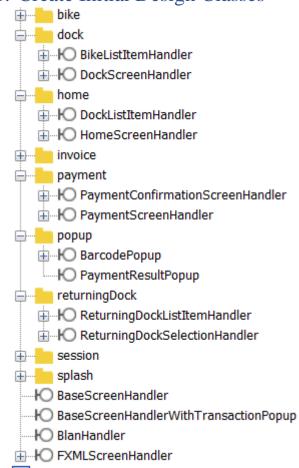
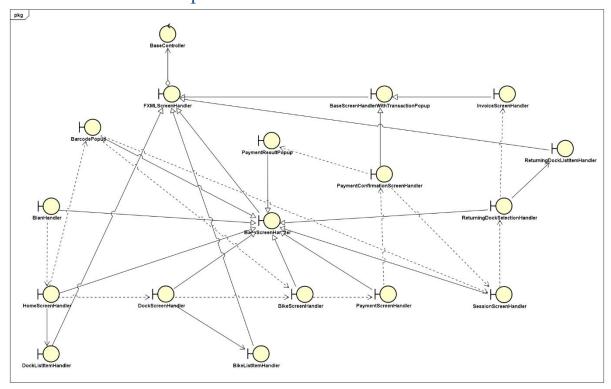
Class Design - View

1. Create Initial Design Classes



2. Define Relationships Between Classes



3. Class Design

3.1. Class "BikeScreenHandler"

<<bod><
boundary>></br> BikeScreenHandler - logo: ImageView - back : ImageView - barcodeButton : Button - bikeBarcode : Text - bikeDockName: Text - bikeBattery : Text - bikeUsage : Text - bikeDeposit : Text - bikeCharge : Text - bikelmage : ImageView - rentNowButton : Button - bike : Bike + initialize(url : URL, resourceBundle : ResourceBundle) : void + displayBike(): void

Attribute

Name Data type Default value Description
--

1	logo	ImageView	NULL	Logo image fxml
2	back	imageView	NULL	Back image fxml
3	barcodeButton	Button	NULL	BarcodeButton fxml
4	bikeBarcode	Text	NULL	Bike barcode fxml
5	bikeDockName	Text	NULL	Dock name fxml
6	bikeDeposit	Text	NULL	Bike deposit fxml
7	bikelmage	ImageView	NULL	Bike image
8	rentNowButton	Button	NULL	Rent button fxml
9	bike	Bike	NULL	bike

Operation

7	#	Name	Return type	Desciption
	1	initialize	void	initialize
1	2	displayBike	void	Display bike info screen

Parameter:

URL

ResourceBundle

Exception:

None

Method

None

State

3.2. Class "DockScreenHandler"

<<bod><
boundary>></br>

DockScreenHandler

logo : ImageView

- back : ImageView

- searchImg : ImageView

- barcodeButton : Button

- dockImg: ImageView

- dockName : Text

- dockAddress : Text

- parkinglcon : ImageView

- standardBikelcon : ImageView

- twinEBikelcon : ImageView

- dockCapacity: Text

- dockStandardBikeNum : Text

- dockTwinBikeNum : Text

- dockEBikeNum : Text

- dockTwinEBikeNum : Text

- vboxBikeList: VBox

- dock : Dock

bikeList : ArrayListBike

+ displayBikeList(): void

+ setDockDetail(): void

+ BikeScreenTransition(bike : Bike) : void

Attribute

#	Name	Data type	Default value	Description
1	logo	ImageView	NULL	Logo image fxml
2	back	imageView	NULL	Back image fxml
3	barcodeButton	Button	NULL	BarcodeButton fxml
4	dockName	Text	NULL	Dock name fxml
5	dockAddress	Text	NULL	Dock address fxml
7	docklmg	ImageView	NULL	Dock image fxml
8	dock	Dock	NULL	dock
9	bikeList	ArrayList <bike></bike>	NULL	Bike list in dock

Operation

#	Name	Return type	Desciption
1	displayBikeList	void	Display bike list
2	setDockDetail	void	Set dock detail
3	BikeScreenTransition	void	Transition to bike screen

Parameter:

bike

Exception:

