Unit Test Report

for POS System

- **Test Cases Specification**
- **Test Summary Report**

Project Team
Team 5

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1 Introduction

1.1 Objectives

본 문서는 2017년 건국대학교의 소프트웨어공학 개론 강의의 실습과제를 설명한다. 실습 과제는 Point Of Sale (POS) System을 소프트웨어만을 이용한 가상의 시스템으로 구현 하는 것이다.

1.2 References

[2017SE_B][T5]SRA

[2017SE_B][T5]SDS

2 Unit test case specification

2.1 Test case specification identifier

Identifier	Input Specification	Output Specification
POS_1.3_000	mode : 1 n: 0	settle_flag: 0 function: Sale Mode
POS_1.3_001	mode : 2 n : 0	settle_flag: 0 function: Quantity Change Mode
POS_1.3_002	mode: 3 n : 0	settle_flag: 1 function: Money Received Mode
POS_1.3_003	mode: 4 n: 1	settle_flag: 0 function: Refund Mode
POS_1.3_004	mode: 4 n: 2	settle_flag: 1 function: NULL
POS_1.3_005	mode: 5 n: 0	settle_flag: 0 function: “Can not check Stock”
POS_1.3_006	mode: 5 n:1	settle_flag = 1 function: Stock Check Mode
POS_1.3_007	mode: 6 n: 0	settle_flag = 0 function: Reselect Mode
POS_1.4_000	temp: 1	1 (Power_on)
POS_1.4_001	temp: 2	0 (Power_off)
POS_2.1_000	barcode: 001	index: 1
POS_2.1_001	barcode: 010	index: 2

POS_2.1_002	barcode: 011	index: 3
POS_2.1_003	barcode: 100	index: 4
POS_2.1_004	barcode: 101	index: 5
POS_2.1_005	barcode: 110	index: 6
POS_2.1_006	barcode: 111	index: 7
POS_2.3_000	index: 1 sale_info_quantity: 0 sale_info_total_price: 0 sale_info_price: 1000 stock_info_quantity: 0	sale_info_quantity: 0 sale_info_total_price: 0 stock_info_quantity: 0 "Sold out"
POS_2.3_001	index: 1 sale_info_quantity: 1 sale_info_total_price: 500 sale_info_price: 1000 stock_info_quantity: 100	sale_info_quantity: 2 sale_info_total_price: 1500 stock_info_quantity: 99 "Sale_display"
POS_2.3_002	index: 2 sale_info_quantity: 3 sale_info_total_price: 1000 sale_info_price: 1500 stock_info_quantity: 4	sale_info_quantity: 4 sale_info_total_price: 2500 stock_info_quantity: 3 "Sale_display"
POS_2.3_003	index: 3 sale_info_quantity: 0 sale_info_total_price: 0 sale_info_price: 3000 stock_info_quantity: 0	sale_info_quantity: 0 sale_info_total_price: 0 stock_info_quantity: 0 "Sold out"
POS_2.3_004	index: 4 sale_info_quantity: 5 sale_info_total_price: 2000 sale_info_price: 500 stock_info_quantity: 50	sale_info_quantity: 6 sale_info_total_price: 2500 stock_info_quantity: 49 "Sale_display"
POS_2.3_005	index: 5 sale_info_quantity: 0 sale_info_total_price: 0 sale_info_price: 800 stock_info_quantity: 0	sale_info_quantity: 0 sale_info_total_price: 0 stock_info_quantity: 0 "Sold out"
POS_2.3_006	index: 6 sale_info_quantity: 10 sale_info_total_price: 5000	sale_info_quantity: 11 sale_info_total_price: 6200 stock_info_quantity: 2

	sale_info_price: 1200 stock_info_quantity: 3	"Sale_display"
POS_2.3_007	index: 7 sale_info_quantity: 0 sale_info_total_price: 0 sale_info_price: 2000 stock_info_quantity: 0	sale_info_quantity: 0 sale_info_total_price: 0 stock_info_quantity: 0 "Sold out"
POS_2.4_000	index: 1 recv_money: 4000 sale_info_total_price: 3000	snd_money: 1000 "Calculate_sale"
POS_2.4_001	index: 2 recv_money: 4000 sale_info_total_price :5000	snd_money: 0 "Received Money deffeceincy"
POS_2.4_002	index: 3 recv_money: 4000 sale_info_total_price: 2500	snd_money: 1500 "Calculate_sale"
POS_2.4_003	index: 4 recv_money: 4000 sale_info_total_price: 6000	snd_money: 0 "Received Money deffeceincy"
POS_2.4_004	index: 5 recv_money: 9000 sale_info_total_price: 5000	snd_money: 4000 "Calculate_sale"
POS_2.4_005	index: 6 recv_money: 2000 sale_info_total_price: 8000	snd_money: 0 "Received Money defficeincy"
POS_2.4_006	index: 7 recv_money: 4500 sale_info_total_price: 3300	snd_money: 1200 "Calculate_sale"
POS_2.5.1_000	index: 1 sale_info_quantity: 1 sale_info_total_price: 500 sale_info_price: 1000 stock_info_quantity: 100	sale_quantity: 2 sale_total_price: 1500 stock_quantity: 99 "Sale_display"
POS_2.5.1_001	index: 2 sale_info_quantity: 3 sale_info_total_price : 1000 sale_info_price: 1500 stock_info_quantity: 4	sale_quantity: 4 sale_total_price: 2500 stock_quantity: 3 "Sale_display"

