

Use Case “Rent bike”

1. Brief description

This use case describes the interaction between software and the user when the user wishes to rent a bike by scanning the barcode on the lock.

2. Actors

2.1. Customer

3. Preconditions

None

4. Basic Flow of Events

Step 1. User scan barcode on the lock

Step 2. The software check the barcode

Step 3. The software display the information of the corresponding bike

Step 4. The software call “make transaction” use case

Step 5. The software open the lock of the bike, allowing user to use the bike

5. Alternative flows

Table N-Alternative flows of events for UC Place rush order

No	Location	Condition	Action	Resume location
1	At step 2	If the barcode is invalid	<ul style="list-style-type: none">The software notifies the user that it fail to recognize the barcode	At step 1

6. Input data

None

7. Output data

Table 1-Output data of the bike’s information

No	Data fields	Description	Display format	Example
1.	License plate			52-N6 1234
2.	Bike type	Only 3 types: standard bicycle, standard e-bike, twin bike		standard bicycle
3.	Current battery percentage	Only shown on standard e-bike	<ul style="list-style-type: none">Positive IntegerLess than or equal to 100Have ‘%’ at the endRight alignment	99%

8. Postconditions

If success then the lock on the scanned bike will be unlocked and the system will deduct 40% of the value of the bike in user's card or account.