Ozark Technical Community College Shipping & Receiving Management Application Capstone Proposal

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Charter

This document herby gives authority to the Shipping and Receiving Management Project to commence the construction of a purchase order shipping and receiving management application for Ozarks Technical Community College’s Receiving and Purchasing Management office. With the approval of J’Neal McCoy, College Director of Procurement, the project team consisting of Tiffany Ford, Team Manager; Jesse Fender, Back-end Developer; and Kalin Bowden, Front-end Developer, will begin the development of a project plan to be submitted for review and approval by Danny Lane, Supervisor of Shipping and Receiving. The project plan document will include at a minimum: a statement of scope, projected budgeting of time, projected cost, and projected budget. The previously mentioned document will also include an outline of the available resources and their procurement, acceptable means of communication between team members, risk to the stakeholder and project owner, further legal considerations, benchmarks of quality, and the acceptable means of contacting the stakeholder.

The purpose of the Purchase Order Shipping and Receiving Application is to decrease the overhead of current practices in purchase order management by increase the effectiveness of record keeping and retrieval and reducing time to perform requested record keeping tasks and simplifying the training of new employees. The end of the project shall include database designs, application designs, budgeted time for development; coding and testing, project implementation and a user’s guide. The objectives of the previously mentioned project would be to allow the Receiving and Purchasing Management Team to electronically store, retrieve, update, and filter purchase orders as they are received. Success will be determined by the problem owner once a single business day’s activity has been successfully recorded, updated, and reported without incident or upon the termination of the continuation of the project by the problem owner or project manager.

The Project Manager, Tiffany Ford, is hereby authorized to interface with J’Neal McCoy, Danny Lane, and the RPM staff\* as she deems necessary and with the project team members Jessie Fender and Kalin Bowden. The project manager, in line with her responsibilities, may delegate responsibilities, negotiate for resources, take corrective action up to termination of team members or of all or part of the thus mentioned project, develop master plans for the project, monitoring the schedule and progress of the team, monitor cost, monitor scope, authorizing implementation of the project, and any other action she deems necessary for the successful completion of the project.

The Project plan will be submitted and approved with the milestone schedule bellow. Upon approval of the project plan work shall commence in no less than 5 business days. The project manager and problem owner must approve any changes to the schedule that have significant potential to impact the milestones as they are recorded in this document. A detailed Schedule will be included in the project plan. The high-level milestones are as follows:

Database Design, Database construction, Query and Report SQL Statements, GUI Mock Designs, GUI Construction, Ability to Record to database from Application, Ability to pull reports from database, launch to client, Successful day achieved.

The projected budget for this project is zero dollars and zero cents ($0.00), however, the project owner has requested the right at add funds as they become available. Before any fund may be accepted and added to the budget, the project manager must give approval. Should funds be added to the budget a detailed account of all funds must be created, maintained, recorded, and produced when asked for by either the problem owner or the team manager.

Approved by the Project Sponsor

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Danny Lane, Project Sponsor

Supervisor RPM

Overview

**Project Name** Shipping & Receiving Management Application

**Problem Owner** Danny Lane, Supervisor

**Business** OTC’s RPM

**Brief Summary**

An application that will allow the OTC Shipping and Receiving team to manage, automate, and streamline their daily duties as it pertains to shipping, tracking, and receiving packages.

**Project Slogan**

Under Promise, Over Deliver.

Rationale

Danny Lane, the supervisor of shipping and receiving at Ozarks Technical Community College, must log all incoming and outgoing packages daily. These packages can be delivered/shipped via U.S.P.S, U.P.S, FedEx, and other lesser carriers. Packages once received then must be distributed internally throughout the college. The ability to know when a package was ordered, who ordered it, when it was received, who received it, when it was delivered, and who singed for it, as well as record any problems that might have arisen (i.e. broken or damaged box) is crucial to his ability to accomplish his duties. Mr. Lane must be able to produce his records for any individual or group order at a moment’s notice.

Currently, all incoming and outgoing packages are logged by hand in a paper and file system. Reports for individual packages, daily reports, and monthly reports are hand entered into several different excel sheets which are then either printed out and filed or stored in a shared folder on OTC’s intranet. Much of the information that must be entered in the Excel sheets must be done so repeatedly adding unnecessary time wasted and delayed package delivery. Different information is needed for each carrier and often for each vendor. These tasks are tedious but necessary for record maintenance.

The client wishes to have a single application where he can track ordered product, store their information, and update that information as its status changes without having to repeatedly enter information. The client also needs to be able to keep, update, and delete a record of OTC employees and faculty who receive or order freight.