POS_2.5.1_002	index: 3 sale_info_quantity: 0 sale_info_total_price : 0 sale_info_price: 3000 stock_info_quantity: 12	sale_quantity: 1 sale_total_price: 3000 stock_quantity: 11 "Sale_display"
POS_2.5.1_003	index: 4 sale_info_quantity: 5 sale_info_total_price: 2000 sale_info_price: 500 stock_info_quantity: 50	sale_quantity: 6 sale_total_price: 2500 stock_quantity: 49 "Sale_display"
POS_2.5.1_004	index: 5 sale_info_quantity: 4 sale_info_total_price: 0 sale_info_price: 800 stock_info_quantity: 20	sale_quantity: 5 sale_total_price: 800 stock_quantity: 19 "Sale_display"
POS_2.5.1_005	index: 6 sale_info_quantity: 10 sale_info_total_price: 5000 sale_info_price: 1200 stock_info_quantity: 3	sale_quantity: 11 sale_total_price: 6200 stock_quantity: 2 "Sale_display"
POS_2.5.1_006	index: 7 sale_info_quantity: 8 sale_info_total_price: 0 sale_info_price: 2000 stock_info_quantity: 10	sale_quantity: 9 sale_total_price: 2000 stock_quantity: 9 "Sale_display"
POS_2.5.1_007	index: 0 sale_info_quantity: 9 sale_info_total_price: 0 sale_info_price: 4000 stock_info_quantity: 5	sale_quantity: 9 sale_total_price: 0 stock_quantity: 5 "Invalid Index"
POS_2.5.2_000	index: 1 sale_info_quantity: 0 sale_info_total_price: 1000 s_r_0_i: 3 s_r_0_7_i: 1500	s_r_0: 3 s_r_0_7: 2500 "sale_display" "database_update" "receipt_list_file" "sale_receipt_print"
POS_2.5.2_001	index: 1 sale_info_quantity: 1	s_r_0: 3 s_r_0_7: 3000

	sale_info_total_price: 1000 s_r_0_i: 2 s_r_0_7_i: 2000	“sale_display” “database_update” “receipt_list_file” “sale_receipt_print”
POS_2.6.1_000	check: 0 barcode: 001 t_barcode: 001 list_data: 0	0
POS_2.6.1_001	check: 1 barcode: 001 t_barcode: 001 list_data: 0	0
POS_2.6.1_002	check: 0 barcode: 001 t_barcode: 001 list_data: 1	1
POS_2.6.1_003	check: 0 barcode: 001 t_barcode: 010 list_data: 1	2
POS_2.6.1_004	check: 1 barcode: 001 t_barcode: 001 list_data: 1	3
POS_2.6.1_005	check: 1 barcode: 001 t_barcode: 010 list_data: 1	4
POS_2.6.2_000	refund_i_quantity : 0 refund_i_name : “snack” stock_k_quantity : 2 stock_k_name: “water”	stock_k_quantity: 2 함수 호출
POS_2.6.2_001	refund_i_quantity : 1 refund_i_name : “snack” stock_k_quantity: 2 stock_k_name : “snack”	stock_k_quantity: 3 함수 호출
POS_2.6.2_002	refund_i_quantity : 1 refund_i_name “snack”	stock_k_quantity: 2 함수 호출

	stock_k_quantity: 2 stock_k_name "water"'	
POS_2.7.1_000	settle_flag: 0	0
POS_2.7.1_001	settle_flag: 1	1
POS_3.1.4_000	index : 1 sale_info_recv_money: 1000 sale_info_snd_money: 2000 sale_info_s_arr[index].name: "snack" sale_info_s_arr[index].quantity: 0 sale_info_s_arr[index].price: 1000 sale_info_total_price: 5000	화면 출력
POS_3.1.4_001	index : 1 sale_info_recv_money: 1000 sale_info_snd_money: 2000 sale_info_s_arr[index].name: "snack" sale_info_s_arr[index].quantity: 1 sale_info_s_arr[index].price : 1000 sale_info_total_price: 5000	화면 출력
POS_3.1.5_000	index: 1 stock_info_s_arr[index].quantity: 0 stock_info_s_arr[index].name: "snack" stock_info_s_arr[index].price: 1000	화면 출력
POS_3.1.5_001	index: 1 stock_info_s_arr[index].quantity: 1 stock_info_s_arr[index].name:"snack" stock_info_s_arr[index].price: 1000	화면 출력
POS_3.1.6_000	index I : 1 year1: 2017 month1: 11 day1: 6 hour1: 12 min1: 7 t_price: 4500 refund_info[i].name: "snack" refund_info[i].price: 3000 refund_info[i].quantity: 0	화면 출력
POS_3.1.6_001	index I : 1	화면 출력

