



DEVELOPMENT OF SIMPLE CONTENT MANAGEMENT

An Internship Report

Submitted to

Office of the Dean,
Faculty of Management
Tribhuvan University

By

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In Partial Fulfillment of the Requirements for the degree of

Bachelor of Information Management

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RECOMMENDATION

I hereby recommend that the internship report prepared under my supervision by **Ms. Kalpana Rai** entitled “**Development of Simple Content Management**” accepted as fulfilling in partial requirements for the degree of Bachelor of Information Management. In my best knowledge this is an original work and is forwarded for the further evaluation.

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(Supervisor)

Insert Intern Completion Letter Provided By your Intern
Organization Here

PREFACE

This report has been prepared to fulfill the requirement of the Bachelor of Information Management (BIM) program of Tribhuvan University and is the reflection of the work that was performed during internship. The primary objective of this report is for evaluation even though it might be used as reference to prepare intern report in future.

The report is organized in five chapters. First chapter introduces the intern background and the internship selection process with brief introduction to the activities performed during internship. Second and third chapter introduces industry and organization respectively with their challenges and opportunities. The fourth chapter is the core chapter of this report which explains the activities performed during the intern period in Eagle Vision IT. It contains the roles of intern and problem faced and how those problems were solved during internship period. The final chapter is the conclusion chapter and it is written to list the lessons that were learned during internship period.

ACKNOWLEDGEMENT

The satisfaction that accompanies the successful completion of any task would be incomplete without the mention of people whose continual support made it possible, whose guidance and encouragement crown all efforts with success. It gives me immense pleasure to express my deepest sense of gratitude and sincere thanks to my respected lecturer and report supervisor Mr. Indra PC, for his valuable guidance, encouragement and help for completing this work. His useful suggestions for this whole work and co-operative behavior are sincerely acknowledged.

I owe my deep sense of gratitude to Er. Prasanna Basnyat and Er. Biplab Subedi for providing me an opportunity to carry out the Internship work at Eagle Vision IT Pvt Ltd. I would also like to thank my Project Supervisor Mr. Abiral Neupne for guiding me throughout the internship period.

Kalpana Rai

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LIST OF ABBREVIATIONS

AJAX	Asynchronous JavaScript and XML
BIM	Bachelor of Information Management
CMAT	Central Management Admission Test
CMS	Content Management System
HM	Hotel Management
IDC	Interactive Data Corporation
IOS	Iphone Operating System
IT	Information Technology
KCMIT	Kantipur College of Management and Information Technology
MIS	Management Information System
NTA	Nepal Telecommunications Authority
OTS	Off The Self
PHP	Hypertext Preprocessor
TU	Tribhuvan University
UI	User Interface
UK	United Kingdom
WYSIWYG	What You See Is What You Get

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CHAPTER I

INTRODUCTION

1.1 Background

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1.2 Objectives

Internship is designed to expand academic learning in particular area of study. The objective of my internship period are listed below:

- i. To apply knowledge, skills and experiences learned in classroom in real working environment.
- ii. To develop skills, self-understanding and self-confidence.
- iii. To identify that the programming job is my right choice or not.
- iv. To identify my strengths and weaknesses.
- v. To be more organized.

1.3 Methodology

1.3.1 Organization Selection

BIM program is designed in such a way that final semester students need to do internship for their graduation. For my graduation requirement I was searching a company that can be a place where I can expand my programming skills and work in a dynamic environment, meanwhile, I came to know about the company named Eagle Vision IT Pvt. Ltd through my supervisor Indra PC and he suggest me to apply for the internship so that I can sharp my programming skills.

I apply through email and after a week of my mail, got the response from the company with the interview date. The team of Eagle Vision took an interview and approved to join as intern trainee under the supervision of project head Abiral Neupane.

1.3.2 Placement

Eagle Vision IT Pvt. Ltd is located in Kumaripati, Lalitpur which is shown in figure 1.1 below. I was placed as intern trainee for front end development under the supervision of Abiral Neupane and now I'm upgraded to junior programmer and became an employee.

