

Test Case Details

1. Test Case Specifications for "validateBarcodeInputTest"

1.1 Test Case 1

Test Case ID	TC001	Test Case Description	Test the method validateBarcodeInput in the BarcodeController		
Created By		Reviewed By	Version	1	
QA Tester's Log	Review method validateBarcodeInput				
Tester's Name		Date Tested		Test Case	Pass
#	Prerequisites:				
1	Desktop environment with JRE 14 with JUnit 5.4				
#	Test Data			Value	
1	barcode			1224452236	
Test Scenario	Correct format: only digits				
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended	
1	Click the Enter Barcode button	Barcode Popup is displayed	As expected	Pass	
2	Fill barcode in the field	Can input barcode and display	As expected	Pass	
3	Click Continue button	Move to the bike screen	As expected	Pass	

1.2 Test Case 2

Test Case ID	TC002	Test Case Description	Test the method validateBarcodeInput in the BarcodeController		
Created By		Reviewed By		Version	1
QA Tester's Log	Review method validateBarcodeInput				
Tester's Name		Date Tested		Test Case	Pass
#	Prerequisites:				
1	Desktop environment with JRE 14 with JUnit 5.4				
#	Test Data			Value	
1	barcode			das1144sa5	
Test Scenario	Wrong format				
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended	
1	Click the Enter Barcode button	Barcode Popup is displayed	As expected	Pass	
2	Fill barcode in the field	Can input barcode and display	As expected	Pass	
3	Click Continue button	Invalid barcode format notification appears	As expected	Pass	

1.3 Test Case 3

Test Case ID	TC003	Test Case Description	Test the method validateBarcodeInput in the BarcodeController		
Created By		Reviewed By	Version	1	
QA Tester's Log	Review method validateBarcodeInput				
Tester's Name		Date Tested		Test Case	Pass
#	Prerequisites:				
1	Desktop environment with JRE 14 with JUnit 5.4				
#	Test Data			Value	
1	barcode			null	
Test Scenario	Barcode left blank				
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended	
1	Click the Enter Barcode button	Barcode Popup is displayed	As expected	Pass	
2	Fill barcode in the field	Can input barcode and display	As expected	Pass	
3	Click Continue button	Barcode is not filled notification appears	As expected	Pass	

2. Test Case Specifications for "getBikeByBarcodeTest"

2.1 Test Case 4

Test Case ID	TC004	Test Case Description	Test the method getBikeByBarcode in the BarcodePopupController		
Created By		Reviewed By		Version	1
QA Tester's Log	Review method getBikeByBarcode				
Tester's Name		Date Tested		Test Case	Pass
#	Prerequisites:				
1	Desktop environment with JRE 14 with JUnit 5.4				
#	Test Data			Value	
1	barcode			467295	
Test Scenario	Bike with this barcode exists				
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended	
1	Click the Enter Barcode button	Barcode Popup is displayed	As expected	Pass	
2	Fill barcode in the field	Can input barcode and display	As expected	Pass	
3	Click Continue button	Move to the bike screen	As expected	Pass	

2.2 Test Case 5					
Test Case ID	TC005	Test Case Description	Test the method getBikeByBarcode in the BarcodePopupController		
Created By		Reviewed By		Version	1
QA Tester's Log Review method getBikeByBarcode					
Tester's Name		Date Tested		Test Case	Pass
#	Prerequisites:				
1	Desktop environment with JRE 14 with JUnit 5.4				
#	Test Data			Value	
1	barcode			25121	
Test Scenario Bike with this barcode does not exist					
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended	
1	Click the Enter Barcode button	Barcode Popup is displayed	As expected	Pass	
2	Fill barcode in the field	Can input barcode and display	As expected	Pass	
3	Click Continue button	Barcode not found notification appears	As expected	Pass	