	year1 : 2017 month1: 11 day1: 6 hour1: 12 min1: 7 t_price: 4500 refund_info[i].name: "snack" refund_info[i].price: 3000 refund_info[i].quantity: 1	
POS_3.1.7_000	index I :1 sale_info: 0 sale_info_s_arr[i].quantity: 2 sale_info_s_arr[i].name: "snack" sale_info_s_arr[i].price: 1000 sale_info_s_arr[i].total_price: 3500 stock_info_s_arr[i].name: "snack" stock_info_s_arr[i].price: 1000 stock_info_s_arr[i].quantity: 0 year1: 2017 month1: 11 day1: 6 hour1: 12 min1: 7	화면 출력
POS_3.1.7_001	index I : 1 sale_info: 1 sale_info_s_arr[i].quantity: 2 sale_info_s_arr[i].name: "snack" sale_info_s_arr[i].price: 1000 sale_info_s_arr[i].total_price : 3500 stock_info_s_arr[i].name: "snack" stock_info_s_arr[i].price: 1000 stock_info_s_arr[i].quantity: 0 year1: 2017 month1: 11 day1: 6 hour1: 12 min1: 7	화면 출력
POS_3.1.7_002	index I =1 sale_info: 1	화면 출력

	sale_info_s_arr[i].quantity: 2 sale_info_s_arr[i].name: "snack" sale_info_s_arr[i].price: 1000 sale_info_s_arr[i].total_price: 3500 stock_info_s_arr[i].name: "snack" stock_info_s_arr[i].price: 1000 stock_info_s_arr[i].quantity: 1 year1: 2017 month1: 11 day1: 6 hour1: 12 min1: 7	
POS_3.1.8_000	index I :1 sale_info_s_arr[i].name: "snack" sale_info_s_arr[i].price: 1000 sale_info_s_arr[i].quantity: 0 sale_info_total_price: 5000 year1 : 2017 month1: 11 day1: 6 hour1: 12 min1: 15	화면 출력
POS_3.1.8_001	index I : 1 sale_info_s_arr[i].name: "snack" sale_info_s_arr[i].price: 1000 sale_info_s_arr[i].quantity: 1 sale_info_total_price: 5000 year1: 2017 month1: 11 day1: 6 hour1: 12 min1: 15	화면 출력
POS_3.1.9_000	index I :1 refund_info_quantity: 0 refund_info_name: "snack" refund_info_price: 1000 year1: 2017 month1: 11 day1: 6	화면 출력

	hour1: 12 min1: 17	
POS_3.1.9_001	index I :1 refund_info_quantity: 1 refund_info_name: "snack" refund_info_price: 1000 year1: 2017 month1: 11 day1: 6 hour1: 12 min1:17	화면 출력
POS_3.1.10_000	index I : 1 stock_info_s_arr[i].name: "snack" stock_info_s_arr[i].price: 1000 stock_info_s_arr[i].quantity: 4 year1 : 2017 month1: 11 day1: 6 hour1: 12 min1: 19	화면 출력
POS_3.1.11_000	index I : 1 day1 : 6 month1: 11 year1: 2017 sale_info_temp[i].name: "snack" sale_info_temp[i].price: 1000 sale_info_temp[i].quantity: 0 refund_info_temp[i].name: "snack" refund_info_temp[i].price: 1000 refund_info_quantity: 0 total_sale_price: 2000 total_refund_price: 1000	화면 출력
POS_3.1.11_001	index I : 1 day1: 6 month1: 11 year1: 2017 sale_info_temp[i].name: "snack" sale_info_temp[i].price: 1000	화면 출력

	sale_info_temp[i].quantity: 0 refund_info_temp[i].name: "snack" refund_info_temp[i].price: 1000 refund_info_quantity: 1 total_sale_price: 2000 total_refund_price: 1000	
POS_3.1.11_002	index I : 1 day1: 6 month1: 11 year1: 2017 sale_info_temp[i].name: "snack" sale_info_temp[i].price: 1000 sale_info_temp[i].quantity: 1 refund_info_temp[i].name: "snack" refund_info_temp[i].price: 1000 refund_info_quantity: 0 total_sale_price: 2000 total_refund_price: 1000	화면 출력
POS_3.1.11_003	index I = 1 day1: 6 month1 : 11 year1: 2017 sale_info_temp[i].name: "snack" sale_info_temp[i].price: 1000 sale_info_temp[i].quantity: 1 refund_info_temp[i].name: "snack" refund_info_temp[i].price: 1000 refund_info_quantity: 1 total_sale_price:2000 total_refund_price:1000	화면 출력
POS_3.1.12_000	settle_flag: 2 get_time_flag: 0 check: 0 year: 2017 month: 11 day: 6 hour: 3 min: 47 start: 1	check : 0 get_time_flag: 0 update_flag: 0 return int: 0

	end: 100	
POS_3.1.12_001	settle_flag: 1 get_time_flag: 1 check: 1 year: 2017 month: 11 day: 6 hour: 3 min: 47 start: 0 end: 100	check = 0; get_time_flag :0 update_flag 0 return int 2

