

# Unit Test Report for POS System

- Test Cases Specification
- Test Summary Report

**Project Team**

**Team 5**

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**Team Information**

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## 1 Introduction

### 1.1 Objectives

본 문서는 실습과제로 디자인한 Point of Sale System을 unit 단위로 구현하여 unit testing 하기 위한 결과 문서이다.

### 1.2 References

T5.SRA\_ver2

T5.SDS\_ver2

## 2 Unit test case specification

### 2.1 Test case specification identifier

<Table 1>

Identifier	Input Specifications	Output Specifications
<b>Base_screen</b>	STATE = 0	기본 화면 출력
<b>Sale_screen_transition</b>	STATE = 0 Transition = 1	STATE = 1 Request_stock()
<b>Refund_screen_transition</b>	STATE = 0 Transition = 2	STATE = 2
<b>Stock_screen_transition</b>	STATE = 0 Transition = 3	STATE = 3 Request_stock()
<b>Sale_screen</b>	STATE = 1 Item = 0	판매 화면 출력
<b>Sale_screen</b>	STATE = 1 Item = 7	판매 화면 출력
<b>Sale_Scan</b>	STATE = 1 Item = 1 001의 item갯수 = 1 Scan = 001	001의 item갯수 = 2 scan = 0
<b>Sale_Scan(fault)</b>	STATE = 1 Item = 1 001의 item갯수 = 1 Scan = 001	ERROR = 1 Scan = 0
<b>Increase</b>	STATE = 1 Item = 1	001의 item갯수 = 2

	001의 item갯수 = 1 Scan = 001	
<b>Increase(fault)</b>	STATE = 1 Item = 1 001의 item갯수 = 1 Scan = 001	ERROR = 1
<b>error</b>	STATE = 1 ERROR = 1	에러 메시지 출력 ERROR = 0
<b>Decrease</b>	STATE = 1 Item = 1 001의 item갯수 = 2 Scan = 001	001의 item갯수 = 1
<b>remove</b>	STATE = 1 Item = 1 item갯수 = 2 Scan = 001	item갯수 = 0
<b>Cost</b>	STATE = 1 Transition = 4	STATE = 4 거스름돈 = 받은 금액 - 총액 Update()
<b>Refund_screen</b>	STATE = 2 Value = 0	환불 화면 출력
<b>Refund_screen</b>	STATE = 2 Value = 0001	환불 화면 출력
<b>Refund_scan</b>	STATE = 2 Scan = 0001	Value = 0001
<b>Refund_scan(fault)</b>	STATE = 2 Scan = 0002	ERROR = 1
<b>ERROR</b>	STATE = 2 ERROR = 1	에러 메시지 출력 ERROR = 0
<b>Refund_accept</b>	STATE = 2 Value = 0001 Transition = 5	STATE = 5 Update()
<b>Refund_cancel</b>	STATE = 2 Transition = 0 Value = 0	STATE = 0
<b>판매완료</b>	STATE = 4	판매 완료 화면 출력
<b>환불완료</b>	STATE = 5	환불 완료 화면 출력

## 2.2 Test items

<Table 1> 참고

## 2.3 Input specifications

<Table 1> 참고

## 2.4 Output specifications

<Table 1> 참고

## 3 Environmental needs

OS System 의 Unit Test를 위한 환경적 요구사항은 다음과 같다.

## (1) Platform

gcc compiler / linker

## (2) Unit test framework

CUnit

## (3) Integrated Platform

Cygwin

## 4 Unit test summary report

## 4.1 Test summary report identifier

Identifier	Input Specifications	Output Specifications	
<b>Base_screen</b>	STATE = 0	기본 화면 출력	PASSED
<b>Sale_screen_transition</b>	STATE = 0 Transition = 1	STATE = 1 Request_stock()	PASSED
<b>Refund_screen_transition</b>	STATE = 0 Transition = 2	STATE = 2	PASSED
<b>Stock_screen_transition</b>	STATE = 0 Transition = 3	STATE = 3 Request_stock()	PASSED
<b>Sale_screen</b>	STATE = 1 Item = 0	판매 화면 출력	PASSED
<b>Sale_screen</b>	STATE = 1	판매 화면 출력	PASSED

	Item = 7		
<b>Sale_Scan</b>	STATE = 1 Item = 1 001의 item갯수 = 1 Scan = 001	001의 item갯수 = 2 scan = 0	PASSED
<b>Sale_Scan(fault)</b>	STATE = 1 Item = 1 001의 item갯수 = 1 Scan = 001	ERROR = 1 Scan = 0	PASSED
<b>Increase</b>	STATE = 1 Item = 1 001의 item갯수 = 1 Scan = 001	001의 item갯수 = 2	PASSED
<b>Increase(fault)</b>	STATE = 1 Item = 1 001의 item갯수 = 1 Scan = 001	ERROR = 1	PASSED
<b>error</b>	STATE = 1 ERROR = 1	에러 메시지 출력 ERROR = 0	PASSED
<b>Decrease</b>	STATE = 1 Item = 1 001의 item갯수 = 2 Scan = 001	001의 item갯수 = 1	PASSED
<b>remove</b>	STATE = 1 Item = 1 item갯수 = 2 Scan = 001	item갯수 = 0	PASSED
<b>Cost</b>	STATE = 1 Transition = 4	STATE = 4 거스름돈 = 받은 금액 - 총액 Update()	PASSED
<b>Refund_screen</b>	STATE = 2 Value = 0	환불 화면 출력	PASSED
<b>Refund_screen</b>	STATE = 2 Value = 0001	환불 화면 출력	PASSED
<b>Refund_scan</b>	STATE = 2 Scan = 0001	Value = 0001	PASSED
<b>Refund_scan(fault)</b>	STATE = 2	ERROR = 1	PASSED

	Scan = 0002		
<b>ERROR</b>	STATE = 2 ERROR = 1	에러 메시지 출력 ERROR = 0	PASSED
<b>Refund_accept</b>	STATE = 2 Value = 0001 Transition = 5	STATE = 5 Update()	PASSED
<b>Refund_cancel</b>	STATE = 2 Transition = 0 Value = 0	STATE = 0	PASSED
<b>판매완료</b>	STATE = 4	판매 완료 화면 출력	PASSED
<b>환불완료</b>	STATE = 5	환불 완료 화면 출력	PASSED

#### 4.2 Evaluation