

Customers Register

Name	Customers Register
Actors	Customers
Entry Conditions	The customer has the intention to buy the goods.
Event Flow	<ol style="list-style-type: none"> ① Customers download the application from the website. ② Customers click on “Register” button. ③ Customers complete the whole registration information and set login password. ④ The system validates the certification. ⑤ The system confirms the registration. ⑥ The system saves customers’ information.
Exit Condition	The systems save the information about customers who have been completed the registration.
Exception	<ol style="list-style-type: none"> ① The customers’ information has existed in the system. ② The customers’ codes are invalid. ③ The customers didn’t offer the full information about themselves. <p>If one of the above situations happen, the application will retrieve error messages to customers.</p>

Customers Login

Name	Customers login
Actors	Customers
Entry Conditions	The customers are already registered to the application.
Event Flow	<ol style="list-style-type: none"> ① Customers open the system. ② Customers compile the fields “Username” and “Password”. ③ Customers click on “Login” button. ④ The system opens the main page.
Exit Condition	<ol style="list-style-type: none"> ① The customers enter invalid Username. ② The customers enter invalid Password. <p>If one of the above conditions is detected, the application notifies the customers taking it back to the login screen.</p>

Make bookings

Name	Make bookings
Actors	Customers
Entry Conditions	The customers are already logged in the application successfully.
Event Flow	<ol style="list-style-type: none"> ① Customers select stores in the application which they intend to purchase goods. ② Customers click on “XXstore” button to confirm their selections. ③ Customers enter the information page which request customers to write their locations. ④ Customers click on “Save” button. ⑤ The system saves customers’ information. ⑥ The system send responses to customers to make confirmation.
Exit Condition	The customers receive their confirmations from system.
Exception	<ol style="list-style-type: none"> ① Customers’ information about their locations or expected visit duration is not complete. ② Customers forgot to click on “Save” button. <p>If one of the above situations happen, the customers’ bookings will not be successful.</p>

Distribute numbers

Name	Distribute numbers
Actors	Store managers & customers
Entry Conditions	<ol style="list-style-type: none"> ① Store managers open the door of store. (For the customers who can’t use the system.) ② The customers are already booked the store in system.
Event Flow	<ol style="list-style-type: none"> ① The system send alert to the customers whose information is already existed in the system offer their goods’ lists and expected visit duration. ② Customers consider the time they need to get to the shop from the place they currently are by pop-up notification, expected visit duration and goods’ lists, then send these to the store managers. ③ Store managers send some information about the current situation of store. ④ Customers see real-time estimation of waiting time and choose the expected concrete visiting time, then send to the store managers. ⑤ Store managers receive these confirmations and save to the system. ⑥ Store managers retrieve customers’ QRs code and numbers by displaying in the system.
Exit Condition	The customers receive their numbers or tickets.

Exception	① Customers who can't use the application, they arrive at the store and offer their goods-list and expected visit duration to the store managers. ② Store managers give the customers who can't use the application some tickets and arrange them to make some queues.
Special Requirement	Each QR matches only one number.

Customers queues

Name	Customers Queues
Actors	Store managers & Customers
Entry Conditions	① Customers have successfully reserved. ② Customers already have numbers or tickets. ③ Store managers open the door of store. ④ Customers have arrived at the door of the store.
Event Flow	① Store managers set the maximum number of people of store in a fixed duration. ② Customers open the app home page and find their number. ③ Customers click on "Number" which makes their numbers change to QRs automatically. ④ Customers show their QRs or tickets to the store managers. ⑤ Store managers check customers' numbers or tickets and the number of people in store currently if it more than the maximum number of people in store. ⑥ Store managers according to customers' goods lists to arrange them make queues if there too much people in the store currently. ⑦ Customers receive the suggestion of alternative slots for visiting stores from the store managers and follow the arrangement to enter the store.
Exit Condition	Each customer finds their positions if they must anticipate to make queues.
Exception	The customers who didn't arrive the store in time (the arrive time is more than 1 minute to their booking time), they won't allow to anticipate make queues.
Special Requirement	The length of queue is more than 5 meters for per person.

Check QRs or tickets

Name	Check QRs or tickets
Actors	Store managers & Customers
Entry Conditions	① Customers have already prepared their QRs or tickets. ② Customers arrived the store in expected arrival time.
Event Flow	① Customer who is calling by the store shows her/his ticket or QR to scanner. ② Store managers check customer's state of QR if it is valid.
Exit Condition	The customer's state of QR changes to invalid.
Exception	① The customers who didn't arrive the store in time (the arrive time is more than 1 minute to their booking time), their tickets or numbers change to be invalid. ② Customers can't enter the store if their QRs' states didn't change.

Enter the store.

Name	Enter the store.
Actors	Store managers & Customers
Entry Conditions	① Customers have already scanned their QRs or tickets. ② Customers' states of QRs are valid. ③ The maximum number of people of store is not reached.
Event Flow	① Customer shows her/his goods list after scanning QR or ticket. ② Store managers arrange customer to special field areas of store according to their goods lists. ③ Customer push the door of store and enter special field areas. ④ Customer QR's state changes to certified.
Exit Condition	The customer enter the store successfully.
Exception	The customers who didn't show their goods lists won't be allowed to enter the store.

Purchase goods

Name	Purchase goods.
Actors	Customers
Entry Conditions	<ul style="list-style-type: none">① Customers have already entered the store.② Customers have already made their goods lists.③ Customers' states of their QRs are certified.
Event Flow	<ul style="list-style-type: none">① Customers enter the store and go to special areas where they can find their goods that they want to buy.② Customers select goods.③ Customers changes to another area to buy other goods they need if they are allowed by store managers.④ Customers finish selecting goods.⑤ Customers pay their good.⑥ In the whole buying process, QRs' state stay certified.
Exit Condition	The customer payed their goods.
Exception	Customers won't be allowed to change to another area if there is too much people in another area.
Special Requirement	The time of customers purchase goods is less than 5 minutes in a special filed area.

Out the store

Name	Out the store
Actors	Customers & store managers
Entry Conditions	<ul style="list-style-type: none">① Customers have already finished buying goods.② Customers' states of QRs are certified.
Event Flow	<ul style="list-style-type: none">① Customer who has already finished buying goods and arrived door of the store.② Customer opens the app home page.③ Customer finds the QR.④ Customer shows the QR to scanner.⑤ Store managers check the QR's state if it has changed to invalid.⑥ Customer out of the store if QR's state changes to invalid.
Exit Condition	The customer out of the store.
Exception	Customers whose QRs were scanned unsuccessfully ask store managers to offer them artificial services so as to they can out of the store.

Cancel the bookings

Name	Cancel the bookings
Actors	Store managers & Customers
Entry Conditions	Customers have no time to the store in the booking duration time.
Event Flow	<ul style="list-style-type: none">① Customers have other important things which make them have to cancel their bookings early.② Customers send to the cancel-info to the store manager.③ Store managers retrieve responses to let customers know that there is no booking with the store.
Exit Condition	The customers have no booking with the store in the system.
Exception	Customers who don't arrive at the store on time are considered to be automatic cancellations.