2.2 Test items

<Table 3 Test Design Identification> 참조

2.3 Input specifications

<Table 4 Test Case Identification> 참조

2.4 Output specifications

<Table 4 Test Case Identification> 참조

3 Environmental needs

(1) Hardware & Platform

gcc complier/linker

(2) Continuous Testing & Integrated Platform Environment

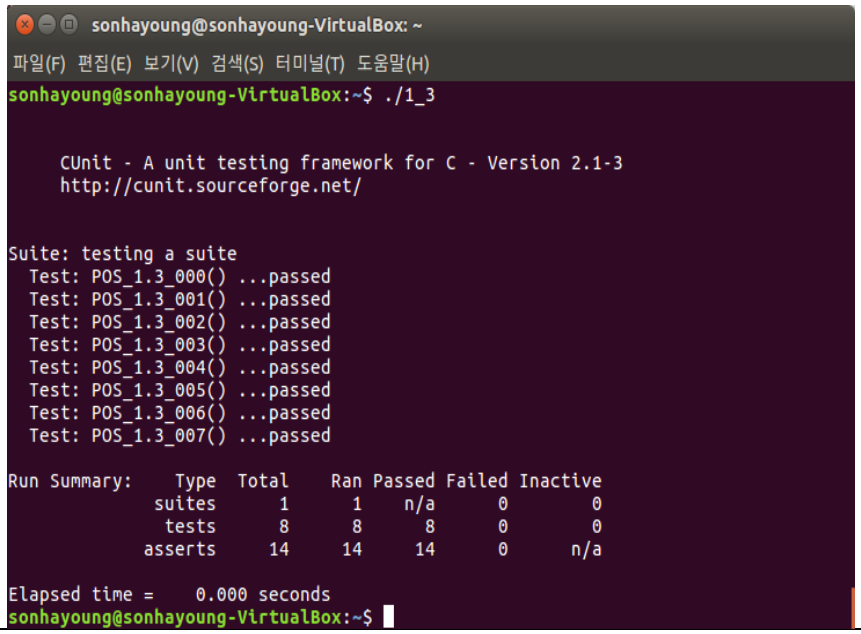
Cygwin

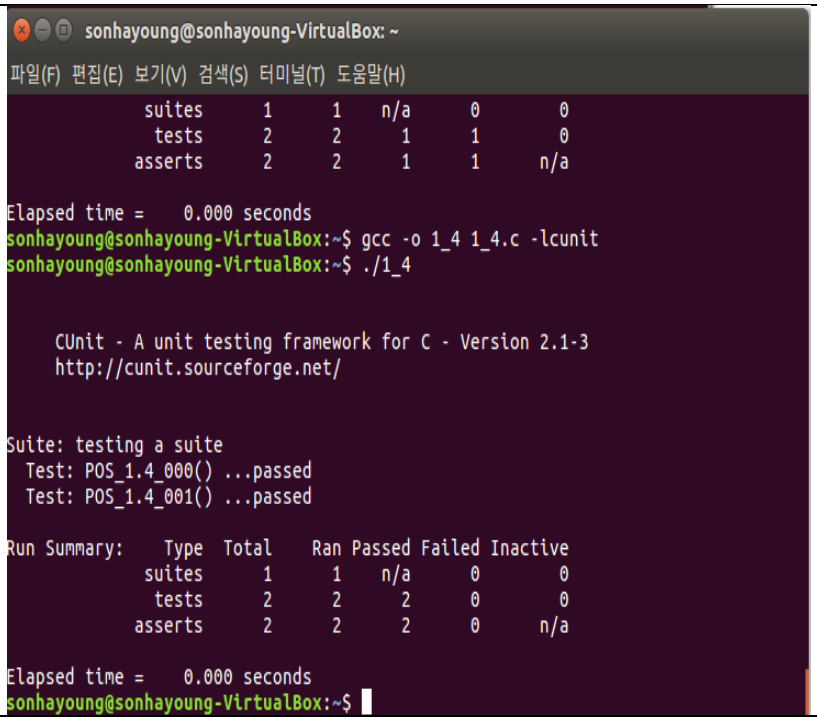
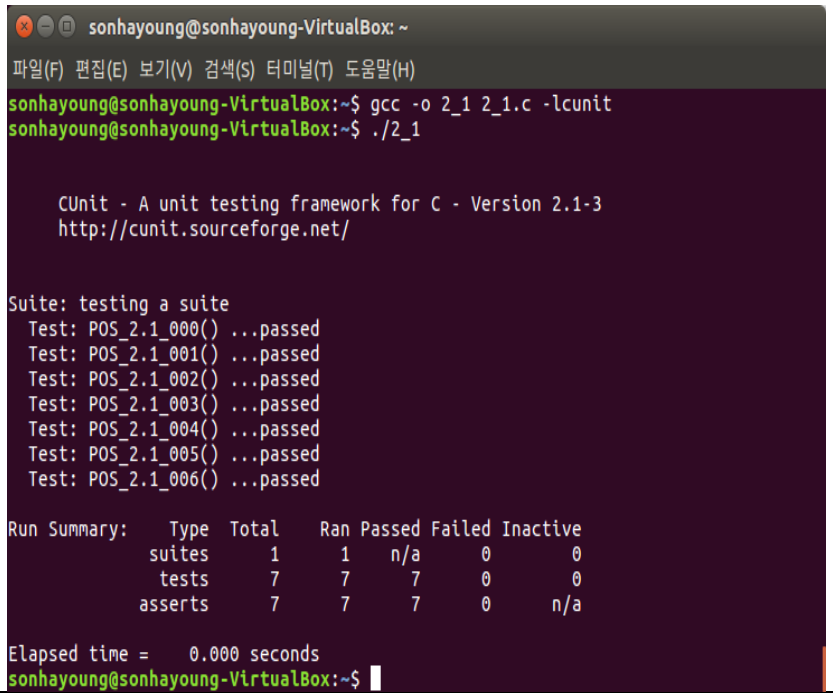
(3) Framework

