

# SE 318 - SOFTWARE VERIFICATION AND VALIDATION

VENDING MACHINE
FURKAN KAVLAK
HATICE ERTUĞRUL
SIMGE GÜÇLÜKOL
UNIT TEST DOCUMENT

Version 3.0 12/05/2017

# **VERSION HISTORY**

Version	Implemented	Revision	Approved	Approval	Reason
#	Ву	Date	Ву	Date	
1.0	Furkan Kavlak	11/04/2017	Simge	12/04/2017	Test Case draft
			Güçlükol		
2.0	Hatice Ertuğrul	02/05/2017	Furkan	03/05/2017	Test Case review
			Kavlak		
3.0	Furkan Kavlak	11/05/2017	Simge	12/05/2017	Completion of All Test
			Güçlükol		Cases

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## 1 INTRODUCTION

#### 1.1 PURPOSE OF THE TEST CASE DOCUMENT

The purpose of the test case document is testing functional requirements of Vending Machine. In this document all test cases of Vending Machine can be seen and it allows to finding errors at early stages.

The Test Case document documents the functional requirements of the **Vending Machine** test case. The intended audience is the project manager, project team, and testing team. Some portions of this document may on occasion be shared with the client/user and other stakeholder whose input/approval into the testing process is needed.

#### 1.2 CONSTRAINTS

To use Junit, Java and Eclipse should be known. Also finding right function to test test cases is important. Sometimes there is no suitable way to test test cases.

### 2 UNIT TEST FRAMEWORK: JUNIT

In this project Junit is used as a unit test framework. This framework is for Java Programming Language. This framework is important in the development of test driven development. Junit is an open source framework and it allows people to write and run repeatable tests.

# 3 TEST CASES

**Test Case 1** 

**Test Definition** 

AddCoin(): It takes 1TL,5TL and 10TL and checks whether sum of them 16.

**Expected Value** 

16

**Actual Value** 

16

**Result of Test Case** 

successful

**Test Case 2** 

**Test Definition** 

AddCoinBalanceNotEqual():It takes 1TL,5TL and 10TL and checks whether sum of them 20

**Expected Value** 

<Not> 20

**Actual Value** 

16

**Result of Test Case** 

successful

**Test Case 3** 

**Test Definition** 

GiveProduct():Customer puts 20TL and takes Cola. It checks whether product is Cola.

**Expected Value** 

"Cola"

**Actual Value** 

"Cola"

**Result of Test Case** 

#### **Test Definition**

GiveProductNotEqual():Customer gives 20TL and takes Cola. It checks whether product is Chocolate.

# **Expected Value**

<Not> "Chocolate"

#### **Actual Value**

"Cola"

**Result of Test Case** 

successful

#### **Test Case 5**

#### **Test Definition**

InsufficentBalance():Customer gives 1TL and wants to take Cola. Test checks that "Insufficient balance" message is seen on the screen

# **Expected Value**

"Insufficient Balance"

#### **Actual Value**

"Insufficient Balance"

**Result of Test Case** 

successful

# **Test Case 6**

#### **Test Definition**

EnoughBalance():Customer gives 20TL and wants to take Cola. Test checks "Insufficient Balance" message is not seen on the screen

# **Expected Value**

<Not> "Insufficient Balance"

#### **Actual Value**

"Cola"

Result of Test Case successful

#### **Test Definition**

GiveChange():Customer gives 5TL and takes Cola then wants to change. Test checks that whether change is 2.5TL

# **Expected Value**

2.5TL

#### **Actual Value**

2.5TL

**Result of Test Case** 

successful

## **Test Case 8**

#### **Test Definition**

GiveChangeNotEqual():Customer gives 5TL and takes Cola then wants to change. Test checks that whether change is 100TL

# **Expected Value**

<Not> 100TL

## **Actual Value**

2.5TL

**Result of Test Case** 

successful

# **Test Case 9**

#### **Test Definition**

CheckBalance():Customer gives 10TL and takes Cola. Test checks that whether remaining coin is 7.5TL

# **Expected Value**

7.5TL

#### **Actual Value**

7.5TL

Result of Test Case successful

#### **Test Definition**

CheckBalanceNotEqual():Customer gives 10TL and takes Cola. Test checks that whether remaining coin is 10TL

# **Expected Value**

<Not> 10TL

#### **Actual Value**

7.5TL

**Result of Test Case** 

successful

#### **Test Case 11**

#### **Test Definition**

CheckInStock():When the customer gives money and choose product, if product is available, there should be no "Out of Stock" message

# **Expected Value**

<Not> "Out of Stock"

#### **Actual Value**

Cola

**Result of Test Case** 

successful

# **Test Case 12**

# **Test Definition**

CheckOutOfStock():When the customer gives money and choose product, if product is not available, there should be "Out of Stock" message

## **Expected Value**

"Out of Stock"

#### **Actual Value**

"Out of Stock"

Result of Test Case successful

#### **Test Definition**

AddCent():It takes 50 Cent and 25 Cent and checks whether sum of them is 75 Cent.

# **Expected Value**

75 Cent

# **Actual Value**

75 Cent

**Result of Test Case** 

successful

#### **Test Case 14**

#### **Test Definition**

AddCentNotEqual():It takes 50 Cent and 25 Cent and checks whether sum of them is not 50 Cent.

# **Expected Value**

<Not> 50 Cent

#### **Actual Value**

75 Cent

**Result of Test Case** 

successful

# **Test Case 15**

#### **Test Definition**

AddProduct(): It creates a machine and add a product which name is Redbull and check the first product of machine is Redbull.

## **Expected Value**

"Redbull"

#### **Actual Value**

"Redbull"

Result of Test Case

**Test Definition** 

AddProductNotEqual(): It creates a machine and add a product which name is Redbull and check the first product of machine is not Fanta.

**Expected Value** 

<Not> Fanta

**Actual Value** 

Redbull

**Result of Test Case** 

successful

**Test Case 17** 

**Test Definition** 

GiveChangeBalanceZero(): It controls the balance is 0 after taking change.

**Expected Value** 

0 TL

**Actual Value** 

0 TL

**Result of Test Case** 

successful

**Test Case 18** 

**Test Definition** 

GiveChangeBalanceNotZero(): It controls the balance is not 2.5TL after taking change.

**Expected Value** 

<Not> 2.5 TL

**Actual Value** 

0 TL

**Result of Test Case** 

**Test Definition** 

DefaultBalanceZero(): It adds a machine and check the default balance is 0 TL

**Expected Value** 

0 TL

**Actual Value** 

0 TL

**Result of Test Case** 

successful

Test Case 20

**Test Definition** 

DefaultBalanceNotZero(): It adds a machine and check the default balance is not 5 TL

**Expected Value** 

<Not> 5 TL

**Actual Value** 

0 TL

**Result of Test Case** 

# CONCLUSION

TO CONCLUDE THERE ARE 12 TEST CASES IN THIS DOCUMENT AND ALL OF THESE TEST CASES ARE SUCCESSFUL.

THEREFORE THESE CODES CAN BE IMPLEMENTED FOR VENDING MACHINE PROJECT.