**Chapter 3**

**TECHNICAL BACKGROUND**

This Database management system will be developed using the following languages and tools for rapid development:

**HTML (HyperText Markup Language),** is  a standardized system for tagging text files to achieve font, color, graphic, and hyperlink effects on World Wide Web pages. HTML code ensures the proper formatting of text and images so that the Information System for SOS network will be presented properly.

**MySQL,** is a database management system structured on handling large amounts of data which can help the Information System in the processing of the SOS network data.

**PHP Language**, is a widely-used open source general-purpose scripting language that is especially suited for web development and can be embedded into HTML. Since this language is server-side, it is fitting to cater and send requests as a medium between the database and the application.

**Python** is a general purpose programming language created in the late 1980s, and named after Monty **Python**. It will be used for text messaging API and automation of processes in the system.

**Sublime Text 3**, is a fast code editor. Not only does it have incredible built in features(multi-edit and vim mode), but it has support for plugins, snippets, and many other things. We’ll be using this piece of software because it is fast and stable.

**LAMP,** is an open source Web development platform that uses Linux as the operating system, Apache as the Web **server**, MySQL as the relational database management system and PHP as the object-oriented scripting language. (Sometimes Perl or Python is used instead of PHP.)

**API/REST,** A **RESTful API** is an application program interface (**API**) that uses HTTP requests to GET, PUT, POST and DELETE data. Representational state transfer (**REST**), which is used by browsers, can be thought of as the language of the Internet. And this would be one of our partners in building the text messaging system.

**Laravel,** is a free, open-source PHP web framework, created by Taylor Otwell and intended for the development of web applications following the model-view-controller (MVC) architectural pattern. Laravel attempts to take the pain out of development by easing common tasks used in the majority of web projects, such as authentication, routing, sessions, and caching. Laravel aims to make the development process a pleasing one for the developer without sacrificing application functionality. Also since this framework will help us create the Information System with the emphasis of clean code, it therefore makes monitoring and maintenance easier and faster.

**Raspberry Pi** is a credit card-sized computer that plugs into your TV and a keyboard. It is a capable little computer which can be used in electronics projects, and for many of the things that your desktop PC does, like spreadsheets, word processing, browsing the internet, and playing games. It will be used as a proficient web server for the system.