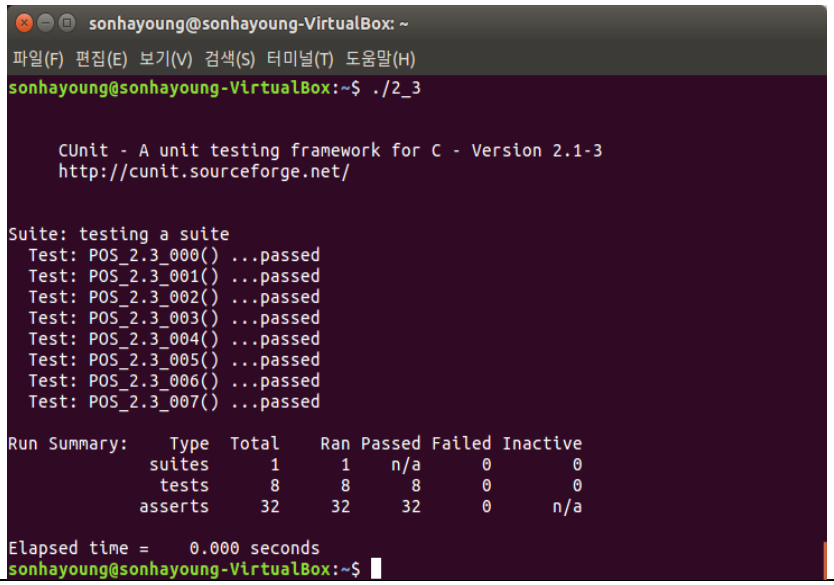
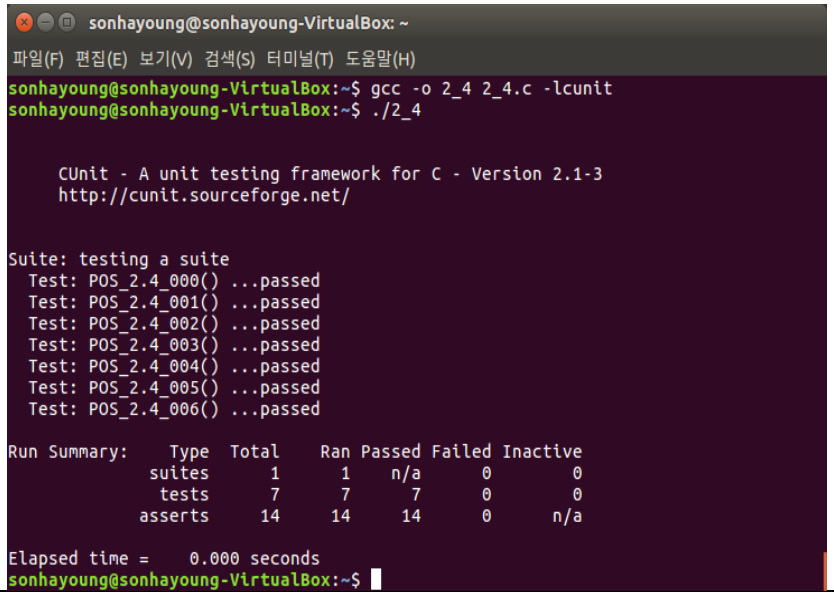
CUnit

