# System Test Plan and Result

## 1. Overview

### 1.1 Introduction

This document is the System Integration Test Plan for the Combined System Development Services for Pilot Project of CDPSS of the Buildings Department. It provides a detailed description and result of the System Integration Test.

### 1.2 Purpose of Document

This document describes the scope, methodology, procedures, control, responsible parties, schedule, and other necessary arrangements for the SIT of CDPSS. This plan and specification provide the baseline for the SIT to prove that the System is able to meet the functional specifications and data migration specifications as specified in the Project Specifications of the Tender.

### 1.3 Document of Organization

This document consists of the following sections-

1. The ?Overview? section is to explain the contents and purposes of this document;
2. The ?Test Plan? section refers to the testing approach adopted for the SIT and identify the role and responsibilities of the relevant parties;
3. The ?Test Specification? section describes the control procedures, test entry and termination criteria and the necessary arrangements for setting up the testing environment, test data and database, and the test cases for the SIT; and
4. The ?Test Report? section describes the content of functional test reports for the SIT, A description of the test cases, including the description, involved role, result, actual date and system environment

## 2. Purpose

The purposes of this System Test Plan are:

* To define the types of tests to be carried out on the system
* To define the requirements for test data to be used
* To establish the test data which will enable the system as a whole to be tested according to the Plan and Specification
* To show the outcome of the system tests, including re-testing carried out after any necessary corrective has been taken.

## 3. Scope

The tests are focused on the functional, non-functional and technical features of the new Information Framework system.

1. Function Test of
   1. Information Framework Web Site
   2. Institution Web-Site
   3. Administration Module
2. System Integration Test
   1. System backup, Fall-back and Recovery Test
   2. Performance, Stress and Load Test

* **Function Test**

The objective of the function test is to measure the effectiveness and efficiency of the system in compliance with the User Requirements and System Design. The Function Test is based on the Function Test Plan, which contains itinerary and procedures to cover the test cases based upon user requirements.

* **System Backup, Fall-back and Recovery Test**

The backup and recovery test is to test that the system are protected from various types of failure and be able to recover to a consistent state after failure.

* **Performance, Stress and Load Test**

The objective of performance test is to determine the amount of execution time spent on various parts of the program. Many programs have specific performance or efficiency objectives, such as response times and throughput rates under certain workload and configuration conditions. Performance testing should attempt to show that the system does not satisfy its performance objectives.

## 4. Test Plan

This test plan is divided into two parts - function tests and system integration tests.

In the function tests, the following functional areas will be tested:

1. User Management
2. Form and Record
3. Report and Alert

The system integration test will be taken after all the components have been fully tested and integrated.

1. System backup, Fallback and Recovery Test
2. Performance, Stress and Load Test

### 4.1 Test Schedule

|  | **Test Tasks** | **Estimated Effort** | **Start Date** | **End Date** | **Responsible by** |
| --- | --- | --- | --- | --- | --- |
| 1 | Prepare and review SIT test plan and test cases | 60 days | Sep 2022 | Nov 2023 | MC and ITU |
| 2 | Functional Test for non-production servers | 11 months | Nov 10, 2022 | Oct 30, 2023 | MC |
| 3 | System Tests on non-production servers | 11 months | Nov 10, 2022 | Oct 30, 2023 | MC |
| 4 | Functional Test for pre-production servers | 2 days | Dec 18, 2023 | Dec 20, 2023 | MC |
| 5 | System Tests for pre-production servers | 2 days | Dec 18, 2023 | Dec 20, 2023 | MC |

## 4.2 Role and Responsibilities

| **Team / Role** | **Responsibilities** thoughts:The user wants me to create a markdown document for "System Test Plan and Result" based on the content of the provided text files. I should structure the markdown document to include:

1. Title: "System Test Plan and Result"
2. Content from code1.txt: Use the "File Summary", "Directory Structure", and "Files" sections.
3. Content from code3.txt: Use the "Test Cases Result" and "Performance, Stress and Load Test Result" sections.
4. Content from stp\_i1.md: Use the "Overview", "Purpose", "Scope", and "Test Plan" sections.
5. Integrate "User Requirements" from urs\_a1.md if applicable.
6. Format the document using Markdown syntax for headings, lists, tables, and code blocks.

Let's start generating the markdown document step-by-step.```markdown

# System Test Plan and Result

## 1. File Summary (from code1.txt)

This file contains a merged representation of the entire codebase, combining all repository files into a single document. It is designed to be easily consumable by AI systems for analysis, code review, or other automated processes.

For detailed information, please refer to the original code1.txt file.

