SOFTWARE TESTING AND MAINTENANCE DOCUMENT

For

[RTECH ORDERING FOOD SYSTEM]

Prepared By:

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# 1.0 INTRODUCTION

## 1.1 Purpose

The purpose of this document is to provide the details of the design of the system. This document gives a better understanding of the design process for this system. It addresses the design implementation of Gym Management System.

## 1.2 Scope

This document is written for the ROF system. This document contains information about the system consideration, system architecture, low level design and high level design.

## 1.3 Intended Audience

The intended audiences of this document are the RTECH Software Development Team from RTECH Sdn. Bhd. and the representatives from the client.

## 1.4 Product

The name of product is RTECH Ordering Food System or “ROFS” in short. R0FS is an application foods and drinks ordering via online services. The system is applicable for admin, and member.

## 1.5 Definition

|  |  |
| --- | --- |
| GMS | Gym Management System (GMS) is an online application system allows member to view the information about the Gym Centre including the activities held, packages provided, instructors’ information and invoice details. The system is applicable for admin, and member. |
| Admin | Admin is staff of the Gym Management System that can access to the system. They able to manage each data in the database and do not have limited access to the system. |
| User | Users are member for Gym Management System that has their own interface which allows them view their own interface and have limited access to the system. |

## 1.6 Acronyms

**SRS** System Requirement Specification

**SDD** Software Design Document

**GMS** Gym Management System

**GUI** Graphical User Interface

# 2.0 ROFS Test Plan

## 2.1 Test Item

The following documents will provide the basis for defining correct operation:

1. ROFS System Requirement Specification ( SRS )
2. ROFS Software Design Document ( SDD )

The test items include all system features in ROFS:

## 2.2 Test Traceability Matrix

The following table contains the function in ROFS and its traceability:

|  |  |  |  |
| --- | --- | --- | --- |
| **Function ID.** | **Risk Level** | **Function** | **Source Function** |
| F001 | High | Login and Register | SRS |
| F002 | High | Order Food and Drink | SRS |
| F003 | High | Schedule | SRS |
| F004 | High | Package | SRS |
| F005 | High | Invoice | SRS |
| F006 | High |  | SRS |
| F007 | High |  | SRS |

**Table 2: Test Traceability Matrix**

## 2.3 Features to Be Tested

The following table contains the features to be tested based on ROFS Software Requirement Specifications (SRS).

|  |  |  |
| --- | --- | --- |
| **Function ID.** | **Risk Level** | **Function** |
| F001 | High | Login and Registration |
| F002 | High | Order Food and Drink |
| F003 | High | Schedule |
| F004 | High | Package |
| F005 | High | Invoice |
| F006 | High |  |
| F007 | High |  |

**Table 3: Features to Be Tested**

## 2.4 Features Not to Be Tested

Aside from the features listed, other aspects of the system are not covered in this test plan. This includes:

* Operation procedure

This test plan is for system level test, operation procedure is not covered here.

* Network security

This test plan is designed for functional test, security is not covered.

## 2.5 Approach

This test will also be a black-box test where test cases are derived using black-box testing techniques such as:

* Equivalence Partitioning
* Boundary Value analysis
* Decision Table testing
* State Transition testing
* Use Case Testing

## 2.6 Item Pass/Fail Criteria

The system must satisfy the following criteria in order to pass:

* All test cases must be passed
* 0% calculation error in any function involving monetary transaction
* No deadlock during operation

## 2.7 Test Deliverables

The following document will be generated by the system test group and will be delivered during system testing:

Test documentation:

* Test Plan
* Test Transmittal Report
* Test Design Specification
* Test Case Specification
* Test Procedure Specifications
* Test Logs
* Test Incident Report
* Test Summary Report
* Test Completion Report

## 2.8 Entry Criteria

The following items are needed before testing can begin:

* Requirements document for ROFS 1.1
* Software Under Test: ROFS 1.1

## 2.9 Exit Criteria

The following items are needed before testing can end:

* All Test Deliverables have been delivered to client
* Test execution has been completed
* Open defect at the end of final iteration shall be:
* Zero fatal defect
* Zero major defect
* <= three minor defects

