

USE CASE “Rent bike”

1. Use Case code

UC004

2. Brief Description

This use case describes the interaction between User and EcoBikeRental when User wishes to rent a bike

3. Actors

User

4. Preconditions

5. Basic flow of events

Step 1: User enters the corresponding barcode of the bike that he or she wants to rent from view dock screen

Step 2: The EcoBikeRental software convert the barcode into a rental code

Step 3: The EcoBikeRental software checks the availability of the bike in the dock

Step 4: The EcoBikeRental software calculate deposit

Step 5: The EcoBikeRental software displays the invoice

Step 6: User confirms to rent bike

Step 7: EcoBike call UC PayRental

Step 8: The EcoBikeRental software save the rental

Step 9: The AIMS software removes the bike from the dock

Step 10: The AIMS software displays successful notification.

6. Alternative flows

Table A - Alternative flows of events for UC Rent Bike

No	Point	Condition	Action	Resuming point
1	Step 2	The barcode is in incorrect format	The EcoBikeRental software notifies that the input barcode is incorrect	Step 1
2	Step 3	The bike is not available in the dock	The EcoBikeRental software notifies that the bike is not available	Step 1

7. Input data

No	Data field	Description	Required	Valid condition	Example
1	barcode		true		123456789

8. Output data

Table B - View dock screen

No	Data field	Description	Required	Valid condition	Example
1	name	Dock name	yes		EC-01
2	address	Dock address	yes		Block 0, line 1
3	area	Dock area	yes		69ha
4	number of available bikes	Number of available bikes	yes		69
5	number of empty points	Number of empty docking points	yes		69
6	distance	Distance from user's location to this dock	yes		69 m
7	time	walking time from user's location to this dock	yes		5 min

Table A - Invoice screen

No	Data field	Description	Required	Valid condition	Example
1	type	Bike type	yes		Standard
2	number	Bike registration number	yes		18G1-56446
3	time	Rental time	yes	format dd:hh:mm	0d:12h:12m
5	deposit	Deposit amount	yes		720.000
6	battery	Remaining	yes		80%

		battery percentage			
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9. Post conditions