## 2. Directory Structure (from code1.txt)

bd-scs-backend-backend-main/app.js  
bd-scs-backend-backend-main/config/application.js  
bd-scs-backend-backend-main/config/cat.js  
bd-scs-backend-backend-main/config/collections.js  
bd-scs-backend-backend-main/config/letterTemplates.js  
bd-scs-backend-backend-main/config/replyDays.js  
bd-scs-backend-backend-main/config/task.js  
bd-scs-backend-backend-main/config/user.js  
bd-scs-backend-backend-main/middlewares/requireUser.js  
bd-scs-backend-backend-main/models/AdrBlkFileRef.js  
bd-scs-backend-backend-main/models/Application\_old.js  
bd-scs-backend-backend-main/models/Application.js  
bd-scs-backend-backend-main/models/Attachment.js  
bd-scs-backend-backend-main/models/BsBlock.js  
bd-scs-backend-backend-main/models/Case.js  
bd-scs-backend-backend-main/models/Eminute.js  
bd-scs-backend-backend-main/models/Notification.js  
bd-scs-backend-backend-main/models/OAuthToken.js  
bd-scs-backend-backend-main/models/Submission.js  
bd-scs-backend-backend-main/models/SysFileRef.js  
bd-scs-backend-backend-main/models/Task.js  
bd-scs-backend-backend-main/models/User.js  
bd-scs-backend-backend-main/public/assets/app-DoNz6BTu.js  
bd-scs-backend-backend-main/routes/applications.js  
bd-scs-backend-backend-main/routes/attachments.js  
bd-scs-backend-backend-main/routes/auth.js  
bd-scs-backend-backend-main/routes/cases.js  
bd-scs-backend-backend-main/routes/fileReferences.js  
bd-scs-backend-backend-main/routes/index.js  
bd-scs-backend-backend-main/routes/OAuthModel.js  
bd-scs-backend-backend-main/routes/submissions.js  
bd-scs-backend-backend-main/routes/tasks.js  
bd-scs-backend-backend-main/routes/users.js  
bd-scs-backend-backend-main/scripts/assignUserType.js  
bd-scs-backend-backend-main/scripts/FixBsBlock.js  
bd-scs-backend-backend-main/scripts/importAdrFileRef.js  
bd-scs-backend-backend-main/scripts/importBsBlock.js  
bd-scs-backend-backend-main/scripts/importFileRef.js  
bd-scs-backend-backend-main/scripts/importTeam.js  
bd-scs-backend-backend-main/scripts/importUsers.js  
bd-scs-backend-backend-main/scripts/migrateGroupAndDepartment.js  
bd-scs-backend-backend-main/scripts/setUpDb.js  
bd-scs-backend-backend-main/scripts/syncFrontendSubmissions.js  
bd-scs-backend-backend-main/utils/application.js  
bd-scs-backend-backend-main/utils/hkpostUtils.js  
bd-scs-backend-backend-main/utils/letter.js  
bd-scs-backend-backend-main/utils/MongoDBHelper.js  
bd-scs-backend-backend-main/utils/sendEmail.js  
bd-scs-backend-backend-main/utils/SQLDBHelper.js  
bd-scs-backend-web-main/src/apis/application.js  
bd-scs-backend-web-main/src/apis/auth.js  
bd-scs-backend-web-main/src/apis/case.js  
bd-scs-backend-web-main/src/apis/letterTemplate.js  
bd-scs-backend-web-main/src/apis/task.js  
bd-scs-backend-web-main/src/apis/user.js  
bd-scs-backend-web-main/src/App.test.js  
bd-scs-backend-web-main/src/constants/colors.js  
bd-scs-backend-web-main/src/constants/index.js  
bd-scs-backend-web-main/src/constants/letters.js  
bd-scs-backend-web-main/src/constants/options.js  
bd-scs-backend-web-main/src/constants/tasks.js  
bd-scs-backend-web-main/src/i18n.js  
bd-scs-backend-web-main/src/reportWebVitals.js  
bd-scs-backend-web-main/src/setupTests.js  
bd-scs-backend-web-main/src/transactions/en/index.js  
bd-scs-backend-web-main/src/transactions/zh/index.js  
bd-scs-nodejs-frontend-main/src/app.js  
bd-scs-nodejs-frontend-main/src/migrations/20241013174558-add\_Synced\_field.js  
bd-scs-nodejs-frontend-main/src/models/AdrBlk.js  
bd-scs-nodejs-frontend-main/src/models/ApplicationCase.js  
bd-scs-nodejs-frontend-main/src/models/ApplicationFile.js  
bd-scs-nodejs-frontend-main/src/models/ApRse.js  
bd-scs-nodejs-frontend-main/src/models/Attachment.js  
bd-scs-nodejs-frontend-main/src/models/BackendUpdate.js  
bd-scs-nodejs-frontend-main/src/models/GenOtp.js  
bd-scs-nodejs-frontend-main/src/models/IamSmart.js  
bd-scs-nodejs-frontend-main/src/models/LogEvents.js  
bd-scs-nodejs-frontend-main/src/models/SchoolAppInfo.js  
bd-scs-nodejs-frontend-main/src/models/SchoolAppSubmission.js  
bd-scs-nodejs-frontend-main/src/models/ScsMasterTable.js  
bd-scs-nodejs-frontend-main/src/models/Staff.js  
bd-scs-nodejs-frontend-main/src/models/Sys\_Meta\_Data.js  
bd-scs-nodejs-frontend-main/src/models/Test.js  
bd-scs-nodejs-frontend-main/src/routes/ApplicationController.js  
bd-scs-nodejs-frontend-main/src/routes/AuthController.js  
bd-scs-nodejs-frontend-main/src/routes/ESignController.js  
bd-scs-nodejs-frontend-main/src/services/IamSmartServices.js  
bd-scs-nodejs-frontend-main/src/tests/initializeDatabase.js  
bd-scs-nodejs-frontend-main/src/tests/testAdrBlk.js  
bd-scs-nodejs-frontend-main/src/tests/testApplicationCase.js  
bd-scs-nodejs-frontend-main/src/tests/testApplicationFile.js  
bd-scs-nodejs-frontend-main/src/tests/testApRse.js  
bd-scs-nodejs-frontend-main/src/tests/testGenOtp.js  
bd-scs-nodejs-frontend-main/src/tests/testLogEvents.js  
bd-scs-nodejs-frontend-main/src/tests/testSchoolAppInfo.js  
bd-scs-nodejs-frontend-main/src/tests/testSchoolAppSubmission.js  
bd-scs-nodejs-frontend-main/src/tests/testScsMasterTable.js  
bd-scs-nodejs-frontend-main/src/tests/testSMTP.js  
bd-scs-nodejs-frontend-main/src/tests/testStaff.js  
bd-scs-nodejs-frontend-main/src/tests/testSysMetaDataModel.js  
bd-scs-nodejs-frontend-main/src/tests/testTestModel.js  
bd-scs-nodejs-frontend-main/src/utils/aes256gcm.js  
bd-scs-nodejs-frontend-main/src/utils/applicationUtils.js  
bd-scs-nodejs-frontend-main/src/utils/ExternalSigner.js  
bd-scs-nodejs-frontend-main/src/utils/hkpostUtils.js  
bd-scs-nodejs-frontend-main/src/utils/iamSmartUtils.js  
bd-scs-nodejs-frontend-main/src/utils/loginUtils.js  
bd-scs-nodejs-frontend-main/src/utils/on9Dotnet.js  
bd-scs-nodejs-frontend-main/src/utils/signConfig.js  
bd-scs-nodejs-frontend-main/src/utils/Signer.js  
bd-scs-nodejs-frontend-main/src/utils/signUtils.js  
bd-scs-react-frontend-frontend-main/.eslintrc.js  
bd-scs-react-frontend-frontend-main/.prettierrc.js  
bd-scs-react-frontend-frontend-main/.stylelintrc.js  
bd-scs-react-frontend-frontend-main/commitlint.config.js  
bd-scs-react-frontend-frontend-main/lint-staged.config.js  
bd-scs-react-frontend-frontend-main/postcss.config.js  
bd-scs-react-frontend-frontend-main/tailwind.config.js