None

Method

None

State

None

3.3. Class "BikeListItemHandler"

<<bod><
boundary>></br> BikeListItemHandler - bikeName : Text - bikeSaddle : Text - bikePedal: Text - bikeRearSeat : Text - rentButton : Button - bikeBattery : Text - bikeUsageTime : Text - bikeElecInfo : GridPane - bikelmg : ImageView - bikelcon : ImageView - batterylcon : ImageView - clocklcon : ImageView - dockScreenHandler: DockScreenHandler - bike : Bike + setBikeInfo(): void

Attribute

#	Name	Data type	Default value	Description
1	bikelmg	ImageView	NULL	Bike image fxml
2	bikelcon	imageView	NULL	Bike image fxml
3	rentButton	Button	NULL	Rent button fxml
4	bikeName	Text	NULL	Bike name fxml
8	dockScreenHandler	DockScreenHandler	NULL	object
9	bike	Bike	NULL	object

Operation

#	Name	Return type	Desciption
1	setBikeInfo	void	Set bike info

Parameter:

none

Exception:

None

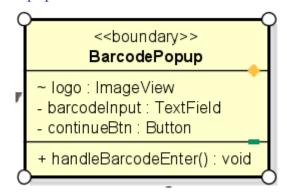
Method

None

State

None

3.4. Class "BarcodePopup"



Attribute

#	Name	Data type	Default value	Description
1	logo	ImageView	NULL	logo image fxml
2	barcodeInput	TextField	NULL	Input field fxml
3	continueBtn	Button	NULL	Continue button fxml

Operation

#	Name	Return type	Desciption
1	handleBarcodeEnter	void	Handle action "enter barcode"

Parameter:

none

Exception:

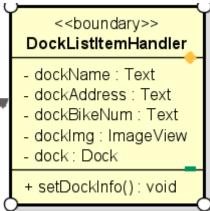
Method

None

State

None

3.5. Class "DockListItemHandler"



Attribute

#	Name	Data type	Default value	Description
1	dockName	Text	NULL	Dock name
2	dockAddress	Text	NULL	Dock address
3	dockBikeNum	Text	NULL	Number of bikes in
				dock
4	docklmg	ImageView	NULL	Dock image
5	dock	Dock	NULL	dock

Operation

#	Name	Return type	Desciption
1	setDockInfo	void	Set dock info

Parameter:

none

Exception:

None

Method

None

State

3.6. Class "HomeScreenHandler"

<<bod><
boundary>></br>

HomeScreenHandler

vboxDockList : VBoxdockList : ArrayListDock

- logo: ImageView

barcodeButton : ButtonsearchField : TextField

+ displayDockList() : void

+ onDockListItemClicked(dock: Dock): void

+ moveToSessionScreen(session : Session) : void

+ moveToBikeViewScreen(bike : Bike) : void

Attribute

#	Name	Data type	Default value	Description
1	vboxDockList	VBox	NULL	Vbox fxml
2	dockList	ArrayList <dock></dock>	NULL	Dock list
3	logo	ImageView	NULL	Logo image fxml
4	BarcodeButton	Button	NULL	Barcode button fxml
5	searchField	TextField	NULL	Search field fxml

Operation

#	Name	Return type	Desciption
1	displayDockList	void	Display dock list
2	onDockListItemClicked	void	Handle action click item on dock list
3	moveToSessionScreen	void	Handle action click button
4	moveToBikeViewScreen	void	Handle action click bike

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Dock

Session

Bike

Exception:

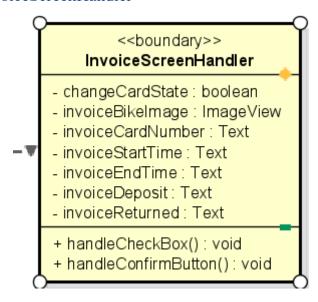
None

Method

None

State

3.7. Class "InvoiceScreenHandler"



Attribute

#	Name	Data type	Default value	Description
1	changeCardState	boolean	NULL	Card state
2	invoiceBikeImage	ImageView	NULL	Bike image
3	invoiceCardNumber	Text	NULL	Invoice card number
4	invoiceStartTime	Text	NULL	Invoice start time
5	invoiceEndTime	Text	NULL	Invoice end time
6	invoiceDeposit	Text	NULL	Invoice deposit
7	invoiceReturned	Text	NULL	Invoice returned

Operation

	#	Name	Return type	Desciption
	1	handleCheckBox	void	Handle check box
Ī	2	handleConfirmButton	void	Handle confirm button

Parameter:

none

Exception:

