Use Case “Return A Bike”

# Use case code

UC003

# Brief Description

This use case describes the interaction between the AIMS software with the customer and the Interbank when the customer desires to return the bike they rented

1. Actor
   1. Customer
   2. AIMS software
   3. Interbank

# Preconditions

* There is successful Internet connection to the app or the website
* The customer has already rented a bike before

# Basic Flow of Events

1. The customer requests to return the bike
2. The software displays the list of docks to choose
3. The customer chooses a dock in the list to return the bike
4. The software checks if the dock is full
5. The customer returns the bike to the dock they chose
6. The software displays the screen of card info and transaction content (see Table B)
7. The customer updates the info if needed and submits
8. The software checks the validity of the info
9. The software asks the bank to return the deposit
10. The interbank processes the transaction
11. The software calculates the rental fee
12. The software asks the bank to pay the fee
13. The interbank processes the transaction
14. The software saves the transaction info and displays the successful transaction notification
15. The software sends an emails of transaction info to the customer
16. The event ends

# Alternative Flows

*Table A – Alternative flows of events for “Return a bike”*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Location | Condition | Action | Resume location |
| 1. | At Step 4 | If the dock is full | The AIMS software notifies that the dock is full, and the customer must choose again | At Step 2 |
| 2. | At Step 8 | If the card info is invalid | The AIMS software notifies the card info is invalid | At Step 6 |
| 3. | At Step 11 | If free (in case the customer returns the bike within 10 minutes, …etc.) | The AIMS software  notifies that the customer doesn’t have to pay the fee and the event ends | At Step 16 |
| 4. | At Step 13 | If the balance is not enough | The software notifies that the balance is not enough | At Step 6 |
| 5. | Before Step 7 | If the customer exits the app or website at any step before step 7 | The software notifies that the customer hasn’t paid the fee yet | At Step that the customer exits the app |

# Input data

*Table B – Input data of payment*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Data fields | Description | Mandatory | Valid condition | Example |
| 1. | Card holder name |  | Yes |  | DO MINH HIEU |
| 2. | Card number |  | Yes |  | 1234 5678 934 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 3. | Expiration date |  | Yes | Consist of month and 2 last digits of year only | 01/00 |
| 4. | Security code |  | Yes |  | 123 |
| 5. | Issuing bank |  | Yes |  | VietinBank |

# Output data

*Table B – Output data of transaction notification*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Data fields | Description | Display format | Example |
| 1. | Card holder name of the receiver |  |  | DO MINH HIEU |
| 2. | Card number of the receiver |  |  |  |  | VietinBank |
| 3. | Card holder name of the sender |  |  |  |  |  |
| 4. | Issuing bank |  |  | VietinBank |  |  |
| 5. | Total | Total amount of money corresponding the rental time interval | * Comma for thousands separator * Positive integer * Right alignment | 50,000 |  | Total |
| 6. | Currency |  |  | VND |  |  |

# Postconditions

No need