## 2.10 Planned Activity and Tasks

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Task** | **Activities** | **Date** |
| 1 | Test Planning and Control | * Requirement view * Identify risk, staffing and scheduling * Documenting test plan * Technical review * Submission and approval of test plan |  |
| 2 | Test Analysis and Design | * Analyse product * Develop test design specification * Prepare test case specification |  |
| 3 | Test Environment | * Setup GMS * Identify and acquired test data |  |
| 4 | Test Implementation and Execution | * Prepare test procedure specification * Perform functional test * Record test result * Analyse test result |  |
| 5 | Documenting Test | * Summarize test result |  |
| 6 | Documenting Test Closure | * Collecting test process data |  |
| 7 | Test Complete | * Delivery product to client |  |

## 2.11 Risk and Contingency

This section identifies the risk issues that may impact successful completion of the system testing activities in ROFS. The potential likelihood, impact and mitigation plan was described in the following tables.

|  |  |
| --- | --- |
| 1 | Rated as Low |
| 2 | Rated as Medium |
| 3 | Rated as High |
| 4 | Rated as Extreme |

**Table 5: Likelihood Rating Table**

|  |  |
| --- | --- |
| 1 | Rated as Low |
| 2 | Rated as Medium |
| 3 | Rated as High |
| 4 | Rated as Extreme |

**Table 6: Priority Rating Table**

## 2.11 Function List

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Function ID.** | **Function** | **Likelihood** | **Impact** | **Risk Exposure** | **Treatment Plan** |
| F001 | Login & Registration | 3 | 3 | 3 | Perform functional test |
| F002 | Order Foods & Drinks | 3 | 3 | 3 | Perform functional test |
| F003 | Schedule | 3 | 3 | 3 | Perform functional test |
| F004 | Package | 3 | 3 | 3 | Perform functional test |
| F005 | Invoice | 3 | 3 | 3 | Perform functional test |
| F006 |  | 3 | 3 | 3 | Perform functional test |
| F007 |  | 3 | 3 | 3 | Perform functional test |

**Table 7: Function List**

# 3.0 Test Design Specification

## 3.1 Features to Be Tested

The following table contains the features to be tested based on ROFS Software Requirement Specification (SRS) for this iteration. Listed together are the function ID and its corresponding functions and estimated risk level.

|  |  |  |
| --- | --- | --- |
| **Function ID.** | **Risk Level** | **Function** |
| F001 | High | Login & Registration |
| F002 | High | Order Foods & Drinks |
| F003 | High | Schedule |
| F004 | High | Package |
| F005 | High | Invoice |
| F006 | High |  |
| F007 | High |  |

**Table 8: Features to Be Tested**

# 4.0 Test Cases Specification

## 4.1 Login and Registration Document Control

## 4.2 Order Foods and Drinks Document Control

## 4.3 Login and Registration Document Control

## 4.4 Login and Registration Document Control

## 4.5 Login and Registration Document Control

## 4.6 Login and Registration Document Control

# 5.0 Test Procedure Specification

## 5.1 Login and Registration Document Control

## 5.2 Order Foods and Drinks Document Control

## 5.3 Login and Registration Document Control

## 5.4 Login and Registration Document Control

## 5.5 Login and Registration Document Control

## 5.6 Login and Registration Document Control

# 6.0 Test Log

## 6.1 Login and Registration Document Control

## 6.2 Order Foods and Drinks Document Control

## 6.3 Login and Registration Document Control

## 6.4 Login and Registration Document Control

## 6.5 Login and Registration Document Control

## 6.6 Login and Registration Document Control

# 7.0 Test Incident Report

## 7.1 Login and Registration Document Control

## 7.2 Order Foods and Drinks Document Control

## 7.3 Login and Registration Document Control

## 7.4 Login and Registration Document Control

## 7.5 Login and Registration Document Control

## 7.6 Login and Registration Document Control

# 8.0 Test Summary Report

## 8.1 Login and Registration Document Control

## 8.2 Order Foods and Drinks Document Control

## 8.3 Login and Registration Document Control

## 8.4 Login and Registration Document Control

## 8.5 Login and Registration Document Control

## 8.6 Login and Registration Document Control