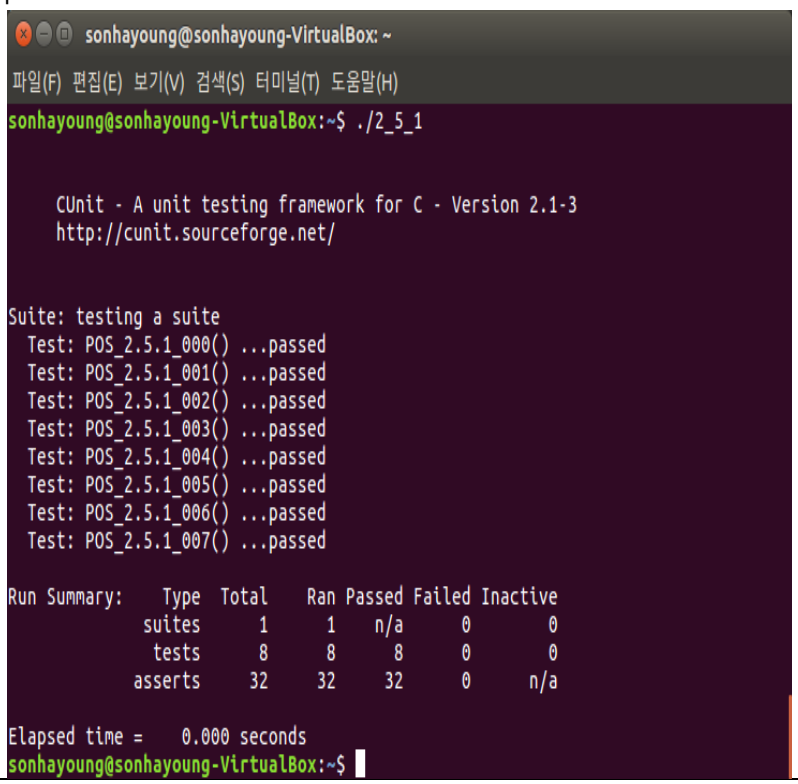
4 Unit test summary report

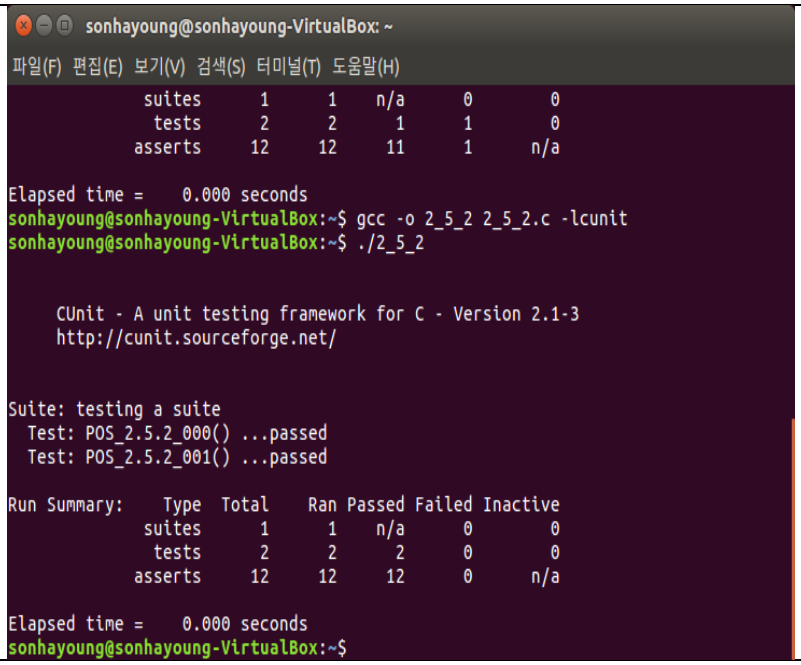
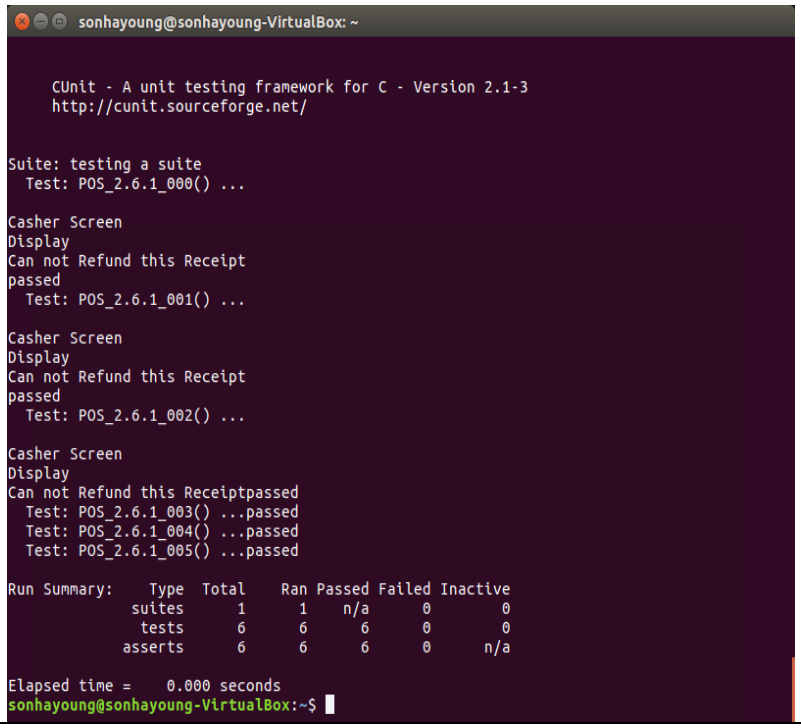
4.1 Test summary report identifier

