

5. Test Case Details

5.1. Test Case Specification for "Validate CardCode of CreditCard"

Test Case ID	TC001	Test Case Description	Test the validity of card code of Payment Information	Version	1.0
Created By	Nguyen Xuan Hoang	Reviewed By	Vu Trung Dung		
QA Tester's Log	Review comments from Reviewer incorporate in version 1.0				
Tester's Name	C	Date Tested	24/12/2020	Test Case (Pass/Fail/Not Executed)	Pass

#	Prerequisites:
1	Access to Apps, user in Choose Payment Method Screen

#	Test Data	Value
1	cardCode	null
2	cardCode	12312312_group1_2020
3	cardCode	#@ absasc

Test Scenario Empty cardCode submit

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	User submit with empty cardCode field	Function return false	As Expected	Pass

Test Scenario cardCode is valid

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	user input cardCode is valid	Function return true	As Expected	Pass
2	User submit Payment Information			

Test Scenario cardCode with invalid characters

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	user input cardCode with invalid characters	Function return false	As Expected	Pass
2	User submit Payment Information			

5.2. Test Case Specification for "Validate cvvCode of CreditCard"

Test Case ID	TC002	Test Case Description	Test the validity of cvvCode of Payment Information	
Created By	Nguyen Xuan Hoang	Reviewed By	Vu Trung Dung	Version1.0

QA Tester’s LogReview comments from Reviewer incorporate in version 1.0

Tester's Name	C	Date Tested	24/12/2020	Test Case (Pass/Fail/Not Executed)Pass
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#	Prerequisites:
1	Access to Apps, user in Choose Payment Method Screen

#	Test Data	Value
1	cvvCode	null
2	cvvCode	123
3	cvvCode	“123”
4	cvvCode	12312312

Test ScenarioEmpty cvvCode submit

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	User submit with empty cvvCode field	Function return false	As Expected	Pass

Test ScenariocvvCode is valid

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	user input cvvCode is valid	Function return true	As Expected	Pass
2	User submit Payment Information			

Test ScenariocvvCode is invalid type

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	user input cvvCode is invalid type	Function return false	As Expected	Pass
2	User submit Payment Information			

Test Scenario cvvCode length is invalid

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	user input cvvCode with invalid length	Function return false	As Expected	Pass
2	User submit Payment Information			

5.3. Test Case Specification for "Validate dateExpired of CreditCard"

Test Case ID	TC003	Test Case Description	Test the validity of dateExpired of Payment Information	
Created By	Nguyen Xuan Hoang	Reviewed By	Vu Trung Dung	Version 1.0

QA Tester's Log Review comments from Reviewer incorporate in version 1.0

Tester's Name	C	Date Tested	24/12/2020	Test Case (Pass/Fail/Not Executed)	Pass
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#	Prerequisites:
1	Access to Apps, user in Choose Payment Method Screen
2	

#	Test Data	Value
1	dateExpired	null
2	dateExpired	1230
3	dateExpired	12/32
4	dateExpired	1210
5	dateExpired	2222
6	dateExpired	1220

Test Scenario Empty dateExpired submit

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	User submit with empty dateExpired field	Function return false	As Expected	Pass

Test Scenario dateExpired is valid format

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Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	user input dateExpired is invalid format	Function return false	As Expected	Pass
2	User submit Payment Information			

Test Scenario dateExpired is in the past

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	user input dateExpired is in the past	Function return false	As Expected	Pass
2	User submit Payment Information			

Test Scenario dateExpired is invalid

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	user input cvvCode with valid	Function return false	As Expected	Pass
2	User submit Payment Information			

5.4. Test Case Specification for "Validate owner of CreditCard"

Test Case ID	TC004	Test Case Description	Test the validity of owner of Payment Information	
Created By	Nguyen Xuan Hoang	Reviewed By	Vu Trung Dung	Version 1.0

