generated price is not wanted. (e.g. there is timely special discounts)
 6b1. The visitor notifies the staff.
 6b2. If applicable, the staff performs a privileged operation to change the checkout price.

6c. For any reason, the gift is out of stock,
 6c1. The system notifies the staff.
 6c2-1. The staff performs privileged operation to refill the kiosk. The visitor may resume the transaction.
 6c2-2. There is no more such gift available. The visitor may change other gifts for redemption.

7a. If the Reward Points earned is less than total points needed for redemption, the system prompts the message notifying Points not enough, and returns to the checkout page. (Go to step 5)

8a. If a specific gift has remaining amount lower than a specific level set by the IcyWorld park, the system notifies the staff for item restock.