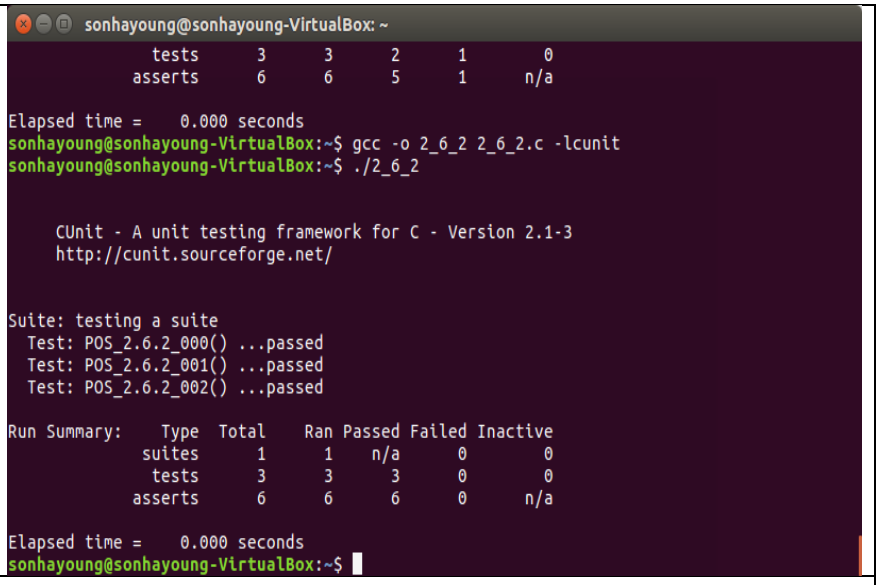
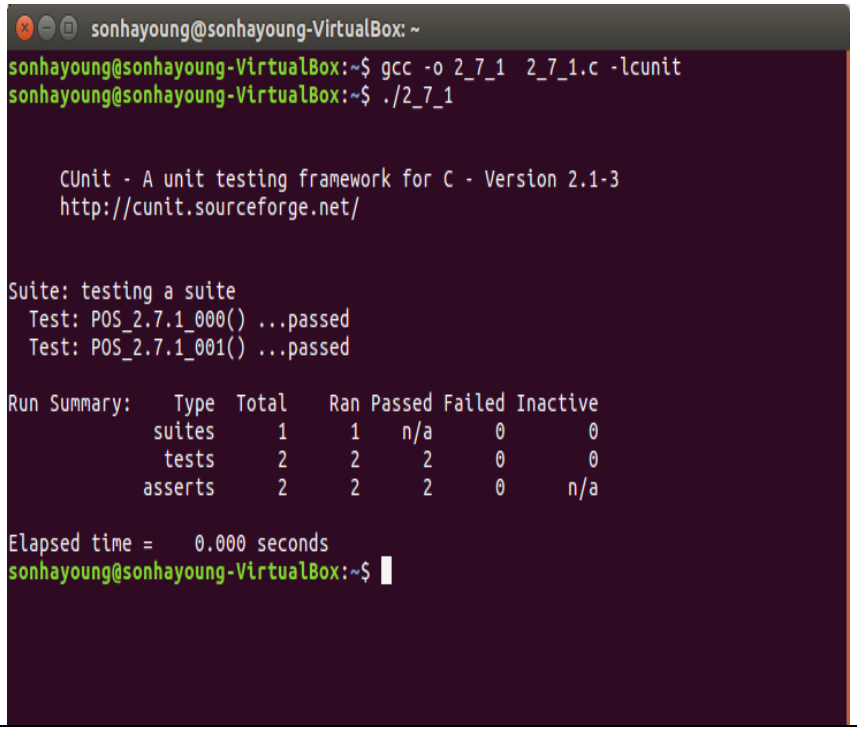
Identifier	Result
POS_1.3_000	Passed 
POS_1.3_001	Passed
POS_1.3_002	Passed
POS_1.3_003	Passed
POS_1.3_004	Passed
POS_1.3_005	Passed
POS_1.3_006	Passed
POS_1.3_007	Passed
POS_1.4_000	Passed

	
POS_1.4_001	Passed
POS_2.1_000	Passed 
POS_2.1_001	Passed
POS_2.1_002	Passed
POS_2.1_003	Passed
POS_2.1_004	Passed
POS_2.1_005	Passed
POS_2.1_006	Passed

POS_2.3_000	Passed 
POS_2.3_001	Passed
POS_2.3_002	Passed
POS_2.3_003	Passed
POS_2.3_004	Passed
POS_2.3_005	Passed
POS_2.3_006	Passed
POS_2.3_007	Passed
POS_2.4_000	Passed 
POS_2.4_001	Passed
POS_2.4_002	Passed
POS_2.4_003	Passed
POS_2.4_004	Passed

POS_2.4_005	Passed
POS_2.4_006	Passed
POS_2.5.1_000	passed 
POS_2.5.1_001	passed
POS_2.5.1_002	passed
POS_2.5.1_003	passed
POS_2.5.1_004	passed
POS_2.5.1_005	passed
POS_2.5.1_006	passed
POS_2.5.1_007	passed
POS_2.5.2_000	passed

	
POS_2.5.2_001	passed
POS_2.6.1_000	passed 
POS_2.6.1_001	passed
POS_2.6.1_002	passed
POS_2.6.1_003	passed
POS_2.6.1_004	passed
POS_2.6.1_005	passed
POS_2.6.2_000	passed

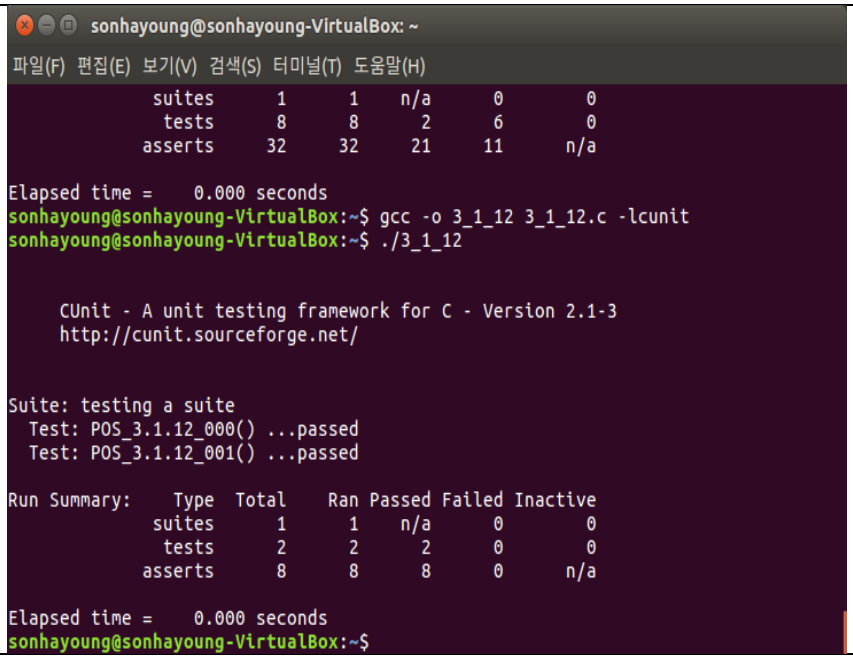
	
POS_2.6.2_001	passed
POS_2.6.2_002	passed
POS_2.7.1_000	passed 
POS_2.7.1_001	passed
POS_3.1.4_000	Passed

