Use Case 1: Register Customer
Scope: Smart Store System
Primary Actor: Customer
Intention: Register a new customer to the smart store system.
Level: User Goal
Multiplicity: Multiple customers can register simultaneously.
Main Success Scenario:

1. Customer installs the smart store mobile application.
2. Customer opens the app and selects the registration option.
3. Customer enters personal details and payment information.
4. System validates the entered information.
5. System registers the customer and confirms registration via the app.

Use Case 2: Enter Store
Scope: Smart Store System
Primary Actor: Customer
Secondary Actor: Entry Gate, Camera
Intention: Allow a registered customer to enter the store.
Level: User Goal
Multiplicity: Multiple customers can enter simultaneously.
Main Success Scenario:

1. Customer scans their mobile device or pre-registered credit card at the entry gate.
2. System verifies the customer's registration.
3. Camera captures the customer's image.
4. System associates the image with the customer.
5. System opens the entry gate for the customer.

Use Case 3: Detect Item Pickup
Scope: Smart Store System
Primary Actor: Sensors (Weight, Pressure, Tag Reader)
Secondary Actor: Customer
Intention: Detect when a customer picks up an item from the shelf.
Level: Subfunction
Multiplicity: Multiple items can be picked up simultaneously.

Main Success Scenario:

1. Pressure sensor detects a change in pressure on the shelf.
2. Weight sensor measures the weight of the item lifted.
3. Tag reader sends the tag number of the item.
4. System identifies the item using the sensor information.
5. System associates the item with the customer detected by the cameras.

Use Case 4: Detect Item Return
Scope: Smart Store System
Primary Actor: Sensors (Weight, Pressure, Tag Reader)
Secondary Actor: Customer
Intention: Detect when a customer returns an item to the shelf.
Level: Subfunction
Multiplicity: Multiple items can be returned simultaneously.
Main Success Scenario:

1. Pressure sensor detects a change in pressure on the shelf.
2. Weight sensor measures the weight of the item placed back.
3. Tag reader sends the tag number of the item.
4. System identifies the item using the sensor information.
5. System updates the virtual cart to remove the item.

Use Case 5: Exit Store
Scope: Smart Store System
Primary Actor: Customer
Secondary Actor: Exit Gate, Payment Service
Intention: Allow a customer to exit the store and process payment.
Level: User Goal
Multiplicity: Multiple customers can exit simultaneously.
Main Success Scenario:

1. Customer scans their mobile device or pre-registered credit card at the exit gate.
2. System verifies the customer’s registration.
3. System calculates the total bill for the items in the virtual cart.
4. System processes the payment using the preferred payment service.
5. System opens the exit gate for the customer.

Use Case 6: Staff Restock Shelf
Scope: Smart Store System
Primary Actor: Staff
Secondary Actor: Sensors (Weight, Pressure, Tag Reader)
Intention: Allow staff to restock or organize items on the shelf.
Level: User Goal
Multiplicity: Multiple staff members can restock simultaneously.
Main Success Scenario:

1. Staff picks up an item from the storage area.
2. System identifies the item using the sensor information.
3. Staff places the item on the shelf.
4. System updates the inventory but does not update any virtual cart.

Use Case 7: Configure Payment Service
Scope: Smart Store System
Primary Actor: Customer
Intention: Allow a customer to set up their preferred payment service.
Level: User Goal
Multiplicity: One configuration per setup session.
Main Success Scenario:

1. Customer accesses the payment settings through the app.
2. Customer selects their preferred payment service.
3. Customer enters payment details.
4. System validates and saves the payment information.

Use Case 8: Handle No Internet Connection
Scope: Smart Store System
Primary Actor: Customer
Secondary Actor: Entry Gate, Exit Gate
Intention: Allow a customer to enter or exit the store without an internet connection.
Level: User Goal
Multiplicity: Multiple customers can enter or exit simultaneously.
Main Success Scenario:

1. Customer scans their pre-registered credit card at the entry or exit gate.
2. System verifies the customer’s registration using stored data.
3. System grants access to enter or exit the store.