**Implementation on   
Hardware Sales and Purchase System**

**LIRAJ MAHARJAN**

**00162808**

**Computing Project**

**Level 5 Diploma in Computing**

**Softwarica College of IT and E-Commerce**

**Kathmandu, Nepal**

**14 June 2017**

Table of Contents

[Implementation 3](#_Toc485334412)

[Programming Language 3](#_Toc485334413)

[Hyper-text Preprocessor (PHP) 3](#_Toc485334414)

[Hyper-Text Markup Language (HTML 5) 3](#_Toc485334415)

[Cascading Style Sheet (CSS) 3](#_Toc485334416)

[Java Script 4](#_Toc485334417)

[Bootstraps 4](#_Toc485334418)

[Code Igniter Framework 4](#_Toc485334419)

[MySQL 4](#_Toc485334420)

[Development Environment 4](#_Toc485334421)

[Integrated Development Environment (IDE) 4](#_Toc485334422)

[Development Platform 4](#_Toc485334423)

[Development Strategy 5](#_Toc485334424)

[System Migration 5](#_Toc485334425)

[Data Migration 5](#_Toc485334426)

[User Training 5](#_Toc485334427)

[Conclusion 6](#_Toc485334428)

# Implementation

The way of carrying out the developed system into a working condition is known as implementation of the system. I have used design to begin the implementation and coding phase. If the system structure is designed properly and system requirements are gathered accurately then the implementation process can be easily done. During implementation, actual system is created. Implementation can be conversion of old system to new system or entirely new system to a particular organization. There are different types of implementation process such as parallel implementation, direct implementation, pilot implementation and phased implementation. Among them suitable implementation approach is carried out according to environment of the organization.

## Programming Language

I have used Hyper-Text Markup Language (HTML 5), Hyper-text Preprocessor (PHP), Cascading Style Sheets (CSS), JavaScript and Bootstraps programming languages using Code Igniter framework and MySQL database for developing this Hardware Sales and Purchases System (HSPS). Following languages, framework and database is being slightly define below.

### Hyper-text Preprocessor (PHP)

PHP is a powerful tool for developing dynamic and interactive Web pages. It is an open source scripting language as well as widely-used which is executed on the server. It main propose is to collect the data and manipulate them in database server. It can send and received cookies, encrypt data and also control user-access. It is platform independent as well as compatible with most of popular servers like Apache, IIS etc. It is free to download and easy to learn.

### Hyper-Text Markup Language (HTML 5)

HTML 5 is the language that web pages are written in. HTML 5 is the backend language that makes us able to see stuffs online. Before HTML 5 was introduced the webpage needs to depend upon third party software such as Adobe flash player, Windows media player to play audio and video files, graphics etc. HTML 5 is now capable of such stuff so the web page won’t have to depend upon other parties. It supports video, audio, vector graphics and animation, drag and drop, editable web page content. Storage within the browser and many more. The overall hope is that someday it will create standard consistence web experiences among all the browser and devices.

### Cascading Style Sheet (CSS)

It describes style or design of the HTML tags or elements which are to be displayed on screens. One CSS file can control or style multiple web pages all at a once. It can be applied in three different ways external, embedded and inline style sheet. External style is applied by defining the link with its particular path in HTML file. It is created in different file located within the same folder where HTML is being saved. Embedded style is created within the HTML file by opening <style> tag whereas Inline style is also created within the HTML file but for particular tag or element only.

### Java Script

Java script describes the behavior of web pages. Java script is a programing language that enhance the user experiences. It is an action that are performed in the web pages and to provide some certain message, calculation and information that is being currently carried out in the web pages It is not just used to programing a browser but also server, game, database and also used in robotics.

### Bootstraps

Bootstraps is an open source framework for HTML, CSS and JavaScript that makes a web browser more responsive and active as well as makes them suitable for mobile devices also. It is a predefined CSS file that can be easily downloaded and apply into HTML pages for attractive and responsive web page. It saves lots of time which could have been wasted in making CSS files. It can be used with any server-side technology and any platform with any web application.

### Code Igniter Framework

It is an open source PHP web application framework that provides logical structure and reusable interface. It has better performance because of being lightweight. By changing the certain line of codes we can use code igniter and make our own object oriented web pages. The components in it can be reused on multiple projects and its maintainability. It uses MVC pattern for organizing code and logic. And the codes and logic of it are being uploaded to Git to keep better track between the codes.

### MySQL

It is most widely used open source database management system around the world. It is owned by Oracle Co-operation. It is a Relational DBMS in which database structure are organized into physical files for better performance. The database server is reliable, fast, scalable and easy to use. It works as a client/server or embedded systems. It can handle and work with large numbers of data along with various programing language.

## Development Environment

### Integrated Development Environment (IDE)

I have used Notepad++ v7.4.1 32-bit as an IDE for coding the architecture of Hardware Sales and Purchases System. It supports multi tabbed in single window which allows me to open multiply files at once that makes easier to work and enhance in performance. It main features are multi-view, zoom in zoom out, multi-language environment support, auto-completion, tab interface and many more. It is independent text editor capable with different OS such as Microsoft windows, Classic Mac OS, LINUX and UNIX.

### Development Platform

The HSPS was fully developed in Microsoft Windows platform and the OS used was Windows 10 Pro 64-bit (10.0, Build 15063).

## Development Strategy

This is the process of figuring out the needs and objectives of system and making the changes to meet them.

### System Migration

It refers to moving a set of business process related to IT to newer hardware infrastructure and software implement from existing system to enhance the performance and being up to date with current technologies to gain more value from business. Generally, it is done when the current system does not perform as expected or becomes deprecated and no any support is available for it. With rapid growing of cloud computing, many businesses are migrating their system into cloud with automated tools which migrates data and software in short period of time.

### Data Migration

It refers to transferring data between two data storage or computer systems or from one format to another. It occurs when a business process or organization decides to use a new computing system or database management system which is being currently used is no longer supportive. While data migration is carried out, automated software or scripts are used to map system data for better migration. It also occurs when some maintenance is going on with server and server or storage upgrades or replacements and data center relocation.

## User Training

The system does not provide better output until and unless the user of the system knows how to operate the system. Implementation only does not help for better result; deployment also must be done properly. Hardware Sales and Purchases System is an e-commerce web site through which buying and selling traction are carried out. The customer and owner of the shop must be able to be in contact to perform any transaction. The customer can view the products available and other them online. The staff and owner of the shop must be able to generate bill and add into database respectively. So, the users of this site must know the capabilities of this web site and they must know how to get best of it.

The following web site is user friendly with proper words and navigation which makes user of this website understand easily and help to known what action will be done by clicking through any link in it. It assists customer as well as staff/owner how to place order, view order and prepare bill for it and adding items in it. The website is responsive and can has better performance and can be run on any platform.

# Conclusion

Finally, the implementation phase of Hardware Sales and Purchases System (HSPS was successfully carried out. The analysis and design done in the previous phase helps me to encode the system architecture properly and smoothly. Programing language, Frameworks and Database with proper IDE helps me to implement the system efficiently. Interaction between the owner and staff helps me more to known the coding structure and how it must work. However, some of the difficulties were identified while developing but later on it was tackle down.