3. Test Case Specifications for "validateCardNumberTest"					
3.1 Test Case 6					
Test Case ID	TC006	Test Case Description	Test the method validateCardNumber in the CardFormController		
Created By		Reviewed By		Version	1
QA Tester's Log	Review method validateCardNumber				
Tester's Name		Date Tested		Test Case	Pass
#	Prerequisites:				
1	Desktop environment with JRE 14 with JUnit 5.4				
#	Test Data		Value		
1	cardNumber		121319_group5_2020		
Test Scenario	Correct format: only letters, digits and underscores				
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended	
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass	
2	Fill card number in the field	Can input card number and display	As expected	Pass	
3	Click Continue button	Move to the payment confirmation screen	As expected	Pass	

3.2 Test Case 7					
Test Case ID	TC007	Test Case Description	Test the method validateCardNumber in the CardFormController		
Created By		Reviewed By		Version	1
QA Tester's Log	Review method validateCardNumber				
Tester's Name		Date Tested		Test Case	Pass
#	Prerequisites:				
1	Desktop environment with JRE 14 with JUnit 5.4				
#	Test Data			Value	
1	cardNumber			null	
Test Scenario	Card number is left blank				
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended	
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass	
2	Fill card number in the field	Can input card number and display	As expected	Pass	
3	Click Continue button	Card number is not filled notification appears	As expected	Pass	

3.3 Test Case 8					
Test Case ID	TC008	Test Case Description	Test the method validateCardNumber in the CardFormController		
Created By		Reviewed By		Version	1
QA Tester's Log Review method validateCardNumber					
Tester's Name		Date Tested		Test Case	Pass
#	Prerequisites:				
1	Desktop environment with JRE 14 with JUnit 5.4				
#	Test Data			Value	
1	cardNumber			113546 Hello	
Test Scenario Wrong format					
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended	
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass	
2	Fill card number in the field	Can input card number and display	As expected	Pass	
3	Click Continue button	Card number must contains only letters, digits and underscores notification appears	As expected	Pass	

4. Test Case Specifications for "validateCardOwnerTest"					
4.1 Test Case 9					
Test Case ID	TC009	Test Case Description	Test the method validateCardOwner in the CardFormController		
Created By		Reviewed By		Version	1

QA Tester's Log		Review method validateCardOwner			
Tester's Name		Date Tested		Test Case	Pass
#	Prerequisites:				
1	Desktop environment with JRE 14 with JUnit 5.4				
#	Test Data		Value		
1	cardOwner		Group 5		
Test Scenario		Correct format: only letters, digits and space			
Step #	Step Details	Expected Results		Actual Results	Pass / Fail / Not executed / Suspended
1	Go to the Payment Screen	Payment screen is displayed		As expected	Pass
2	Fill card owner in the field	Can input card owner and display		As expected	Pass
3	Click Continue button	Move to the payment confirmation screen		As expected	Pass

4.2 Test Case 10

Test Case ID	TC010	Test Case Description	Test the method validateCardOwner in the CardFormController		
Created By		Reviewed By		Version	1
QA Tester's Log	Review method validateCardOwner				
Tester's Name		Date Tested		Test Case	Pass
#	Prerequisites:				
1	Desktop environment with JRE 14 with JUnit 5.4				
#	Test Data			Value	
1	cardOwner			null	
Test Scenario	Card owner left blank				
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended	
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass	
2	Fill card owner in the field	Can input card owner and display	As expected	Pass	
3	Click Continue button	Card owner is not filled notification appears	As expected	Pass	

4.3 Test Case 11

Test Case ID	TC011	Test Case Description	Test the method validateCardOwner in the CardFormController	
Created By		Reviewed By	Version	1
QA Tester's Log	Review method validateCardOwner			
Tester's Name		Date Tested		Test Case Pass
#	Prerequisites:			
1	Desktop environment with JRE 14 with JUnit 5.4			
#	Test Data		Value	
1	cardOwner		Group-5	
Test Scenario	Wrong format			
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass
2	Fill card number in the field	Can input card owner and display	As expected	Pass
3	Click Continue button	Card owner must contains only letters, digits and space notification appears	As expected	Pass