	:1 Casher Screen Display Total Sale Money 5000 Receive Money 1000 Send Money 2000 Client Screen Display Total Sale Money 5000 Receive Money 1000 Send Money 2000
POS_3.1.4_001	Passed :2 Casher Screen Display Total Sale Money 5000 Receive Money 1000 Send Money 2000 snack quantity : 1 / price : 1000 / sum_price : 1000 Client Screen Display Total Sale Money 5000 Receive Money 1000 Send Money 2000
POS_3.1.5_000	Passed :3 Casher Screen Display
POS_3.1.5_001	Passed Casher Screen Display snack quantity : 1 / price : 1000
POS_3.1.6_000	Passed

	:5 Casher Screen Display Date 2017.11.06 12:07 Total Refund Money 4500 Client Screen Display Date 2017.11.06 12:07 Total Refund Money 4500
POS_3.1.6_001	Passed :6 Casher Screen Display Date 2017.11.06 12:07 Total Refund Money 4500 snack quantity : 3000 / price : 1 / sum_price : 3000 Client Screen Display Date 2017.11.06 12:07 Total Refund Money 4500
POS_3.1.7_000	Passed :7 make_stock_file part 20171106_product.txtDate : 2017.11.06 (년 .월 .일) Sale Product Name, Price, Quantity snack, 1000, 0
POS_3.1.7_001	Passed :8 make_stock_file part 20171106_product.txtDate : 2017.11.06 (년 .월 .일) Sale Product Name, Price, Quantity snack, 1000, 0 sale_list_file part 20171106_sale_management.txtReceipt Num : 2017.11.06.12.07 (년 .월 .일 .시 .분) Date : 2017.11.06 (년 .월 .일) Sale Product Name, Price, Quantity, Sum_price snack, 1000, 2, 2000 Total Sale price : 3500
POS_3.1.7_002	Passed

	:9 make_stock_file part 20171106_product.txtDate : 2017.11.06 (년 .월 .일) Sale Product Name, Price, Quantity snack, 1000, 1 sale_list_file part 20171106_sale_management.txtReceipt Num : 2017.11.06.12.07 (년 .월 .일 .시 .분) Date : 2017.11.06 (년 .월 .일) Sale Product Name, Price, Quantity, Sum_price snack, 1000, 2, 2000 Total Sale price : 3500
POS_3.1.8_000	Passed :10 sale_201711061215.txtReceipt Num : 2017.11.06.12.15 (년 .월 .일 .시 .분) Date : 2017.11.06 (년 .월 .일) Sale Product Total Sale Price : 5000
POS_3.1.8_001	Passed :11 sale_201711061215.txtReceipt Num : 2017.11.06.12.15 (년 .월 .일 .시 .분) Date : 2017.11.06 (년 .월 .일) Sale Product Name, Price, Quantity, Sum_price snack, 1000, 1, 1000 Total Sale Price : 5000
POS_3.1.9_000	Passed :12 refund_201711061217.txtReceipt Num : 2017.11.06.12.17 (년 .월 .일 .시 .분) Date : 2017.11.06 (년 .월 .일) Refund Product Total Refund Price : 0
POS_3.1.9_001	Passed :13 refund_201711061217.txtReceipt Num : 2017.11.06.12.17 (년 .월 .일 .시 .분) Date : 2017.11.06 (년 .월 .일) Refund Product Name, Price, Quantity, Sum_price snack, 1000, 1, 1000 Total Refund Price : 1000
POS_3.1.10_000	Passed :14 stock_20171106.txtDate : 2017.11.06.12.19 (년 .월 .일 .시 .분) Name, Price, Quantity snack, 1000, 4
POS_3.1.11_000	Passed

	:15 settle_20171106.txtDate : 2017.11.06 (년 .월 .일) Sale Product Total Sale Price : 2000 Refund Product Total Refund Price : 1000
POS_3.1.11_001	Passed :16 settle_20171106.txtDate : 2017.11.06 (년 .월 .일) Sale Product Total Sale Price : 2000 Refund Product Name, Price, Quantity, Sum_price snack, 1000, 1, 1000 Total Refund Price : 1000
POS_3.1.11_002	Passed :17 settle_20171106.txtDate : 2017.11.06 (년 .월 .일) Sale Product Name, Price, Quantity, Sum_price snack, 1000, 1, 1000 Total Sale Price : 2000 Refund Product Total Refund Price : 1000
POS_3.1.11_003	Passed :18 settle_20171106.txtDate : 2017.11.06 (년 .월 .일) Sale Product Name, Price, Quantity, Sum_price snack, 1000, 1, 1000 Total Sale Price : 2000 Refund Product Name, Price, Quantity, Sum_price snack, 1000, 1, 1000 Total Refund Price : 1000
POS_3.1.12_000	Passed

	
POS_3.1.12_001	Passed

4.2 Evaluation

Total test case: 73개

Passed: 73개

Failed: 0개