Electronics Supply Company Warehouse Management System
Project Bid

Prepared for:
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CSIS 3275 002 – Software Engineering

Development Team
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INTRODUCTION

The subject of our project is a Warehouse Management System for a midstream supplier specializing in individual computer hardware components, such as CPUs, GPUs, HDDs, etc. We also stock complete pre-built computer systems. Our 'imaginary company' would purchase the products in bulk from the manufacturers or another supplier, then re-sell them to clients, typically end-of-the-chain retail stores such as Best Buy, Costco, etc. For the purposes of this project, we have decided our company services only Vancouver Island and the Lower Mainland area.

The topic of the project was first proposed by Sam Zhou, which was accepted by the rest of the development team due to the large amount of personal interest amongst the team; many of us having built our own computers.

PROJECT SUMMARY

The main components of our proposed project can be broken up into three main modules:

1. A **database** containing all the relevant information to our business, such as our employees, clients, products, and so forth.
    a. This will be a mySQL database that utilizes phpMyAdmin for managing purposes.
    b. The database will be hosted via AWSEC2 and a server provided by group member.
2. A **website** linked to our database that showcases mainly the products that we carry, as well as additional information for clients. Because we sell exclusively to other businesses, there is no shopping cart feature on this website. Also worth mentioning is that the website has no ability to manipulate data on the database.
    a. The website will use Bootstrap to handle the CSS, and will have a mobile-friendly aesthetic.
    b. The website, just like the database, will be hosted on a server provided by a group member.
    c. Other technologies that the website is projected to use include:
        i. JavaScript
        ii. AJAX
        iii. PHP
3. An **application** that has write-access to the database, whose (the application) use is restricted to employees of the company. Employees belonging to different departments will see a differing UI depending on the department.
    a. The language the application will be written in will be C#.
    b. There will be multiple Windows Forms GUIs for the different departments. So far, there are at least 2 confirmed to be implemented.
    c. Because the application handles data manipulation for the database, data validation will occur on the application-side.
    d. Projected system requirements for the application will be:
        i. Windows 7 and above
        ii. 1 gigahertz (GHz) or faster 32-bit (x86) or 64-bit (x64) processor
        iii. 1 gigabyte (GB) RAM (32-bit) or 2 GB RAM (64-bit)
        iv. 16 GB available hard disk space (32-bit) or 20 GB (64-bit)
        v. DirectX 9 graphics device with WDDM 1.0 or higher driver
        vi. Internet Access

To create these modules, the development team is projected to utilize the following development tools and hardware components:

- Microsoft Visual Studio 2015
- Microsoft Visual Studio 2012 Express
- Adobe Dreamweaver
- Codelobster
- Git via Github
- SourceTree
- AWS EC2
    - Linux – Ubuntu 15.04
    - Apache
    - Cloud software specifications:
        - 1 gigahertz (GHz) or faster 32-bit (x86) or 64-bit (x64) processor
        - 1 gigabyte (GB) RAM (32-bit) or 2 GB RAM (64-bit)
        - 16 GB available hard disk space (32-bit) or 20 GB (64-bit)
        - DirectX 9 graphics device with WDDM 1.0 or higher driver
- FileZilla

Obviously, the previously listed three main modules would comprise the main tasks, or milestones of this project. Logically, the database would have to be constructed first, but afterwards the website and application modules can be completed independent of each other. The can then be further broken down, starting with the database module.

A - **Database Module** (Est. Completion: Week 6)
1. Schema
2. DB Construction
3. Data Entry

B1 - **Website Module** (Est. Completion: Week 9)
1. Design
2. Hosting
3. Coding
    a. Database Implementation
    b. Front End Work
    c. Back End Work
4. Testing

B2 - **Application Module** (Est. Completion: Week 10)
1. Component Planning
2. UI Design
3. Coding
    a. Database Implementation
4. Debug
5. Testing

C - **Whole System Testing** (Est. Completion: Week 11)

Finally, the planned roles of the development team are as follows:

Project Manager: Matthew Lai
Website Design Chief: Manjot Sangha
Primary Programmer: Sam Zhou
Networking Specialist and System Administrator: Curtis Windsor
Certified Professional Acting Chief Executive Director of the Department of Pizza Acquisition: Manveer Sidhu

While these are the general roles that the development team have assigned each other, it is entirely probable that individual team members will assist each other in different modules and aspects as the project progresses.