

# 2030

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<b>Use Case</b>	<b>Show inventory</b>
<b>Actor</b>	Vending machine
<b>Purpose</b>	To show availability of all beverages
<b>Overview</b>	The vending machine displays all available beverages
<b>Type</b>	Supporting
<b>Cross Reference</b>	Inventory Management Module
<b>Pre-requisites</b>	User interacts with the vending machine
<b>Typical Course of Events</b>	1. Vending machine shows all available beverages
<b>Alternative Course of Events</b>	
<b>Exceptional Course of Events</b>	

<b>Use case</b>	<b>Select beverage</b>
<b>Actor</b>	User
<b>Purpose</b>	To allow users to select a beverage from the vending machine
<b>Overview</b>	Users select a beverage
<b>Type</b>	Primary
<b>Cross Reference</b>	System Operations
<b>Pre-requisites</b>	
<b>Typical Course of Events</b>	1. User selects a beverage
<b>Alternative Course of Events</b>	
<b>Exceptional Course of Events</b>	

Use Case	Check inventory
<b>Actor</b>	Vending machine
<b>Purpose</b>	To check the availability of a selected beverage
<b>Overview</b>	Vending machine checks whether the vending machine has stock
<b>Type</b>	Supporting
<b>Cross Reference</b>	Inventory Management Module
<b>Pre-requisites</b>	User selects a beverage
<b>Typical Course of Events</b>	1. System checks inventory → 3. Availability is displayed
<b>Alternative Course of Events</b>	<ol style="list-style-type: none"> <li>1. If beverage is out of stock, system checks other vending machines</li> <li>2. If another vending machine has the selected beverage, request pre-pay</li> </ol>
<b>Exceptional Course of Events</b>	1. If totally out of stock, displays out of stock

Use case	Purchase beverage
<b>Actor</b>	User
<b>Purpose</b>	To conduct purchase
<b>Overview</b>	Users inserts credit card to the vending machine and makes a payment
<b>Type</b>	Primary
<b>Cross Reference</b>	System Operations
<b>Pre-requisites</b>	User has a valid payment method
<b>Typical Course of Events</b>	<ol style="list-style-type: none"> <li>1. User inserts credit card</li> <li>2. Online banking transfers money</li> <li>3. Beverage dispensed</li> </ol>
<b>Alternative Course of Events</b>	<ol style="list-style-type: none"> <li>1. User inserts credit card</li> <li>2. Online banking transfers money</li> <li>3. Vending machine provides user with verification code and location</li> </ol>
<b>Exceptional Course of Events</b>	<ol style="list-style-type: none"> <li>1. Payment fails due to insufficient funds → 2. Transaction is canceled</li> </ol>

<b>Use case</b>	<b>Prepay</b>
<b>Actor</b>	User
<b>Purpose</b>	User receives beverage that the user purchased
<b>Overview</b>	Users goes to the directed vending machine and inserts verification code
<b>Type</b>	Primary
<b>Cross Reference</b>	System Operations
<b>Pre-requisites</b>	User has a valid verification code
<b>Typical Course of Events</b>	<ol style="list-style-type: none"><li>1. User inserts verification code</li><li>2. Beverage dispensed</li></ol>
<b>Alternative Course of Events</b>	
<b>Exceptional Course of Events</b>	<ol style="list-style-type: none"><li>1. Incorrect verification code</li><li>2. No beverage dispensed</li></ol>

<b>Use case</b>	<b>Update stock</b>
<b>Actor</b>	Vending machine
<b>Purpose</b>	Vending machine updates stock of beverages
<b>Overview</b>	Vending machine receives payment information and updates the number of beverages inside the vending machine
<b>Type</b>	Primary
<b>Cross Reference</b>	Inventory Management Module
<b>Pre-requisites</b>	User have transferred money through the vending machine
<b>Typical Course of Events</b>	<ol style="list-style-type: none"><li>1. User either conducts a purchase or a pre-purchase</li><li>2. The number of the selected beverage decreases</li></ol>
<b>Alternative Course of Events</b>	
<b>Exceptional Course of Events</b>	

<b>Use case</b>	<b>Dispense beverage</b>
<b>Actor</b>	Vending machine
<b>Purpose</b>	Vending machine provides user with the beverage
<b>Overview</b>	Vending machine dispenses the beverage that the user had selected
<b>Type</b>	Primary
<b>Cross Reference</b>	System operation
<b>Pre-requisites</b>	Either a proper purchase or a prepay with proper verification code had been received
<b>Typical Course of Events</b>	1. Vending machine dispenses the beverage
<b>Alternative Course of Events</b>	
<b>Exceptional Course of Events</b>	

# Glossary

Glossary	Description
Name:string	Name of the beverage
Stock:int	Number of beverage
Price:int	Price of beverage
Location:int	Location of another vending machine
Verification_code:string	Verification code for the pre pay

Test number	Test category	Description	Use case
1	Test printed menu	See if the vending machine shows proper types vending machines	1. show_inventory
2-1	Select beverage	Check the beverage inside the vending machine. See if that beverage could be purchased	2. select_beverage, check_inventory
2-2	Select beverage	Select beverage that only exists in other vending machines. Test if the vending machine attempts prepay	2. select_beverage, check_inventory
2-3	Select beverage	Select a beverage that no vending machine contain. Test if the vending machine alerts the user.	2. select_beverage, check_inventory
3-1	Purchase beverage	Insert a credit card to make a payment. Test whether credit card works.	3. purchase_beverage, prepay
3-2	Purchase beverage	Insert a non valid credit card. Test if the vending machine denies the purchase	3. purchase_beverage, prepay
3-3	Purchase beverage	Insert a credit card with insufficient cash	3. purchase_beverage, prepay

Test number	Test category	Description	Use case
4-1	Update stock	Test whether the number of beverage had been decreased	4. update_stock, check_inventory
4-2	Update stock	If the purchased beverage has no more stock left inside the vending machine, test whether it will notify it.	4. update_stock, check_inventory
4-3	Update stock	Test whether the beverage that only has one stock remaining with a preserved order could be purchased	4. update_stock, check_inventory, select_beverage
5-1	Prepay	Insert proper verification code on a proper vending machine. Test whether user can receive drink	5. prepay
5-2	Prepay	Insert improper verification code on a proper vending machine. Test whether the vending machines refuses purchase	5. prepay
5-3	Prepay	Insert proper verification code on an improper vending machine. Test whether purchase is denied	5. prepay
6	Receive beverage	Test whether user can receive drink when followed all proper steps	6. dispense_beverage