**CHAPTER III**

**TECHNICAL SPECIFICATIONS**

This section discusses and presents the software proponents decided to use in developing the proposed system as well as the different diagrams pertaining to the software project being developed.

**Software**

The web application was developed using the following development environment.

Table 3.1: Software Development Requirements

|  |  |  |
| --- | --- | --- |
| Software | Specification | Descriptions |
| Operating System | Windows 7, 8.1 and 10 | A system software used to control and manage the [hardware](https://www.lifewire.com/computer-hardware-2625895) and other software on a computer. |
| Programming Language | Hypertext Preprocessor 7.2 (PHP) | A fast and feature-rich open source scripting language used to develop Web Applications or Internet / Intranet Applications. |
| Client Side Script | Asynchronous Javascript and XML (AJAX) | A set of development techniques used for developing web applications which update web content asynchronously. |
| Framework | CodeIgniter MVC 3.1.9 | An application development framework used in developing a website. |
| Database Software | MySQL | A powerful open source database server built based on a relational database management system (RDBMS) and is capable of handling a large concurrent database connection. |
| Server Software | Cross platform, Apache Server, MariaDB, PHP, and Perl (XAMPP) 7.2.10 | A cross-platform web server used as local development environment |
| Web Browser | Chrome v.69 | A [software](https://www.computerhope.com/jargon/s/software.htm) program locate, retrieve, and display content on the World Wide Web |
| Application Software | Sublime Text 3 | A proprietary, cross-platform text editor used for coding, markup and prose. |
| Graphics Editor | Adobe Photoshop CS6 | A software extensively used for raster image editing, graphic design and digital art. |

The proponents used Windows as the operating system to develop the proposed system as it is more convenient to use compared to other operating system. For the programming language, the proponents used PHP for it results in faster site loading speeds and it is flexible for database connectivity. AJAX is used as Client Side Script for it allows web pages to be updated asynchronously without reloading the whole page. The CodeIgniter framework is used by the proponents because it is based on Model-View-Controller; it helps to divide the entire application into three linked sections which enables the developers perform customization and enhancement without any hindrance. In database software, the proponents decided to utilize MySQL because of its ubiquity and scalability characteristics.

Table 3.1 shows the software requirement specifications in developing the web application. The proponents used Bootstrap with AJAX (Aynchronous Javascript and XML) for frontend development and PHP for backend development. The database used is MySQL (My Structured Query Language) in order to handle big amount of data. The proponents developed the system using operating system Windows 7, 8.1 and 10 as it perfectly runs on MySQL and the web browser is Chrome.

Table 3.2: Software Implementation Requirements

|  |  |  |
| --- | --- | --- |
| Software | Specification | Descriptions |
| Operating System | Windows 7 up to Windows 10 | The Windows operating system is designed to be compatible with the largest combination of PC hardware. |
| Web Browser | Chrome | Google Chrome is a free web browser created by Google that uses the WebKit layout engine and is known for its very simplistic and minimalistic design which is touted as the fastest browser. |

Table 3.2 shows the software applications that will be used by the user when the system is implemented. Windows 7 up to Windows 10 can be used as the system functions properly with Windows OS. For the web browser, Google Chrome is recommended for easy and fast access.

**Technologies**

The system is a web application where it runs in web browsers and perform task over the internet. It is accessible and easier to navigate and maintain which results to usefulness and efficiency for the user. The system will provide job matching feature which matches the applicant’s skills to the specific vacant job qualifications. It will speed up the process as well as eases the workload of the desk officer. Also, the system will include executive dashboards and interactive reports. It is valuable for the decision-making of the management and to monitor the progress of the current system.