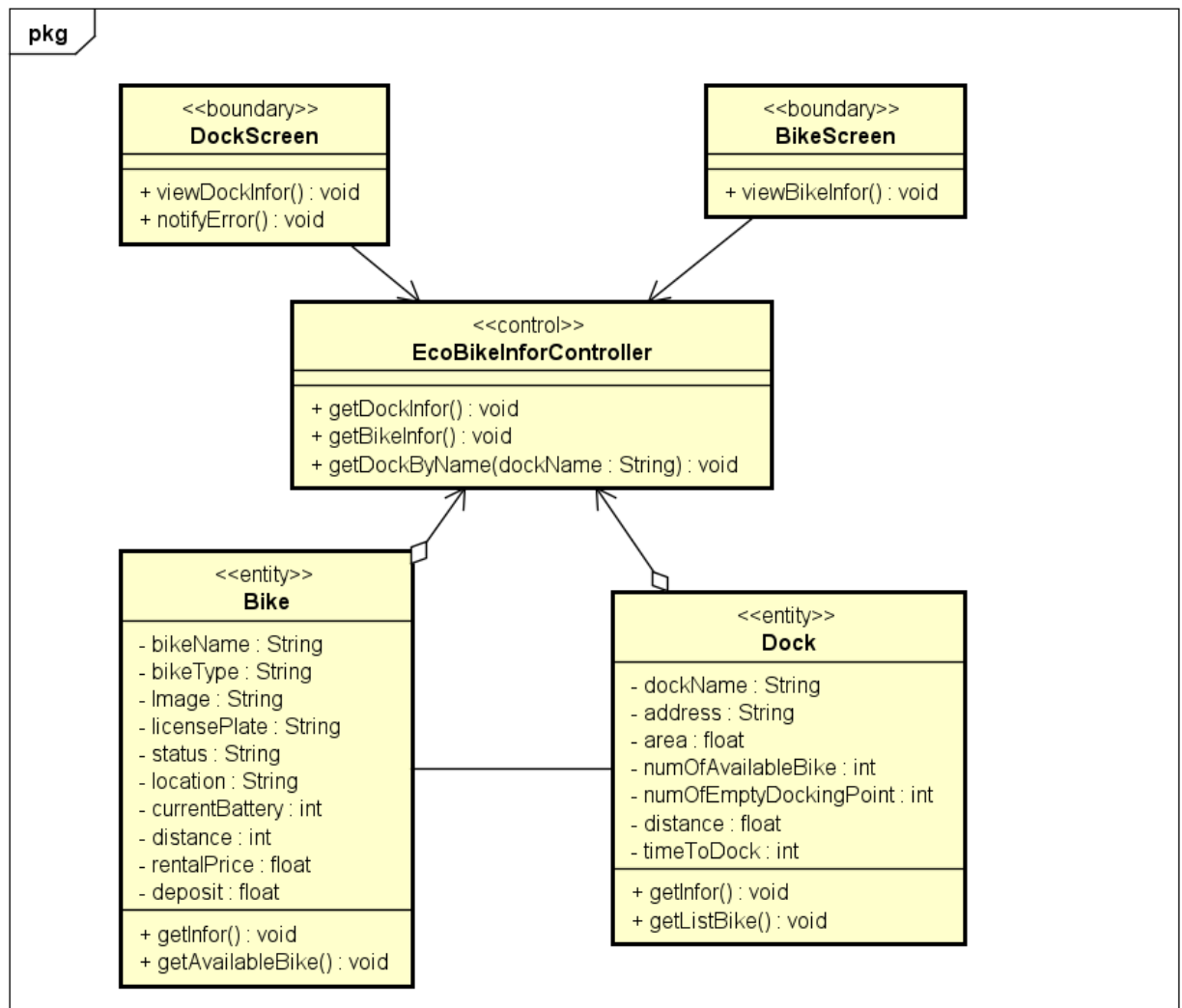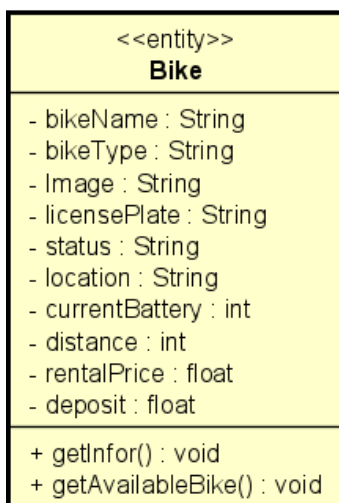# CLASS DESIGN FOR UC "View parking dock and vehicle information"

