Class design for UC Rent Bike

<<control>> RentBikeController

bike : Bikedock : Dockrental : Rentalinvoice : Invoice

+ processBarcode(code : String) : void + rentBike(dock : Dock, bike : Bike) : void

- calculateDeposit(): int+ confirmInvoice(): void

+ processRentalInfo(info: HashMap<String,String>): void

- validateRentalInfo() : void

Attributes

#	Name	Data type	Default value	Description
1	bike	Bike	null	Represent the currently rented bike
2	dock	Dock	null	Represent the currently selected dock
3	rental	Rental	null	Represent the currently processed rental session
4	invoice	Invoice	null	Represent the currently processed invoice

Operations

#	Name	Return type	Description
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1	processBarcode	void	Process barcode input from user
2	rentBike	void	Proceed to rent a bike
3	calculateDeposit	int	Calculate deposit of rented bike
4	confirmInvoice	void	Confirm the current invoice
5	processRentalInfo	void	Process user input rental info
5	validateRentalInfo	boolean	Validate user input rental info

Parameters:

- code: user input barcode

- info: the user input rental info

- dock: the currently selected dock

- bike: the bike correspond to input barcode

Exceptions:

- InvalidBarcodeException: if user input barcode is invalid or there is no such bike with that barcode
- UnavailableBikeException: if the bike is not in currently selected dock
- InvalidRentalInfoException: if user input rental info is invalid

Methods

None

States

None