5. Test Case Specifications for "validateSecurityCodeTest"

5.1 Test Case 12

Test Case ID	TC012	Test Case Description	Test the method validateSecurityCode in the CardFormController		
Created By		Reviewed By	Version		
QA Tester's Log		Review method validateSecurityCode			
Tester's Name		Date Tested	Test Case	Pass	
#	Prerequisites:				
1	Desktop environment with JRE 14 with JUnit 5.4				
#	Test Data		Value		
1	securityCode		721		
Test Scenario		Correct format: contains only 3 digits			
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended	
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass	
2	Fill security code in the field	Can input security code and display	As expected	Pass	
3	Click Continue button	Move to the payment confirmation screen	As expected	Pass	

5.2 Test Case 13

Test Case ID	TC013	Test Case Description	Test the method validateSecurityCode in the CardFormController	
Created By		Reviewed By	Version	1
QA Tester's Log		Review method validateSecurityCode		
Tester's Name		Date Tested		Test Case Pass
#	Prerequisites:			

1	Desktop environment with JRE 14 with JUnit 5.4			
#	Test Data	Value		
1	securityCode	null		
Test Scenario	Security code left blank			
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass
2	Fill security code in the field	Can input security code and display	As expected	Pass
3	Click Continue button	Security code is not filled notification appears	As expected	Pass

4.3 Test Case 14

Test Case ID	TC014	Test Case Description	Test the method validateSecurityCode in the CardFormController	
Created By		Reviewed By	Version	
QA Tester's Log Review method validateSecurityCode				
Tester's Name		Date Tested	Test Case	Pass
#	Prerequisites:			
1	Desktop environment with JRE 14 with JUnit 5.4			
#	Test Data	Value		
1	securityCode	A15		
Test Scenario Wrong format				
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass
2	Fill security code in the field	Can input security code and display	As expected	Pass
3	Click Continue button	Security code must contains only 3 digits notification appears	As expected	Pass

4.4 Test Case 15

Test Case ID	TC015	Test Case Description	Test the method validateSecurityCode in the CardFormController		
Created By		Reviewed By	Version		
QA Tester's Log		Review method validateSecurityCode			
Tester's Name		Date Tested	Test Case	Pass	
#	Prerequisites:				
1	Desktop environment with JRE 14 with JUnit 5.4				
#	Test Data	Value			
1	securityCode	225			
Test Scenario		Wrong format			
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended	
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass	
2	Fill security code in the field	Can input security code and display	As expected	Pass	
3	Click Continue button	Security code must contains only 3 digits notification appears	As expected	Pass	

5. Test Case Specifications for "validateSecurityCodeTest"

5.1 Test Case 12

Test Case ID	TC012	Test Case Description	Test the method validateSecurityCode in the CardFormController		
Created By		Reviewed By	Version		
QA Tester's Log		Review method validateSecurityCode			
Tester's Name		Date Tested	Test Case	Pass	
#	Prerequisites:				
1	Desktop environment with JRE 14 with JUnit 5.4				
#	Test Data		Value		
1	securityCode		721		
Test Scenario		Correct format: contains only 3 digits			
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended	
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass	
2	Fill security code in the field	Can input security code and display	As expected	Pass	
3	Click Continue button	Move to the payment confirmation screen	As expected	Pass	

5.2 Test Case 13

Test Case ID	TC013	Test Case Description	Test the method validateSecurityCode in the CardFormController	
Created By		Reviewed By	Version	1
QA Tester's Log Review method validateSecurityCode				
Tester's Name		Date Tested	Test Case	Pass
#	Prerequisites:			
1	Desktop environment with JRE 14 with JUnit 5.4			
#	Test Data	Value		
1	securityCode	null		

Test Scenario	Security code left blank			
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass
2	Fill security code in the field	Can input security code and display	As expected	Pass
3	Click Continue button	Security code is not filled notification appears	As expected	Pass

