Project Description

Software Engineering (COMP 450)

Due: 1/30/2015

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Project Description

PPG Architectural Coatings, North America, has over 1000 retail locations in three different countries. Each of these retail locations generates thousands of receipts every day. The receipts are generated as PDF documents which are electronically signed, backed up, and moved to various servers owned by PPG. However, due to the sheer number of receipts generated, hundreds end up missing or lost due to various reasons. The goal of our project will be to develop a Windows Form Application that will enable PPG employees to efficiently locate or determine the point of failure for a given missing receipt. The application will provide users the ability to find receipts through various search criteria. If the receipts are found the application will allow the user to easily package up the desired receipts and forward them to interested parties. The program behind the application will be both easy to maintain and modular.

Use-Case Specification

The Invoice Recall System will provide easy-to-use tools for searching and compiling one or several invoices from the PPG invoice archiving system. The first two use-cases will be used by a PPG IT employee. These will be used to set up the system for others in the company. Both the invoice archives and the root directory for the invoices will be editable fields which may be modified at any time. The third use-case will be for searching the specified archive and root locations. This final use-case will be used by PPG help-desk employees or sales representatives looking for missing invoices. Such a use-case will provide the user with a set of search parameters which they may modify as they see fit. In particular, the user may narrow their invoice search by customer number, invoice number, and by a set of date ranges. Once they are found, the system will package the invoices together in one of two forms. It may be configured to output a .zip file with all the invoices or a .pdf file of all the invoices concatenated together. In addition to the invoices found, the system will report all invoices that were expected but not found.



Project Outline

There are two main components of our project. The first component is the program that will take user search criteria and determine where the desired invoice(s) exist or if they exist at all. The second component is the Graphical User Interface (GUI). The GUI will be based on a Windows Form Application. There will be action buttons and text boxes to fill in search criteria. The results of the search will be displayed in an easy to read table that highlights relevant information for the user. The rough outline for the completion of these projects is shown in the Gantt chart task outline below.

Outline of Tasks

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| --- | --- |
| Task Name | Completion Date |
| Initial Project Description | Mon 2/16/15 |
| Research | Tue 2/17/15 |
| System Specification | Mon 2/23/15 |
| Create Logic Flow Diagram | Tue 2/24/15 |
| Develop Use Case-Test Case/Failure point List | Tue 2/24/15 |
| Create Test Data/Environment | Tue 2/24/15 |
| Meet with PPG | Wed 2/25/15 |
| Increment 1 plan (Invoice Finder) | Fri 2/27/15 |
| Invoice Finder | Tue 3/17/15 |
| Meet with PPG | Wed 3/18/15 |
| Test Invoice Finder | Sat 3/21/15 |
| Deliver Invoice Finder | Wed 3/25/15 |
| Increment 2 Plan (GUI) | Fri 3/27/15 |
| Meet with PPG/Midterm Report | Wed 4/1/15 |
| Code GUI | Tue 4/7/15 |
| Test GUI | Mon 4/13/15 |
| Meet with PPG/Deliver GUI | Wed 4/15/15 |
| Increment 3 Plan (Additional Features/Deployment) | Fri 4/17/15 |
| Additional Features | Fri 4/24/15 |
| Test Additional Features | Tue 4/28/15 |
| Meet with PPG/Deploy | Wed 4/29/15 |
| Final Project Presentation | Mon 5/4/15 |