QA Tester's Log Review comments from Reviewer incorporate in version 1.0

Tester's Name	C	Date Tested	24/12/2020	Test Case (Pass/Fail/Not Executed) Pass
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#	Prerequisites:
1	Access to Apps, user in Choose Payment Method Screen
2	

#	Test Data	Value
1	owner	null
2	owner	NGUYEN XUAN HOANG
3	owner	#@ NGUYEN XUAN HOANG

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Test Scenario Empty owner submit

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	User submit with empty owner field	Function return false	As Expected	Pass

Test Scenario owner is valid

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	user input owner is valid	Function return true	As Expected	Pass
2	User submit Payment Information			

Test Scenario owner with invalid characters

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	user input owner with invalid characters	Function return false	As Expected	Pass
2	User submit Payment Information			

5.5. Test Case Specification for "Deduct Money Test"

Test Case ID	TC005	Test Case Description	Test the deduct function of payment controller	
Created By	Nguyen Xuan Hoang	Reviewed By	Vu Trung Dung	Version1.0

QA Tester’s Log Review comments from Reviewer incorporate in version 1.0

Tester's Name	C	Date Tested	24/12/2020	Test Case (Pass/Fail/Not Executed)	Pass
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#	Prerequisites:
1	User request to Rent Bike
2	

#	Test Data	Value
1	card	{cardCode:"12312312_group1_2020", cvvCode:123,dateExpired:"1222",owner:"NGUYEN XUAN HOANG"}
	amount	0

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2	card	{cardCode:"12312312_group1_2020", cvvCode:123,dateExpired:"1222",owner:"NGUYEN XUAN HOANG"}
	amount	10000
3	card	{cardCode:"12312312_group1_2020", cvvCode:123,dateExpired:"1222",owner:"NGUYEN XUAN HOANG"}
	amount	1000000

Test Scenario Deduct valid amount of money

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	software deduct valid amount of money	Function return false message		Not executed

Test Scenario Deduct invalid amount of money (more than balance)

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	software deduct invalid amount of money	Function return success message		Not executed

5.6. Test Case Specification for "Deduct Money Test"

Test Case ID	TC006	Test Case Description	Test the return deposit money function of payment controller		
Created By	Nguyen Xuan Hoang	Reviewed By	Vu Trung Dung	Version	1.0
QA Tester's Log		Review comments from Reviewer incorporate in version 1.0			
Tester's Name	C	Date Tested	24/12/2020	Test Case (Pass/Fail/Not Executed)	Pass

#	Prerequisites:
1	User Return Bike
2	

#	Test Data	Value
1	card	{cardCode:"12312312_group1_2020", cvvCode:123,dateExpired:"1222",owner:"NGUYEN XUAN HOANG"}
	amount	0
2	card	{cardCode:"12312312_group1_2020", cvvCode:123,dateExpired:"1222",owner:"NGUYEN XUAN HOANG"}

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	amount	10000
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Test Scenario return valid deposit money

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	software deduct valid amount of money	Function return success message		Not executed

5.7. Test Case Specification for "Validate Dock Controller"

Test Case ID	TC007	Test Case Description	Test the validation of get dock station and get bike station	
Created By	Nguyen Trung Nghia	Reviewed By	Vu Trung Dung	Version 1.0

QA Tester's Log Review comments from Reviewer incorporate in version 1.0

Tester's Name	C	Date Tested	24/12/2020	Test Case (Pass/Fail/Not Executed) Pass
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#	Prerequisites:
1	Dart Language and Flutter Framework

Test Scenario Verify get all dock station from database

#	Test Data	Value
1	List<DockStation>	a valid dock station object: {id=>'123',dockName=>'abc',dockArea=>'12x12', dockSize=>'12',dockAddress=>'abc123',lstBike}

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	User see the home page	The DockStation list should be appeared	As Expected	Pass

