System Object:

In this project, we are developing a software, which simulates the vending machine in real world. By pushing buttons on the board and paying, clients can get the products they want and get charge if needed.

Domain Analysis:

Sequence diagram：
The sequences of events for clients to purchase products are as follows.

Clients	UI board	vending machine

loop

1.1 Pressing the button for the products that want to buy

1.2 Sending requirements to machine to verify whether has enough in stock

alt

[Available to purchase]

1.3 Enough in stock

1.4 Show the money should be paid

[Not available to purchase]

1.5 Sold out

1.6 Show sold out message

2.1 Put cashes into the machine

2.2 Verify whether need to charge or has invalid input

alt

2.3 Invalid input

2.4 Show wrong input message

2.6 Show the charge number and give the charge to clients

2.5 Need to charge

2.8 Show the rest amount of money need to pay

2.7 Less than the amount

2.10 Show paid success!

2.9 Just right paid

3.1 Payment success

3.2 Send the product to clients