1. Analysis class diagram

2. Class "Bike"

Attribute

#	Name	Data type	Default value	Description
1	bikeName	String	NULL	Represent name of the bike
2	bikeType	String	NULL	Represent type of the bike
3	image	String	NULL	Represent image of the bike
4	licensePlate	String	NULL	Represent license plate of the bike
5	status	String	NULL	Represent status of the bike
6	location	String	NULL	Represent location of the bike
7	currentBattery	int	NULL	Represent current battery of the bike
8	distance	int	NULL	Represent distance bike can go with current battery
9	rentalPrice	float	NULL	Represent price to rent the bike
10	deposit	float	NULL	Repesent deposit user has to pay to rent the bike

Operation

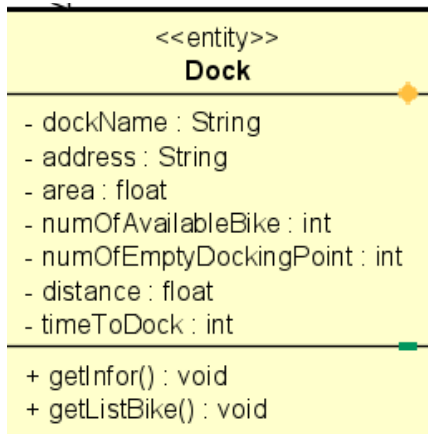| #	Name	Return type	Description (purpose)
1	getInfor	void	Get detail information of the bike, and then return EcoBikeInforController
2	getAvailableBike	void	Get number of available bike, and then return EcoBikeInforController

Parameter

None

Exception

None

Method

None

State

None

3. Class "Dock"

Attribute

#	Name	Data type	Default value	Description
1	dockName	String	NULL	Represent name of the dock
2	address	String	NULL	Represent address of the dock
3	area	float	NULL	Represent parking area of the dock
4	numOfAvailable	int	NULL	Represent number of available bikes in the dock
5	numOfEmptyDocingPoint	int	NULL	Represent number of empty docking point in the dock
6	distance	float	NULL	Represent distance from user's location to the dock
7	timeToDock	int	NULL	Represent walking time from user's location to the dock

Operation

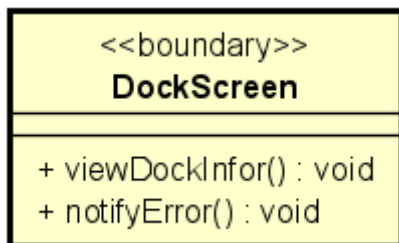| #	Name	Return type	Description (purpose)
1	getInfor	void	Get detail information of the dock, and then return EcoBikeInforController
2	getListBike	void	Get list of available bike, and then return EcoBikeInforController

Parameter

None

Exception

None

Method

None

State

None

4. Class "DockScreen"

Attribute

None

Operation

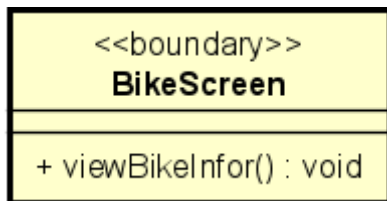| #	Name	Return type	Description (purpose)
1	viewDockInfor	void	Get detail information of the dock
2	notifyError	void	Notify error when no dock match the given infotmation, and then return DockScreen

Parameter

None

Exception

None

Method

None

State

None

5. Class "BikeScreen"

Attribute

None

Operation

#	Name	Return type	Description (purpose)
1	viewBikeInfor	void	Display detail information of the bike

Parameter

None

Exception

None

Method

None

State

None

6. Class "EcoBikeInforController"
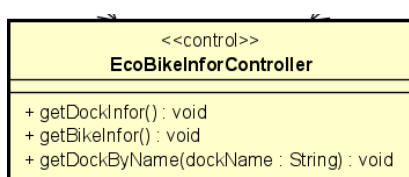
Attribute

None

Operation

#	Name	Return type	Description (purpose)
1	getDockInfor	void	Get detail information of the dock, and then return DockScreen
2	getBikeInfor	void	Get detail information of the bike, and then return BikeScreen
3	getDockByName	void	Get dock by name

Parameter

- dockName: name of the dock

Exception

None

Method

None

State

None