

## 5. Test Case Details

### 5.1. Test Case Specification for "Test Case TestNumberField"

#### 5.1.1. Test Case 1

Test Case ID	TC001	Test Case Description	Test the method validateNumberField for pin and securityCode of Card	
Created By	Trần Thị Hằng	Reviewed By	Dương Thị Huệ	Version 1.0

**QA Tester's Log** Review method testNumberField

**Tester's Name** Trần Thị Hằng **Date Tested** 28/11/2020 **Test Case** Pass

#	Prerequisites:
1	Customer requests to rent or return bike

#	Test Data	Value
1	number	3456789

**Test Scenario** input number is valid

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit card information	submit sucessfully	As Expected	Pass

#### 5.1.2. Test Case 2

Test Case ID	TC002	Test Case Description	Test the method validateNumberField for pin and securityCode of Card	
Created By	Trần Thị Hằng	Reviewed By	Dương Thị Huệ	Version 1.0

**QA Tester's Log** Review method testNumberField

**Tester's Name** Trần Thị Hằng **Date Tested** 28/11/2020 **Test Case** Pass

#	Prerequisites:
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1	Customer requests to rent or return bike
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#	Test Data	Value
1	number	abc123

**Test Scenario** input number is invalid

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit card information	Error: input number is invalid. Submit unsuccessfully	As Expected	Pass

### 5.1.3. Test Case 3

<b>Test Case ID</b>	TC003	<b>Test Case Description</b>	Test the method validateNumberField for pin and securityCode of Card	
<b>Created By</b>	Trần Thị Hằng	<b>Reviewed By</b>	Dương Thị Huệ	<b>Version</b> 1.0

**QA Tester's Log** Review method testNumberField

<b>Tester's Name</b>	Trần Thị Hằng	<b>Date Tested</b>	28/11/2020	<b>Test Case</b> Pass
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#	Prerequisites:
1	Customer requests to rent or return bike

#	Test Data	Value
1	number	null

**Test Scenario** input number is null

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit card information	Error: input number is invalid. Submit unsuccessfully	As Expected	Pass

## 5.2. Test Case Specification for "Test Case testNameField"

### 5.2.1. Test Case 1

Test Case ID	TC004	Test Case Description	Test the method validateName for cardHolder's name and Bank's name of Card	
Created By	Trần Thị Hằng	Reviewed By	Dương Thị Huê	Version 1.0

QA Tester's Log Review method testNameField

Tester's Name Trần Thị Hằng Date Tested 28/11/2020 Test Case Pass

#	Prerequisites:
1	Customer requests to rent or return bike

#	Test Data	Value
1	name	Tran Thi Hang

Test Scenario input name is valid

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit card information	submit sucessfully	As Expected	Pass

### 5.2.2. Test Case 2

Test Case ID	TC005	Test Case Description	Test the method validateName for cardHolder's name and Bank's name of Card	
Created By	Trần Thị Hằng	Reviewed By	Dương Thị Huê	Version 1.0

QA Tester's Log Review method testNameField

Tester's Name Trần Thị Hằng Date Tested 28/11/2020 Test Case Pass

#	Prerequisites:
1	Customer requests to rent or return bike

#	Test Data	Value
1	name	Vietcombank01234

**Test Scenario** input name is invalid

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit card information	Error: input name is invalid. Submit unsuccessfully	As Expected	Pass

### 5.2.3. Test Case 3

<b>Test Case ID</b>	TC006	<b>Test Case Description</b>	Test the method validateName for cardHolder's name and Bank's name of Card	
<b>Created By</b>	Trần Thị Hằng	<b>Reviewed By</b>	Dương Thị Huê	<b>Version</b> 1.0

**QA Tester's Log** Review method testNameField

**Tester's Name** Trần Thị Hằng **Date Tested** 28/11/2020 **Test Case** Pass

#	Prerequisites:
1	Customer requests to rent or return bike

#	Test Data	Value
1	name	\$#nguyen

**Test Scenario** input name is invalid

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit card information	Error: input name is invalid. Submit unsuccessfully	As Expected	Pass

#### 5.2.4. Test Case 4

Test Case ID	TC007	Test Case Description	Test the method validateName for cardHolder's name and	
Created By	Trần Thị Hằng	Reviewed By	Dương Thị Huê	Version 1.0

