Title

**Community Lifeline Services**

# Members

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# Introduction

**Background: Community Lifeline Ministries**

Community Lifeline ministries (CLM) is a non-profit organization based in Joliet, Illinois. The organization was formed in September 2014. Since then they have been trying to improve the local community’s quality of life. They do so by hosting several outreach programs than aim to benefit children’s education, community health nourishment, and help stop the spread of violence. CLM has three main programs to date: GEMS after school program, Blessing table, and Sons of Thunder.

**Background: GEMS After School Program**

The particular project that our group has been tasked to work with is the GEMS after school program. GEMS stands for Growth Education and Motivation of Students. GEMS’s purpose is to provide a learning environment for under-represented youth within the community.

**Purpose**

The group has been tasked to help improve the productivity of the GEMS after school program by developing and implementing a database and reporting system. CLM has been working with a manual database system that involves had written forms and Microsoft Excel files. With about 50-60 children enrolled in GEMS, the administrators and other personnel have been struggling to maintain an efficient working environment in terms of querying for accurate information on their parent and student databases. The new database and reporting system should be able to help CLM’s GEMS program administration become more efficient and be able to accommodate more students.

# Statement of Work

**Project Description**

The software that will be developed for CLM’s GEMS is a database and reporting system (web application). The system will provide an efficient means to store, edit, and look up information about the children enrolled in the program. The database and reporting system should be able to do the following.

1. Be able to list immediate information regarding the query made by the user from 2 main tables – Student Table and Parent table
   1. Examples of information that can be queried from the Student table include Student name, Grade, Age, Gender, Address, Allergies, ..., etc.
   2. Examples of information that can be queried from the Parent table include Parent Name, Address, Employment information, income, Permissions granted to children (field trips), …, etc.
2. Allow the user to edit and add new instances to the appropriate database. Moreover, the user should be able to specifically perform the following functions:
   1. The user should be able to add new students in the database.
   2. The user should be able to edit existing instances.
   3. The user should be able to delete instances in the database.
3. Create restrictions for certain users
   1. Permissions have to be granted for certain users to protect the database from being edited by restricted users.
   2. This is will also filter out information that is personal/private that cannot be seen without receiving a permission.

**Programming Languages**

1. HTML
   1. This programming language will be used for describing the structure of the webpage (headings, text, hypertext links, etc.).
   2. We will be using Notepad++ and TextWrangler to write the code in and copying the code into the webpage.
2. CSS
   1. This programming language will be used for describing the presentation of the webpage (colors, layouts, and fonts).
   2. We will be using Notepad++ and TextWrangler to write the code in and copying the code into the webpage.
3. PHP
   1. This programming language will be used to link the database to the web based program.
   2. We will be using Notepad++ and TextWrangler to write the code in and copying the code into the webpage.
4. SQL
   1. This programming language will be used to create the database.
   2. The development environment being used will by MySQL.

**Prerequisites**

There are certain prerequisites for this project before the team may be able to start the development process. The prerequisites are listed below:

1. The specifications for the instance attributes must be determined before being able to develop the database for the program.
   1. These specifications include what information CLM will be collecting from the students and parents.
   2. The information collected will serve as the attributes of the instances.
   3. Restricted information will be based on the attributes
2. The group members have varying levels of experience and expertise in different areas. Regarding the task at hand group members shall:
   1. Divide the tasks equally among the group where each group member shall function efficiently based on expertise.
   2. Be able to communicate certain ideas or express doubt about ideas within the group.
3. The amount of funding available should be determined.
   1. This should be done so that the group can determine and filter the viable options there are with regards to finding a host and any other web services needed to develop the software.

**Uncertainties/Unknowns**

Uncertainties that are involved in the development of the software include the following:

1. Encryption
   1. Encrypting usernames and passwords will prove challenging.
   2. Uploading files via scanner and encrypting those files to keep birth certificates and other private information safe.

**Software Outcomes**

The general outcome of the project is to produce software needed by CLM and to improve our individual and group work skills. More specifically, however, the outcomes that we are expecting are as follows:

1. Be able to provide service to CLM by developing the database and reporting system software
   1. The group should be able to develop the database needed for the software.
   2. The group should be able to find, and work on, a web host for the software system.
   3. The group should be able to produce a functional database linked by PHP to the web application.
   4. The web application should be able to let permitted users to add and edit information to and from the database.
   5. The web application should have a login system that will only grant access to permitted users.

# Outcomes

**Project Outcome**

There are several outcomes that are expected during the completion of the project. Most of the outcomes are those that include the development new technical and collaborative skills. More specifically the outcomes expected are as follows:

1. After the completion of the project each member of the group shall have a better understanding software development techniques.
   1. Each member of the group should have better understanding of plan and document techniques.
   2. Each member should be able to learn how to apply plan and document techniques into future projects.
2. The project will require extensive programing experience; hence each member should be able to expand their skills in programming languages;
   1. Each member should have a better understanding of how to use HTML and CSS in building webpages.
   2. Each member should be able to learn how to incorporate PHP with HTML code to link databases
   3. Not all group members have previous experience with SQL therefore after the project group member will gain more experience with SQL.
3. After the project, each group member will strengthen their collaborative skills and be able to apply experience gained from this project into future projects.