

CSC 333 Database Applications Project Proposal

UAFD Purchase Order System

Team Members:

Brian Barnes

Matt DeWitt

Jason Featherman

Chris Blanchard

Project Liaison:

Brian Barnes

Upper Allen Fire Department
104 Gettysburg Pike
Mechanicsburg, PA 17055

www.upperallenfire.com
Phone: 717-697-9595
Name of Point of Contact: Don Roseth

1. Overview of Project and Sponsor Organization

This project addresses the purchase order process at the Upper Allen Fire Department. Upon completion, the system will provide an authorized purchasing agent access (under proper authorization) to a computerized purchase order program/database. The system will streamline the business processes, reduce human error, and provide an intuitive approach to all related processes in the context of the specific intricacies inherent in the UAFD business model.

The Upper Allen Fire Department is a volunteer fire department subsidized by the state and local governments, and by donation. The proposed system will be one of many systems in place that support the operations of the fire department on a daily basis. An efficient and error free purchase order system not only ensures more efficient use of the volunteer's time but also ensures that the taxpayer dollars used for the firehouse are properly accounted for in the purchasing processes. The system will be mission critical in that any loss of data will hold internal and external consequences. Being that purchasing with taxpayer money is a sensitive issue, security concerns must be taken into consideration so that no unauthorized individuals are able to obtain purchase order numbers from the system.

The key point of contact within the Upper Allen Fire Department is Treasurer Don Roseth, who currently oversees all purchasing, receiving, payment, as well as the archive process. Brian Barnes is our team liaison as he already volunteers his time and effort for the fire department, especially in terms of being our technical contact. Brian is familiar with the current systems in place (as he is in charge of running them) which we think greatly reduces the risk involved.

2. Problem Statement

The current process of purchasing is subject to a number of elements that potentially compromise its integrity and success. There are three separate purchase order books used to issue purchase orders; one for training, one for administration, and one for operations. Should the issuer write the PO in the wrong book, this could create lookup problems, as there is no way to search except manually for the PO. When the goods are received, the manual lookup process means a significant amount of searching to find the paper purchase order (which assumes the PO was completed correctly and placed in the proper place). Finally, when the UAFD is audited at the end of each year, the auditor must fumble through hundreds of purchase orders to make sense of the yearly spending.

3. Project Objectives

Upon completion, the computerized PO system will:

- Reduce the number of improperly completed purchase orders to nearly zero by using forms of validation.
- Be intuitive and user friendly in design.
- Reduce the amount of time spent on PO issuance and receiving functions.
- Provide analytical reporting functionality
- Be secure and stable

4. Project Scope and Constraints

The goal of the group for the end of the semester is a fully functional implemented purchase order system that will be tailored to Upper Allen Fire Department's needs. This purchase order system will be created primarily using Microsoft Access. We have decided that working with Access is a smart decision given our backgrounds and the time frame to complete the project, not to mention that this technology is in place as the UAFD already. The group does not see any technical constraints at this point in the project and its development. The time constraint on the project, one semester, could be a problem if a reasonable scope is not set for the delivered PO system.

5. Project Strategy

To develop the database solution the group will use a milestone approach as well as incorporating agile methods. This will allow for the group to make a database and allow our contact to view it during the process of development via prototypes. By doing this the group will construct exactly what our contact desires while reducing risk in the process. When constructing the database the tasks will be divided up among the group. These tasks will be divided depending on the strengths and weaknesses of the group members. An online storage area where all files will be accessible to the group has been set up, acting as a repository for all group files and communication. Each member can download, view, or edit the work of others and upload all finished documents. The group does not foresee our project requiring any deviation from the syllabus.

6. Budget

At this point there are no necessary purchases needed for this project. The software program that will be used, Access, is already owned by UAFD.

7. Resources and Roles

- Brian Barnes – Liaison, Technical Contact and Webmaster
- Chris Blanchard - Team Leader
- Matt DeWitt - Academic Liaison
- Jason Featherman - Scheduling Representative and File Manager.

At our first meeting as a project team we were able to define what roles we each would have, and what requirements each of us would be expected to carry out. Brian was a perfect fit as our liaison and technical contact to the Fire Department because of his volunteer work there. Chris Blanchard has shown great qualities as a leader, and has a lot of talent when it comes to coordinating websites. The group thought Matt DeWitt would be ideal for the academic liaison job, and will be the reference point between the group and Professor Nejme. Jason Featherman has had a lot of experience with scheduling projects, and keeping files in order, so the group decided that would be his area of expertise.

8. Logistics

- We, as a group, are planning to meet with the main user of the system, Don Roseth, every other Monday to make sure we are building a system that provides Upper Allen with all of the needed requirements. Brian Barnes will also be in constant contact with the Fire Department, and will be able to provide constant feedback to the rest of our project group about specifications that the system will need.

- Our group will be meeting every Wednesday at 7:00 pm at the Fire Department to discuss issues within the project and be able to get weekly feedback from Upper Allen. These meetings will serve two purposes, one purpose will be to come together as a group and converse about concerns about the project, and the second purpose the meetings will serve will be to originate new ideas for our project, which will benefit Upper Allen.

9. Project Justification

This project first originated when Brian Barnes, our team liaison, came to the group and discussed with us the possibility of implementing an automated system that would track all of the purchasing, receiving, and payment processes of the Upper Allen Fire Department. The current business process that Upper Allen operates under is a totally paper system, where each transaction is recorded in one of three P.O. books. The proposed computerized purchase order database system will be used instead of the existing paper system, and provide the Fire Department with a more efficient and effective system structure. The system we plan to implement will keep track of the vendors and purchases made by Upper Allen and integrate the various aspects into one seamless database and program interface. The system will have to operate in the constraints that have been mandated by Upper Allen Fire Department, and the technology that is currently in place.

Approved by Don Roseth: _____

Approved by Project Team Members:

- Matt DeWitt _____
- Chris Blanchard _____
- Jason Featherman _____
- Brian Barnes _____

Approved by Professor Nejme: _____