**QA Tester's Log** Review method testNameField

**Tester's Name** Trần Thị Hằng **Date Tested** 28/11/2020 **Test Case** Pass

#	Prerequisites:
1	Customer requests to rent or return bike

#	Test Data	Value
1	name	null

**Test Scenario** input name is null

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit card information	Error: input name is invalid. Submit unsuccessfully	As Expected	Pass

#### 5.3. Test Case Specification for "Test Case testExpirationDate"

##### 5.3.1. Test Case 1

Test Case ID	TC008	Test Case Description	Test the method validateExpirationDate for expiration of Card	
Created By	Trần Thị Hằng	Reviewed By	Dương Thị Huê	Version 1.0

**QA Tester's Log** Review method testExpirationDate

**Tester's Name** Trần Thị Hằng **Date Tested** 28/11/2020 **Test Case** Pass

#	Prerequisites:
1	Customer requests to rent or return bike

#	Test Data	Value
1	String	2007-12-03

**Test Scenario** input date is before current time

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit card information	Error: input date is invalid. Submit unsuccessfully	As Expected	Pass

### 5.3.2. Test Case 2

<b>Test Case ID</b>	TC009	<b>Test Case Description</b>	Test the method validateExpirationDate for expiration of
<b>Created By</b>	Trần Thị Hằng	<b>Reviewed By</b>	Dương Thị Huê
		<b>Version</b>	1.0

**QA Tester's Log** Review method testExpirationDate

**Tester's Name** Trần Thị Hằng **Date Tested** 28/11/2020 **Test Case** Pass

#	Prerequisites:
1	Customer requests to rent or return bike

#	Test Data	Value
1	String	1125

**Test Scenario** input date is valid to use

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit card information	submit sucessfully	As Expected	Pass

### 5.3.3. Test Case 3

Test Case ID	TC010	Test Case Description	Test the method validateExpirationDate for expiration of	
Created By	Trần Thị Hằng	Reviewed By	Dương Thị Huê	Version 1.0

**QA Tester's Log** Review method validateExpirationDate

**Tester's Name** Trần Thị Hằng **Date Tested** 28/11/2020 **Test Case** Pass

#	Prerequisites:
1	Customer requests to rent or return bike

#	Test Data	Value
1	String	1120

**Test Scenario** input date is valid

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit card information	Error: input date is invalid. Submit unsuccessfully	As Expected	Pass

### 5.3.4. Test Case 4

Test Case ID	TC011	Test Case Description	Test the method validateExpirationDate for expiration of	
Created By	Trần Thị Hằng	Reviewed By	Dương Thị Huê	Version 1.0

**QA Tester's Log** Review method validateExpirationDate

**Tester's Name** Trần Thị Hằng **Date Tested** 28/11/2020 **Test Case** Pass

#	Prerequisites:
1	Customer requests to rent or return bike

#	Test Data	Value
1	String	null

**Test Scenario** input date is null

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit card information	Error: input date is invalid. Submit unsuccessfully	As Expected	Pass

#### 5.4. Test Case Specification for "Test Case testCheckAvailableBike" to rent

<b>Test Case ID</b>	TC0012	<b>Test Case Description</b>	check the bike is available for renting or not
<b>Created By</b>	Dương Thị Huê	<b>Reviewed By</b>	Trần Thị Hằng
		<b>Version</b>	1.0

**QA Tester's Log** Review method checkAvailableBike

<b>Tester's Name</b>	Dương Thị Huê	<b>Date Tested</b>	28/11/2020	<b>Test Case (Pass/Fail /Not Executed)</b>	Pass
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#	Prerequisites:
1	Customer requests to rent bike

#	Test Data	Value
1	renting	TRUE
2	renting	FALSE

**Test Scenario**

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit barcode to rent bike	TRUE	As Expected	Pass



#	Test Data	Value
2	renting	FALSE

#### Test Scenario

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit barcode to rent bike	FALSE	As Expected	Pass

### 5.5. Test Case Specification for "Test Case testCheckStationReturnBike" to return

<b>Test Case ID</b>	TC0013	<b>Test Case Description</b>	check the station have empty dock point or not
<b>Created By</b>	Dương Thị Huê	<b>Reviewed By</b>	Trần Thị Hằng
		<b>Version</b>	1.0

QA Tester's Log Review method checkStationReturnBike

<b>Tester's Name</b>	Dương Thị Huê	<b>Date Tested</b>	28/11/2020	<b>Test Case (Pass/Fail /Not Executed)</b>	Pass
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#	Prerequisites:
1	Customer request to return bike

#	Test Data	Value
1	numEmptyDockPoint	15

#### Test Scenario

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit to return bike in the	TRUE	As Expected	Pass