5.3 Test Case 14

Test Case ID	TC014	Test Case Description	Test the method validateSecurityCode in the CardFormController	
Created By		Reviewed By	Version	1

QA Tester's Log Review method validateSecurityCode

Tester's Name		Date Tested		Test Case Pass
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#	Prerequisites:
1	Desktop environment with JRE 14 with JUnit 5.4

#	Test Data	Value
1	securityCode	A15

Test Scenario Wrong format

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass
2	Fill security code in the field	Can input security code and display	As expected	Pass
3	Click Continue button	Security code must contains only 3 digits notification appears	As expected	Pass

5.4 Test Case 15

Test Case ID	TC015	Test Case Description	Test the method validateSecurityCode in the CardFormController	
Created By		Reviewed By	Version	1

QA Tester's Log Review method validateSecurityCode

Tester's Name		Date Tested		Test Case Pass
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#	Prerequisites:
1	Desktop environment with JRE 14 with JUnit 5.4

#	Test Data	Value
1	securityCode	2251

Test Scenario Wrong format

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass
2	Fill security code in the field	Can input security code and display	As expected	Pass
3	Click Continue button	Security code must contains only 3 digits notification appears	As expected	Pass

6. Test Case Specifications for "validateExpDateTest"

6.1 Test Case 16

Test Case ID	TC016	Test Case Description	Test the method validateExpDate in the CardFormController	
Created By		Reviewed By	Version	1

QA Tester's Log Review method validateExpDate

Tester's Name		Date Tested		Test Case Pass
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#	Prerequisites:
1	Desktop environment with JRE 14 with JUnit 5.4

#	Test Data	Value
1	expDate	1125

Test Scenario Correct format: contains only 4 digits

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass
2	Fill expiry date in the field	Can input expiry date and display	As expected	Pass
3	Click Continue button	Move to the payment confirmation screen	As expected	Pass

6.2 Test Case 17

Test Case ID	TC017	Test Case Description	Test the method validateExpDate in the CardFormController	
Created By		Reviewed By	Version	1

QA Tester's Log Review method validateExpDate

Tester's Name		Date Tested		Test Case Pass
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#	Prerequisites:
1	Desktop environment with JRE 14 with JUnit 5.4

#	Test Data	Value
1	expDate	null

Test Scenario Expiry date left blank

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass
2	Fill expiry date in the field	Can input expiry date and display	As expected	Pass

3	Click Continue button	Expiry date is not filled notification appears	As expected	Pass
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6.3 Test Case 18

Test Case ID	TC018	Test Case Description	Test the method validateExpDate in the CardFormController	
Created By		Reviewed By	Version	1

QA Tester's Log Review method validateExpDate

Tester's Name		Date Tested		Test Case	Pass
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#	Prerequisites:			
1	Desktop environment with JRE 14 with JUnit 5.4			

#	Test Data	Value
1	expDate	1111

Test Scenario Card expried

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass
2	Fill expiry date in the field	Can input expiry date and display	As expected	Pass
3	Click Continue button	Card expried notification appears	As expected	Pass

6.4 Test Case 19

Test Case ID	TC019	Test Case Description	Test the method validateExpDate in the CardFormController	
Created By		Reviewed By	Version	1

QA Tester's Log Review method validateExpDate

Tester's Name		Date Tested		Test Case	Pass
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#	Prerequisites:			
1	Desktop environment with JRE 14 with JUnit 5.4			

#	Test Data	Value
1	expDate	11/25

Test Scenario Wrong format

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass
2	Fill expiry date in the field	Can input expiry date and display	As expected	Pass
3	Click Continue button	Expiry date must contains only 4 digits notification appears	As expected	Pass

6.5 Test Case 20

Test Case ID	TC020	Test Case Description	Test the method validateExpDate in the CardFormController	
Created By		Reviewed By	Version	1