Test Scenario Verify get all bikes from dockStation

#	Test Data	Value
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Test case details

1	List<Bike>	{id=>'123',barcode=>'adsfs', color=>'asdf',category=>'asd'. bikeValue=>'123', baseRentAmount=>'123', addRentAmount=>'123',lock=>'true'}	
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Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	User click to a row in list dock station	the view detail button should be appeared	As Expected	Pass
2	User click to the view detail button	The list bike in dock should be appeared	As Expected	Pass

5.8. Test Case Specification for "Validate Get Bike Information"

Test Case ID	TC008	Information	Test the validation of bike model	
Created By	Nguyen Ngoc Quy	Reviewed By	Vu Trung Dung	Version1.0
QA Tester's Log				
Tester's Name	Nguyen Ngoc Quy	Date Tested	24/12/2020	Test Case (Pass/Fail/Not Executed)Pass

#	Prerequisites:
1	Dart Language and Flutter Framework

Test Scenario	Verify Bike Information
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#	Test Data	Value
1	Bike	{id=>'123',barcode=>'jn5p2b6k', color=>'black',category=>'standard', bikeValue=>'50000', baseRentAmount=>'10000', additionalRentAmount=>'5000'}

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	User tap on the Bike in DockStation	The detailed information screen should be appeared	As Expected	Pass

Test Scenario	Verify rented bike infomation
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Test case details

#	Test Data	Value
1	Bike	{id=>'123',color=>'asdf',battery=>'40%', timeRented=>'1h15m', paymentAmount=>'20000',lock=>'true'}

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	User tap on the Rented Bike Screen	Details for rented bike should be appeared	As Expected	Pass

5.9. Test Case Specification for "Renting Bikes"

Test Case ID	TC009	Test Case Description	Test the validity of the Renting Bike process	
Created By	Nguyen Ngoc Quy	Reviewed By	Vu Trung Dung	Version

QA Tester's Log

Tester's Name	Nguyen Ngoc Quy	Date Tested	24/12/2020	Test Case	Pass
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#	Prerequisites:
1	User with working Credit card
2	Available bike for renting

#	Test Data	Value
1	Bike barcode	#12354
2	cardCode	12312312_group1_2020

Test Scenario	Renting process is successful
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Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	User request to rent a bike	The choose payment process screen should appear	As Expected	Pass
2	User request to pay for bike rental	The invoice screen should appear	As Expected	Pass

Test Scenario	Not enough money in the card
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Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	User request to rent a bike	The choose payment process screen should appear	As Expected	Pass
2	User request to pay for bike rental	The software notify the user of lacking funds	As Expected	Pass

5.10. Test Case Specification for "Returning Bikes"

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Test Case ID	TC010	Test Case Description	Test the validity of the Returning Bike process	
Created By	Nguyen Ngoc Quy	Reviewed By	Vu Trung Dung	Version

QA Tester's Log

Tester's Name	Nguyen Ngoc Quy	Date Tested	24/12/2020	Test Case	Pass
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#	Prerequisites:
1	User with at least 1 bike rented

#	Test Data	Value
1	rentalCode	abcabcbacb

Test Scenario Returning bike successfully

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	User request to return rented bike	The bike return form should appear	As Expected	Pass
2	User choose a return dock	The available dock list should appear	As Expected	Pass
3	User confirm bike returnal	The invoice should appear	As Expected	Pass

Test Scenario No available dock for return

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	User request to return rented bike	The bike return form should appear	As Expected	Pass
2	User choose a return dock	The software notify the lack of available dock	As Expected	Pass

Test Scenario Available slot got taken during process transaction

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	User request to return rented bike	The bike return form should appear	As Expected	Pass
2	User choose a return dock	The available dock list should appear	As Expected	Pass
2	User confirm bike returnal	The software notify the slot in chosen dock is taken	As Expected	Pass

Test Scenario No rented bike

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	User request to return rented bike	The software display "No rented bike" message	As Expected	Pass