## 3. System Test Plan (from stp\_i1.md)

### 3.1 Overview (from stp\_i1.md)

This document is the System Integration Test Plan for the Combined System Development Services for Pilot Project of CDPSS of the Buildings Department. It provides a detailed description and result of the System Integration Test.

### 3.2 Purpose (from stp\_i1.md)

The purposes of this System Test Plan are:

* To define the types of tests to be carried out on the system
* To define the requirements for test data to be used
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### 3.3 Scope (from stp\_i1.md)

The tests are focused on the functional, non-functional and technical features of the new Information Framework system.

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2. System Integration Test
   1. System backup, Fall-back and Recovery Test
   2. Performance, Stress and Load Test
   * **Function Test**
   * The objective of the function test is to measure the effectiveness and efficiency of the system in compliance with the User Requirements and System Design. The Function Test is based on the Function Test Plan, which contains itinerary and procedures to cover the test cases based upon user requirements.
   * **System Backup, Fall-back and Recovery Test**
   * The backup and recovery test is to test that the system are protected from various types of failure and be able to recover to a consistent state after failure.
   * **Performance, Stress and Load Test**
   * The objective of performance test is to determine the amount of execution time spent on various parts of the program. Many programs have specific performance or efficiency objectives, such as response times and throughput rates under certain workload and configuration conditions. Performance testing should attempt to show that the system does not satisfy its performance objectives.

### 3.4 Test Plan Details (from stp\_i1.md)

This test plan is divided into two parts - function tests and system integration tests.

In the function tests, the following functional areas will be tested:

1. User Management
2. Form and Record
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The system integration test will be taken after all the components have been fully tested and integrated.

1. System backup, Fallback and Recovery Test
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#### 4.1 Test Schedule (from stp\_i1.md)

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#### 4.2 Role and Responsibilities (from stp\_i1.md)

| **Team / Role** | **Responsibilities** BD:

* System Test Plan and Result.

## 1. Introduction

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