#	Test Data	Value
2	numEmptyDockPoint	0

#### Test Scenario

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit to return bike in the	FALSE	As Expected	Pass

#	Test Data	Value
2	numEmptyDockPoint	-1

#### Test Scenario

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit to return bike in the	FALSE	As Expected	Pass

## 5.6. Test Case Specification for Test Case testValidateBarcode

### 5.6.1. Test Case 1

Test Case ID	TC014	Test Case Description	Test the method validateBarcode
Created By	Phạm Nhật Linh	Reviewed By	Đỗ Minh Thông
		Version	1.0

<u>QA Tester's Log</u>	Review method testValidateBarcode
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<b>Tester's Name</b>	Phạm Nhật Linh	<b>Date Tested</b>	27/11/2020	<b>Test Case (Pass/Fail /Not Executed)</b>	Pass
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#	Prerequisites:
1	Customer enters bike barcode to rent bike

#	Test Data	Value
1	barcode	null

**Test Scenario** input barcode is null

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit bike barcode	Error: Invalid Barcode	As Expected	Pass

#### 5.6.2. Test Case 2

<b>Test Case ID</b>	TC015	<b>Test Case Description</b>	Test the method validateBarcode
<b>Created By</b>	Phạm Nhật Linh	<b>Reviewed By</b>	Đỗ Minh Thông
		<b>Version</b>	1.0

**QA Tester's Log** Review method testValidateBarcode

<b>Tester's Name</b>	Phạm Nhật Linh	<b>Date Tested</b>	27/11/2020	<b>Test Case (Pass/Fail /Not Executed)</b>	Pass
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#	Prerequisites:
1	Customer enters bike barcode to rent bike

#	Test Data	Value
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1	barcode	asbasced
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**Test Scenario** input barcode has more than 6 characters

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit bike barcode	Error: Invalid Barcode	As Expected	Pass

### 5.6.3. Test Case 3

<b>Test Case ID</b>	TC016	<b>Test Case Description</b>	Test the method validateBarcode
<b>Created By</b>	Phạm Nhật Linh	<b>Reviewed By</b>	Đỗ Minh Thông
		<b>Version</b>	1.0

**QA Tester's Log** Review method testValidateBarcode

<b>Tester's Name</b>	Phạm Nhật Linh	<b>Date Tested</b>	27/11/2020	<b>Test Case (Pass/Fail /Not Executed)</b>	Pass
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#	Prerequisites:
1	Customer enters bike barcode to rent bike

#	Test Data	Value
1	barcode	<u>12ab@#</u>

**Test Scenario** input barcode has invalid character

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit bike barcode	Error: Invalid Barcode	As Expected	Pass

#### 5.6.4. Test Case 4

Test Case ID	TC017	Test Case Description	Test the method validateBarcode	
Created By	Phạm Nhật Linh	Reviewed By	Đỗ Minh Thông	Version 1.0

**QA Tester's Log** Review method validateBarcode

Tester's Name	Phạm Nhật Linh	Date Tested	27/11/2020	Test Case (Pass/Fail /Not Executed)	Pass
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#	Prerequisites:
1	Customer enters bike barcode to rent bike

#	Test Data	Value
1	barcode	1a2b3c

**Test Scenario** input barcode has 6 characters, each one is a letter or a digit

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	click submit bike barcode	Valid Barcode	As Expected	Pass

#### 5.7. Test Case Specification for Test Case "CheckRentingBike"

##### 5.7.1. Test Case 1

Test Case ID	TC018	Test Case Description	Test the method checkRentingBike	
Created By	Phạm Nhật Linh	Reviewed By	Đỗ Minh Thông	Version 1.0

**QA Tester's Log** Review method checkRentingBike

<b>Tester's Name</b>	Phạm Nhật Linh	<b>Date Tested</b>	27/11/2020	<b>Test Case (Pass/Fail /Not Executed)</b>	Pass
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#	Prerequisites:
1	Customer wants to return bike

#	Test Data	Value
1	bike's station	null

**Test Scenario** the renting bike has null station

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	check renting bike's station	Valid bike to return	As Expected	Pass

### 5.7.2. Test Case 2

<b>Test Case ID</b>	TC019	<b>Test Case Description</b>	Test the method checkRentingBike
<b>Created By</b>	Phạm Nhật Linh	<b>Reviewed By</b>	Đỗ Minh Thông
		<b>Version</b>	1.0

