

CLASS DESIGN

1. Class “PlaceRushOrderController”

<<control>> PlaceRushOrderController	
- card : Card - cart : Cart - deliveryInfo : RushDeliveryInfo - invoice : Invoice	
+ RequestToPlaceRushOrder(items : Cart) : boolean + UpdateShippingInfo(deliveryInfo : RushDeliveryInfo) : void - <<exception>> CheckItemsSupport() : boolean - <<exception>> CheckShippingAddressSupports() : boolean	

Attribute

#	Name	Data type	Default value	Description
1	card	Card	NULL	Credit card used for payment
2	cart	Cart	NULL	Cart that places rush order
3	deliveryInfo	RushDeliveryInfo	NULL	Rush order information
4	invoice	Invoice	NULL	Invoice after rush order

Operation

#	Name	Return type	Description (purpose)
1	RequestToPlaceRushOrder	boolean	Request to place a rush order
2	UpdateShippingInfo	void	Update shipping information of rush order

- Parameter:
 - items – list of items of the customer who chose to place rush order.

- deliveryInfo – new delivery information for rush order.
- Exception:
 - ItemsNotSupportedException: responded with items that is not supported.
 - AddressNotSupportedException: responded with address does not support rush order.

Method

- CheckItemsSupport: Check if all items in cart supported rush order. If there're any items not supported, notify customer and throw ItemsNotSupportedException.
- CheckShippingAddressSupport: Check if shipping address is supported. If not, notify customer and throw AddresssNotSupportedException.

State

- None

2. Class “Invoice”

<<entity>> Invoice
- cart : Cart - card : Card - total : double - shippingFee : double - rush : boolean
+ ChangeShippingFeeFormula() : void + CalculateShippingFee() : double + Invoice(cart : Cart, card : Card) : void + SaveInvoice() : void

Attribute

#	Name	Data type	Default value	Description
1	card	Card	NULL	Credit card used for payment
2	cart	Cart	NULL	Cart that places rush order
3	total	Double	0	Total cost of all the items
4	shippingFee	Double	0	Shipping Fee
5	rush	Boolean	false	Check if customer place rush order

Operation

#	Name	Return type	Description (purpose)
1	ChangeShippingFeeFormula	void	Change shipping fee if customer place rush order
2	CalculateShippingFee	double	Calculate shipping fee
2	Invoice	void	Constructor of invoice
3	SaveInvoice	void	Save the final invoice

- Parameter:
 - card – the credit card used to pay and construct invoice.
 - cart – the list of items uses to construct invoice.
- Exception:
None

Method

- None

State

- None

3. Class “RushDeliveryInfo”

RushDeliveryInfo
- name : String - address : String - phoneNumber : String - deliveryTime : String
+ RushDeliveryInfo(name : String, address : String, phone : String, time : String) : void + update(name : String, address : String, phone : String, time : String) : void - checkDeliveryTime(time : String) : boolean

Attribute

#	Name	Data type	Default value	Description
1	name	String	NULL	Name of customer
2	address	String	NULL	Shipping address
3	phoneNumber	String	NULL	Customer's phone number
4	deliveryTime	String	NULL	Time of delivery

Operation

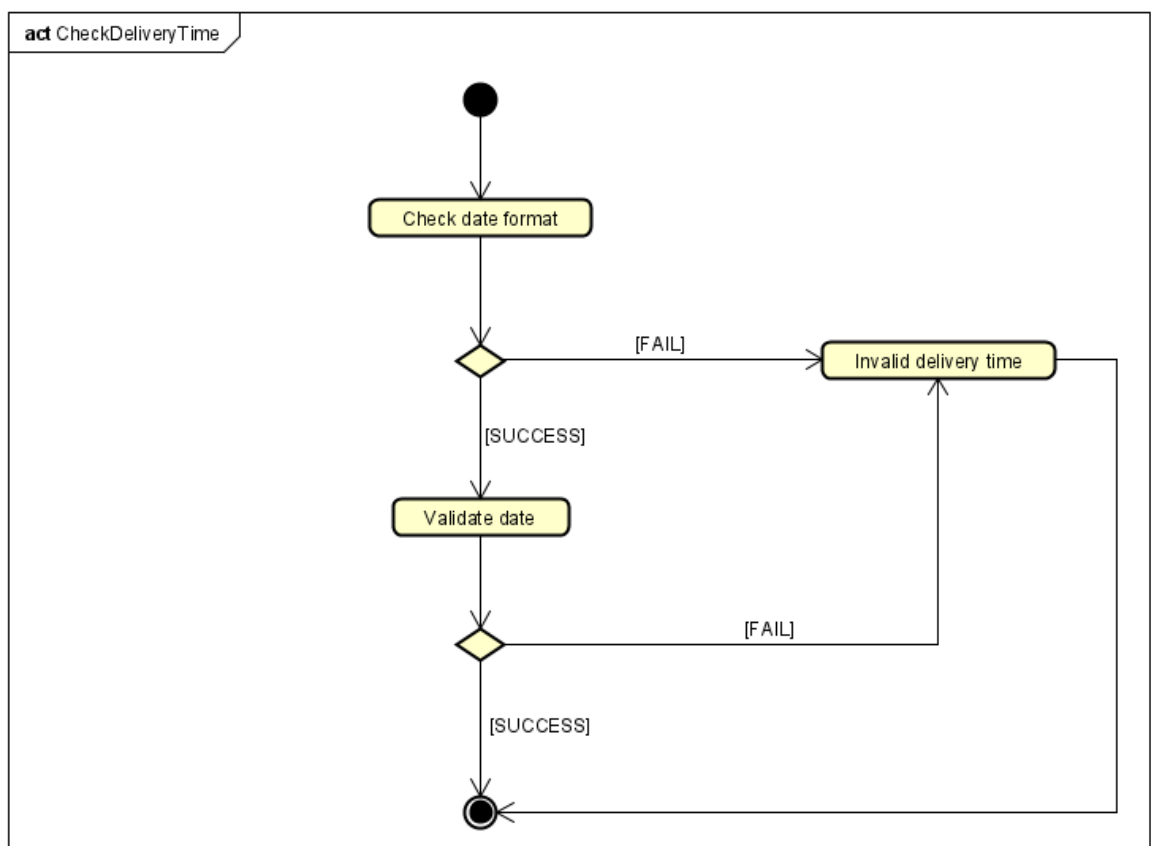
#	Name	Return type	Description (purpose)
1	RushDeliveryInfo	void	Rush Order Info constructor
2	update	void	Update rush delivery info

- Parameter:
 - name – name of customer.
 - address – shipping address.
 - phone – phone number of the customer.
 - time – date that customer want to receive delivery in format “HH DD/MM/YY”.

- Exception:
 - InvalidDeliveryTime – throws if either the format is incorrect or it's outside work hour.

Method

- checkDeliveryTime: Check if the format "HH DD/MM/YY" is correct or if it's outside work hour.
- The algorithm is illustrated as follows:



State

None

4. Class “DetailOrderScreen”

<<boundary>> DetailOrderScreen	
+ Display(cart : Cart, card : Card, deliveryInfo : RushDeliveryInfo) : void + UpdateDeliveryInfo(deliveryInfo : RushDeliveryInfo) : void	

Attribute

- None

Operation

#	Name	Return type	Description (purpose)
1	Display	void	Display items, card info and delivery info
2	UpdateDeliveryInfo	Void	Update delivery information

- Parameter:
 - card – the credit card used for payment
 - cart – list of items
 - deliveryInfo - rush order delivery information
- Exception:
 - None

Method

- None

State

- None