None

Method

None

State

None

3.8. Class "PaymentConfirmationScreenHandler"

<<body>

PaymentConfirmationScreenHandler

- paymentConfirmationConfirmButton : Button
- paymentConfirmationCancelButton : Button
- + handleRentingConfirmation(): void
- + transitionToSessionScreen(rentTransaction : PaymentTransaction) : void

Attribute

#	Name	Data type	Default value	Description
1	paymentConfirmationConfirmButton	Button	NULL	Confirm button fxml
2	paymentConfirmationCancelButton	Button	NULL	Cancel button fxml

Operation

#	Name	Return type	Desciption
1	handleRentingConfirmation	void	Handle confirmation action
2	transitionToSessionScreen	void	Transition to session screen

Parameter:

rentTransaction

Exception:

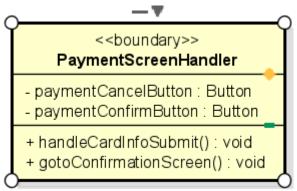
None

Method

None

State

3.9. Class "PaymentScreenHandler"



Attribute

#	Name	Data type	Default value	Description
1	paymentCancelButton	Button	NULL	Cancel button fxml
2	paymentConfirmButton	Button	NULL	Confirm button fxml

Operation

#	Name	Return type	Desciption
1	handleCardInfoSubmit	void	Handle action submit card
2	gotoConfirmationScreen	void	Transition to confirmation screen

Parameter:

None

Exception:

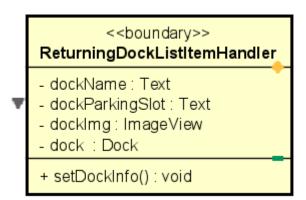
None

Method

None

State

3.10. Class "ReturningDockListItemHandler"



Attribute

#	Name	Data type	Default value	Description
1	dockName	Text	NULL	Dock name fxml
2	dockParkingSlot	Text	NULL	Dock parking slot fxml
3	dockImg	ImageView	NULL	Dock image fxml
4	dock	Dock	NULL	dock

Operation

#	Name	Return type	Desciption
1	setDockInfo	void	Set dock info

Parameter:

None

Exception:

None

Method

None

State

$Class\ ``ReturningDockListSelectionHandler"'$ 3.11.

<<bod><
boundary>></br> ReturningDockSelectionHandler

- docklmg: lmageView - dockAddress: Text - dockEmptySlots: Text - returnBikeBtn : Button

- dockInfo : Text - dock : Dock

- session : Session

- dockList : ArrayListDock

+ displayDockList(dock : Dock) : void

+ onDockListItemClicked(): void

Attribute

#	Name	Data type	Default value	Description
1	dockName	Text	NULL	Dock name fxml
2	dockAddress	Text	NULL	Dock address fxml
3	dockImg	ImageView	NULL	Dock image fxml
4	dock	Dock	NULL	dock
5	returnBikeBtn	Button	NULL	Button fxml
6	session	Session	NULL	session
7	dockList	ArrayList <dock></dock>	NULL	Dock list

Operation

#	Name	Return type	Desciption
1	displayDockList	void	Display dock list
2	onDockListItemClicked	void	Handle action click an item on
			docklist

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dock

Exception:

None

Method

State

None

3.12. Class "SessionScreenHandler"

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boundary>>

SessionScreenHandler

- sessionBikeImg : ImageView
- sessionBarcode : Text
- sessionLength: Text
- sessionRentingFees: Text
- sessionCloseBtn : Button
- sessionReturnBikeBtn : Button
- + gotoDockSelection(): void

Attribute

#	Name	Data type	Default value	Description
1	sessionBikeImg	ImageView	NULL	Bike image fxml
2	sessionBarcode	Text	NULL	Session barcode
				fxml
3	sessionLength	Text	NULL	Session length fxml
4	sessionRentingFees	Text	NULL	Session renting fees
				fxml
5	sessionCloseBtn	Button	NULL	Button fxml
6	sessionReturnBikeBtn	Button	NULL	Button fxml

Operation

#	Name	Return type	Desciption
1	gotoDockSeletion	void	Transition to dock selection

Parameter:

None

Exception:

None

Method

State

None

3.13. Class "SplashScreenHandler"



Attribute

#	Name	Data type	Default value	Description
1	bigLogo	ImageView	NULL	Logo image fxml
2	start	Button	NULL	Button fxml

None

Parameter:

None

Exception:

None

Method

None

State