**QA Tester's Log** Review method checkRentingBike

<b>Tester's Name</b>	Phạm Nhật Linh	<b>Date Tested</b>	27/11/2020	<b>Test Case (Pass/Fail /Not Executed)</b>	Pass
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#	Prerequisites:
1	Customer wants to return bike

#	Test Data	Value
1	bike's station	Truong Dinh

**Test Scenario** the renting bike has station named "Truong Dinh"

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	check renting bike's station	Invalid bike to return	As Expected	Pass

## 5.8. Test Case Specification for Test Case testValidateBarcodeBike

### 5.8.1. Test Case 1

Test Case ID	TC019	Test Case Description	Test the method validateBalance	
Created By	Đỗ Minh Thông	Reviewed By	Phạm Nhật Linh	Version 1.0

**QA Tester's Log** Review method testValidateBarcodeBike

Tester's Name	Đỗ Minh Thông	Date Tested	28/11/2020	Test Case (Pass/Fail /Not Executed)	Pass
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#	Prerequisites:
1	Customer wants to rent a bike with barcode

#	Test Data	Value
1	barcode	null

**Test Scenario** the barcode is null

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
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1	check valid barcode	invalid balance barcode	As Expected	Pass
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### 5.8.2. Test Case 2

<b>Test Case ID</b>	TC020	<b>Test Case Description</b>	Test the method validateBalance	
<b>Created By</b>	Đỗ Minh Thông	<b>Reviewed By</b>	Phạm Nhật Linh	<b>Version</b> 1.0

**QA Tester's Log** Review method testValidateBarcodeBike

<b>Tester's Name</b>	Đỗ Minh Thông	<b>Date Tested</b>	28/11/2020	<b>Test Case (Pass/Fail /Not Executed)</b>	Pass
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#	Prerequisites:
1	Customer wants to rent a bike with barcode

#	Test Data	Value
1	barcode	STB01

**Test Scenario** ther barcode is valid

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	check valid barcode	valid barcode	As Expected	Pass

## 5.9. Test Case Specification for Test Case testCalculateAmount

### 5.9.1. Test Case 1

<b>Test Case ID</b>	TC021	<b>Test Case Description</b>	Test the method calculateMoney	
<b>Created By</b>	Đỗ Minh Thông	<b>Reviewed By</b>	Phạm Nhật Linh	<b>Version</b> 1.0

**QA Tester's Log** Review method testCalculateAmount



<b>Tester's Name</b>	Đỗ Minh Thông	<b>Date Tested</b>	28/11/2020	<b>Test Case (Pass/Fail /Not Executed)</b>	Pass
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#	Prerequisites:
1	Customer return bike and request to pay the money

#	Test Data	Value
1	coefficient	1
2	time	23:40:00 25/12/2020

**Test Scenario** Customer rents bike in 2 minutes

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	calculate money	0	As Expected	Pass

### 5.9.2. Test Case 2

<b>Test Case ID</b>	TC022	<b>Test Case Description</b>	Test the method calculateMoney
<b>Created By</b>	Đỗ Minh Thông	<b>Reviewed By</b>	Phạm Nhật Linh
		<b>Version</b>	1.0

**QA Tester's Log** Review method checkRentingBike

<b>Tester's Name</b>	Đỗ Minh Thông	<b>Date Tested</b>	28/11/2020	<b>Test Case (Pass/Fail /Not Executed)</b>	Pass
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#	Prerequisites:
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1	Customer return bike and request to pay the money
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#	Test Data	Value
1	coefficient	1.5
2	time	23:00:00 25/12/2020

**Test Scenario** Customer rents bike in 45 minutes

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	calculate money	13000	As Expected	Pass

## 5.10. Test Case Specification for Test Case testGetBikeById

### 5.9.1. Test Case 1

<b>Test Case ID</b>	TC021	<b>Test Case Description</b>	Test the method calculateMoney
<b>Created By</b>	Đỗ Minh Thông	<b>Reviewed By</b>	Phạm Nhật Linh
		<b>Version</b>	1.0

**QA Tester's Log** Review method testGetBikeById

<b>Tester's Name</b>	Đỗ Minh Thông	<b>Date Tested</b>	28/11/2020	<b>Test Case (Pass/Fail /Not Executed)</b>	Pass
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#	Prerequisites:
1	Check the bike is exist

#	Test Data	Value
1	id	1

**Test Scenario** The bike id is exist

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed /
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				Suspended
1	check valid id	TRUE	As Expected	Pass