QA Tester's Log Review method validateExpDate

Tester's Name		Date Tested		Test Case	Pass
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#	Prerequisites:			
1	Desktop environment with JRE 14 with JUnit 5.4			

#	Test Data	Value
1	expDate	12/11/2025

Test Scenario Wrong format

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Go to the Payment Screen	Payment screen is displayed	As expected	Pass
2	Fill expiry date in the field	Can input expiry date and display	As expected	Pass
3	Click Continue button	Expiry date must contains only 4 digits notification appears	As expected	Pass

7. Test Case Specifications for "calculateReturnedTest"

7.1 Test Case 21

Test Case ID	TC021	Test Case Description	Test the method calculateReturned in the InvoiceScreenController	
Created By		Reviewed By	Version	1

QA Tester's Log Review method calculateReturned

Tester's Name		Date Tested		Test Case	Pass
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#	Prerequisites:			
1	Desktop environment with JRE 14 with JUnit 5.4			

#	Test Data	Value
1	bikeDeposit	100000
	totalCharge	20000
2	bikeDeposit	100000
	totalCharge	50000
3	bikeDeposit	100000
	totalCharge	130000

Test Scenario Set the deposit and total charge, check the return value

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Deposit 100000, total charge 20000	Return 80000	As expected	Pass
2	Deposit 100000, total charge 50000	Return 50000	As expected	Pass

3	Deposit 100000, total charge 130000	Take 30000 more	As expected	Pass
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8. Test Case Specifications for "refundTest"

8.1 Test Case 22

Test Case ID	TC022	Test Case Description	Test the method refund in the InvoiceScreenController	
Created By		Reviewed By	Version	1

QA Tester's Log	Review method refund
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Tester's Name		Date Tested		Test Case	Pass
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#	Prerequisites:
1	Desktop environment with JRE 14 with JUnit 5.4

#	Test Data	Value
1	amount	1000000000
	contents	refund
	cardNumber	121319_group5_2020
	cardHolderName	Group 5
	expirationDate	1125
	securityCode	721

Test Scenario	Valid card to return
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Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Go to the Invoice Screen	Return Bike screen is displayed	As expected	Pass
2	Fill card information in the field	Can input card information and display	As expected	Pass
3	Click Confirm button	Payment successful popup appears	As expected	Pass

8.2 Test Case 23

Test Case ID	TC023	Test Case Description	Test the method refund in the InvoiceScreenController	
Created By		Reviewed By	Version	1

QA Tester's Log	Review method refund
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Tester's Name		Date Tested		Test Case	Pass
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#	Prerequisites:
1	Desktop environment with JRE 14 with JUnit 5.4

#	Test Data	Value
1	amount	1000000000
	contents	refund
	cardNumber	199001008
	cardHolderName	Group 5
	expirationDate	1125
	securityCode	721

Test Scenario	Invalid card to return
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Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Go to the Invoice Screen	Return Bike screen is displayed	As expected	Pass
2	Fill card information in the field	Can input card information and display	As expected	Pass
3	Click Confirm button	Invalid card popup appears	As expected	Pass

8. Test Case Specifications for "calculateCurrentRentingFeesTest"

9.1 Test Case 24

Test Case ID	TC024	Test Case Description	Test the method calculateCurrentRentingFees in the SessionScreenController	
Created By		Reviewed By	Version	1

QA Tester's Log	Review method calculateCurrentRentingFees
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Tester's Name		Date Tested		Test Case	Pass
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#	Prerequisites:
1	Desktop environment with JRE 14 with JUnit 5.4

#	Test Data	Value
1	bike	StandardBike
	sessionLength	7
	fee	0
1	bike	StandardElectricalBike
	sessionLength	25
	fee	20000
1	bike	TwinElectricalBike
	sessionLength	52
	fee	32000
1	bike	StandardBike
	sessionLength	61
	fee	19000

Test Scenario	Valid card to return
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Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Go to the Invoice Screen	Return Bike screen is displayed	As expected	Pass
2	See the total fees	Total fees display with value as expected	As expected	Pass