**Movie Rental Application Test Plan**

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1. **INTRODUCTION**

This application is a movie rental program. Needed to give some more details on the product. This is an application that I created in a prior class. We do have access to the source code to do white box testing. The application was complete, but I had to add some additional code to make the application flow better.

It will allow the clients to track customer data, movie data, and rental data. The application will accept a file that can load customer data, load movie data, and load rental data.

On the customer screen, the available functions will be to add customers, updated customer info, show all customers, search by customer ID or name.

On the rental screen the available functions will be add a movie, rent a movie, return a movie, show all movies. In addition, it will be able to show only the current movies rented, and show customer rental history.

1. **OBJECTIVES AND TASKS**
2. **Objectives**

The objective of the tests is to verify the functionality of Movie Rental works as per the client’s requirements. The following will be provided in the report:

* Test Summary Report
* Test Incident Report
* The test cases
* The test case results

1. **Tasks**

The following will be included in the project:

* Unit Test Cases/Testing
* Integration Test Cases/Testing
* Volume Test Cases/Testing
* Boundary and Equivalence Partition Cases

**3.0 SCOPE**

**General**

This will describe what will be the functionalities tested for the items listed in the Tasks section 2.2. We will be testing all functionality of the application to put together a report of the testing process and results. This will include:

* File importing
* All customer functions
* All rental functions
* Database interaction

**4.0 TESTING STRATEGY**

The testing will be conducted manually. No automation tools will be used for this testing.

1. **Unit Testing**

**Definition:**

For unit testing we will test to make sure the functionality is working. There will not be any testing for the validity of data inputted into the various fields.

**Participants:**

Tracy will be doing the unit testing.

**Methodology:**

Unit testing will be done in a development state of the application. The source code will be available to be looked at and changed if any unit test fails. The testing will be done in Visual Studio 2017 on a Windows 10 PC.

Tracy will be creating the unit test cases.

Unit testing will occur at these stages:

* Code to import data (customer, movie, and rental information)
* Code for the functionality of all customer functionality has been completed
* Code for the functionality of rental information has been completed

1. **Integration Testing**

**Definition:**

For Integration testing we will test full functionality of the application. This will include positive and negative testing.

**Participants:**

Joseph will be doing the integration testing.

**Methodology:**

Unit testing will be done in a Beta build of the complete application. No source code will be available. Testing will be completed on a Windows PC. We will be testing at a system level. All aspects/functionalities of the system will be tested. It will test both functional and non-functional test cases.

Lu will be creating the Integration cases.

Integration testing will occur after the application has been fully completed. At what level will these test be carried out? Unit? Subsystem? System? All? Any issues found in Integration testing will be reported to back to Lu Lin and Tracy Zeigler to have the issue reviewed and if needed, corrected.

**4.3 Volume Testing**

**Definition:**

This will test loading of large amounts of data to the databases to see if any errors occur.

**Participants:**

Lu will be doing the volume testing.

**Methodology:**

This will be completed at the same time of integration testing. It will be done in a development environment. Each database will have a file loaded to it through the application and we will check to see if any issues occur, how long it takes, and if there is any data loss.

**5.0** **HARDWARE REQUIREMENTS**

* A PC running Windows 7 or higher
* Minimum of 2 GB of Ram
* Intel i3 processor or better

1. **ENVIRONMENT REQUIREMENTS**
2. **Development Hardware/Software**

* PC running Windows 7 or higher
* .Net Framework 4.5.2 or greater
* Visual Studio 2017 Enterprise edition
* SQL Expression 2017 or better

1. **Workstation**

* PC running Windows 7 or higher
* .Net Framework 4.5.2 or greater
* SQL Expression 2017 or better

**7.0 TEST SCHEDULE**

October 15th, 2018 – Integration testing begins

October 27th, 2018 – Integration testing is complete

October 29th, 2018 – User Acceptance testing is started

November 3rd, 2018 – User Acceptance testing is complete

**8.0 CONTROL PROCEDURES**

**Problem Reporting**

If a problem occurs during Integration or Acceptance testing, it will be document on the Testing Issues Excel file. It will include the test case details and why it is an issue. This will be looked at by Lu and Tracy.

**9.0 SCHEDULES**

October 3rd, 2018 – Proposal Due

October 13th, 2018 – Application is completed, and all Unit Testing is complete

October 13th, 2018 – Create the Integration and User Acceptance test plans

October 15th, 2018 – Integration testing begins

October 27th, 2018 – Integration testing is complete

October 29th, 2018 – User Acceptance testing is started

November 3rd, 2018 – User Acceptance testing is complete

November 17th, 2018 – Complete the first draft of the project report.

November 30th, 2018 – Finalize the revision of the project report

December 3rd, 2018 – Submission of the project report.

**Major Deliverables**

The following will be part of the final report:

* Test Plan
* Test Cases
* Test Incident Reports
* Test Summary Reports