Integration Test Plan

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1 Introduction

1.1 Purpose

This document specifies the Integration Test Plan for the HCDocs System. There are several components which need to be integrated in order for HCDocs to work successfully. Each component, after successfully passing unit testing, will be integrated into the system and tested as a whole system to ensure the separate components interact with each other as expected.

1.2 Scope

This document describes the tests involved in the integration test and the roles of the team members. Each section of testing is for a set of components which are to be tested for integration with each other. Since this document is intended only for the development team and not the end users, it is less detailed than the Acceptance Test Plan. Test procedures are also less thorough because it is assumed the development team knows the testing procedure.

1.3 Definitions, Acronyms, and Abbreviations

Top Down Integration: An approach to integration testing in which the largest component is tested first and all smaller components are subsequently added and tested.

Bottom Up Integration: An approach to integration testing in which the smallest component is tested first and then other components are subsequently added and tested.

2 Approach

This section describes the testing assumptions, approach, tools and technology used for integration testing of the HCDocs system.

2.1 Objective

The integration test plan ensures the modules of the system interact with each other as expected and maintain stability. All integration tests will be completed and approved before Acceptance Testing will begin. If any parts of the integration test fail, the components will go through unit testing again to identify issues and then retested in the integration.
2.2 Entry and Exit Criteria

Before testing, we will assume that each component has passed unit testing.

2.2.1 Entry Criteria

Integration testing can only be initiated after any of the following are met:

1. all modules for the particular iteration of integration have successfully undergone unit testing
2. consent of the Project Lead is obtained
3. consent of the Test Lead is obtained

2.2.2 Exit Criteria

Integration testing can be halted after any of the following are met:

1. No defects or inconsistencies were observed after all test cases were run.
2. At least one defect or inconsistency was observed, which differs from the expected outcome of a test case.
3 Tests

3.1 Testing Approach

The HCDocs system is built as an add-on feature to Open Office editor. Therefore, one of our primary integration steps is to successfully synchronize Open Office with HCDocs. In addition to this integration, there are also several sub components of HCDocs that need to be integrated in order to obtain a fully working and robust system. Therefore we will be utilizing the sandwich approach, which is a combination of top-down and bottom-up integration.

3.2 Top Down Integration

3.2.1 Integration of HCDocs application into Open Office

The HCDocs application will be integrated into Open Office with all other functionality as stubs.

3.2.2 Integration of HCDocs application into Open Office within hospital network

The HCDocs application will integrate the RMI and ensure the application works on the hospital network. All functional components of HCDocs will be implemented with stubs.

3.3 Bottom Up Integration

3.3.1 Integrate Add document into HCDocs

Test all functionality of the Add feature inside HCDocs.

3.3.2 Integrate Open document into HCDocs

Test all functionality of the Open feature inside HCDocs.

3.3.3 Integrate Save document into HCDocs

Test all functionality of the Save feature inside HCDocs.
3.3.4 Integrate Logout into HCDocs

Test all functionality of the Logout feature inside HCDocs.

3.3.5 Integration of Database into HCDocs application

Test database functionality inside HCDocs.

3.3.6 Integrate Manage Users into HCDocs Administrator Application

Test all functionality of the Manage Users feature inside HCDocs Administrator Application.

3.3.7 Integrate Manage Documents into HCDocs Administrator Application

Test all functionality of the Manage Documents feature inside HCDocs Administrator Application.

3.3.8 Integrate Manage Templates into HCDocs Administrator Application

Test all functionality of the Manage Templates feature inside HCDocs Administrator Application.

3.3.9 Integrate Logout into HCDocs Administrator Application

Test all functionality of the Logout feature inside HCDocs Administrator Application.

3.3.10 Integration of Database into HCDocs Administrator Application

Test database functionality inside HCDocs.

3.4 Sandwich Integration

3.4.1 Integrate fully functional HCDocs Application in Open Office on Hospital Network

Test all functionality on hospital network and ensure system works as expected.
4 Participants

This section describes the roles and responsibilities of the team members.

4.1 Roles and Responsibilities

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<thead>
<tr>
<th>Role</th>
<th>Name</th>
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<tbody>
<tr>
<td>Team Lead</td>
<td>Somil Parikh</td>
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<tr>
<td>Test Lead</td>
<td>Bernard Wolff</td>
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<td>Testers</td>
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