Requirements VS. Desires

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| --- | --- |
| **Requirements Thus Far**   * Store orders and their status * Status must be updatable * Orders should be searchable * List on all OTC employees * Employee list must be searchable * Store vendor information * Update and delete vendor info * Secure information * Login/Permissions per user * Add, delete, update users * Daily Log * Log must be printable | **Desires**   * Ability to make monthly reports * Ability to make weekly reports * Smart auto fill * Hit and go functionality * Ability to use scanner * Ability to send reports to supervisor |
| **Comments**  My only real concern thus far is securing information such as total cost. | |

Statement of Scope

**In Scope**

* **Database**
  + Report Logs
    - Daily Receiving List
  + Vendors
  + Carriers
  + OTC Employees
  + OTC Buildings/Rooms/Other
  + RPM Employees
* **GUI**
  + Main Menu
  + Manage RPM Employees Form/Page
    - Edit/Add/Delete
    - Manage Privileges
  + Manage OTC Employees Form/Page
    - Edit/Add/Delete
    - Special Instructions
  + Receiving Freight Form/Page
  + View OTC Employees
    - As Editable
  + View Vendors
    - As Editable
    - Special Instruction/Conditions
  + View Building/Rooms/Etc.
    - As Editable
    - Special Instructions/ Conditions
  + Report Generation Form
  + Employee Log in
  + Settings Menu
    - Database Connection Settings
* **Functionality**
  + Ability to Search and view Purchase Orders by PO, Date, Employee, Vendor, Etc.
  + Ability to track PO’s as they are received
  + Ability to keep a record of a single PO’s line items
    - In General, the ability to track parts of a PO as they come in until the PO is complete
    - Certain fields must be editable (I.e. Quantity Received)
  + Ability to create daily reports about Purchase orders that were received
  + Ability to Print out Reports
  + Ability for RPM Employees to log in
  + Ability to grant and revoke application privileges to RPM employees
  + Ability to use handheld scanner
  + Ability to print out database list
    - Vendors
    - OTC Employees
    - RPM Employees
    - Buildings/Rooms

Out of Scope

* Database
  + Purchase Orders/PDF Form
  + Purchase Orders Parsed
  + Employee Log of activities
  + NOTE: I expect this list to grow as the stakeholder sees the potential benefit of the product
* GUI
  + A page that allows the user to create highly customizable reports
  + View Purchase Order
    - As PDF
    - Parsed as (Limited)Editable
* Functionality
  + The ability to automatically create Daily, Weekly, and Monthly reports
  + The ability to send reports to a shared folder available to higher ups
  + Ability to read PDF/Images in from
  + Ability to print out PO’s

Projected Time Budget

**Schedule**

* Week 1 – Week 2
  + Design Database (Mock)
  + Design GUI (Mock)
  + Design Data Flow Mock
  + Decide Application Framework(‘s)
  + Begin Draft for Application documentation
* Week 2 – Week 3
  + Start construction of Database Tables
  + Start Creation of faux data for testing
  + Start Creation of Form Templets
  + Begin testing of query’s in Database
* Week 3 – Week 4
  + Begin adding functionality to forms
  + Begin Combining forms
* Week 4 – Week 5
  + Begin integration of client forms with database
  + Redesign data for testing (If needed)
* Week 5 – Week 6
  + Test Client/Database with faux data
  + Trouble shooting and Bug fixes
* Week 6 – Week 7
  + Trouble Shooting and Bug Fixes
* Week 7 – Week 8
  + Push to Client
  + Trouble shooting and Bug Fixes
* Week 8 – Week 9
  + Trouble shooting and Bug Fixes
* Week 9 – Week 10
  + Deliver final Version
  + Trouble Shoot and Bug Fixes

Project Monetary Budget

Projected Budget: $0.00

Note: J’Neal McCoy, College Director of Procurement, has recently expressed interest in seeing the project succeed with potential to offer resources to increase the effectiveness of the development team including, but not limited to, monetary assets and increased funding to OTC’s RPM.

Team & Leadership

**Problem Owner** Danny Lane

**Project Manager** Tiffany Ford

**Back-End Development** Jessie Fender

**Front-End Development** Kalin Bowden

Optimal End Result of Application

A single application that allows the user, Danny Lane, and those under him to securely and quickly add new orders, update orders as their status changes, and store orders that have been completed. Eliminate the need for hand searching for orders as well as a adding a smart fill feature when adding updating or adding information. Eliminate the need for hand searching employee information as well as tracking any special instructions that employee may have. The ability to create and automate reports of anytime frame as well as allowing Danny Lane the ability to control who has access to what information and who can update or add.

The end goal of this application is to greatly increase the speed of receiving packages from various vendors as well as orders from various faculty as efficiently and painlessly as possible while still maintain immaculate records.

Author Thoughts on Premise of Application

This project at first glance does not seem overly complex but there are some unknowns. A single application that uses a normalized database to track multiple types of information allowed for reporting and quick filling out of information does not seem an overly complex task (Knock on Wood). However, I feel that with a semester long timeframe and a small team we can take this and shape it into a product that meets and hopeful exceeds the needs and desires of the client.

I fell this project would best be done with either Windows Forms or WPF. Additionally, I would like to consider using Electron as an option to create a more user-friendly and aesthetically pleasing application. I feel equally confident about using a Access database since this information does not necessary need to be used on multiple computers.

I expect some bumps along the road, but nothing to terrible. I have a close relationship with the client as well as working experience in the department. I feel our client in not only willing to work with use but honestly excited about the premise if reducing his daily agony.