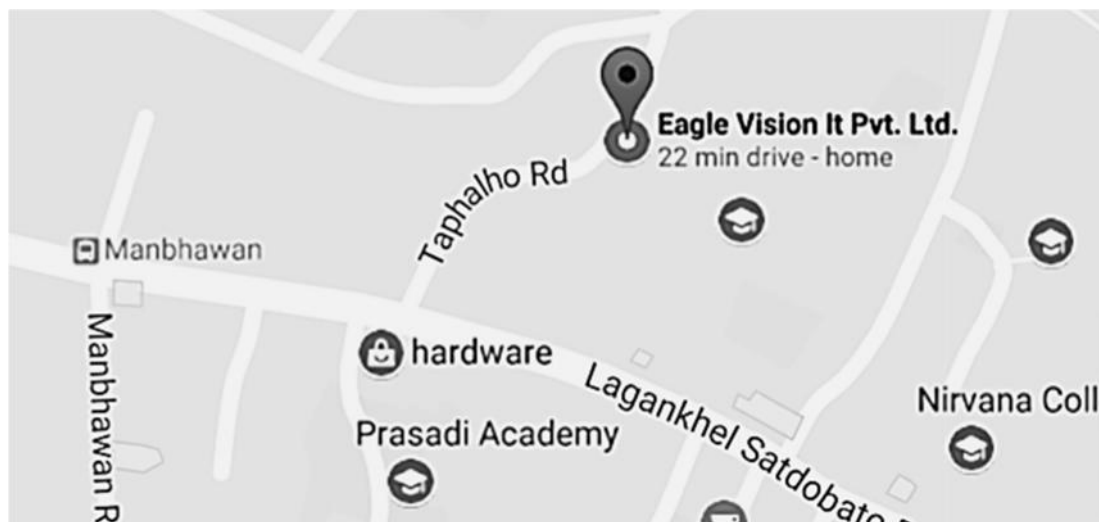


Figure 1.1: Location Map of Eagle Vision IT Pvt. Ltd.

1.3.3 Duration

The duration of internship specified by university was two months but in Eagle Vision IT the internship period was last for approximately 3 months started on 4th June 2017 to 11th September 2017.

1.3.4 Activities Done

I was assigned to create a simple content management system (CMS) and the whole system was divided in different tasks in multiple increments. The major task that were performed during internship period are listed below:

- i. Create an Admin Panel
- ii. Create User Panel
- iii. Refine the Increment

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CHAPTER II

INTRODUCTION OF THE IT INDUSTRY

2.1 The Context

Information Technology (IT) is defined as the deployment of computing via hardware, software, infrastructure and services to create, store, exchange and leverage information in its various forms to achieve different objectives. Also it can be defined as any applications that were used to enhance the efficiency and effectiveness in the performance and to solve the problem in the industry through design, development and use of technologically base system.

Information technology can be said to have begun in 1943, with the building of the Colossus computing machine in the United Kingdom (UK) in order to break the German Enigma code. By the late 1950s computers had been introduced into the major British banks, and were being used within accounts departments a little later (Mumford and Banks, 1967). At this point, the technology was limited to routine activities, involving the computation of data rather than the communication of information. However, with the development of more powerful interactive (i.e. 'real time' computer systems), and of smaller computers (minis and micros) coupled with off the shelf (OTS) programs (generally known as 'software packages'), IT has spread throughout industry, and has now extended into people's homes and leisure activity.

The main development in information technology in recent years has been the digital integration of information and telecommunications technologies. The divide between information and communication technologies has now been virtually eroded; they are now common technologies of communication. The major services that were provided in IT industry are Cybersecurity, Web Development, Software Development, IT Support, Networking, Data Analysis, Mining, Content Distribution, Digital Marketing, Search Engine and Hosting.

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2.2 Present Situation

One in two Nepalese use the internet, the Management Information System (MIS) report published by the Nepal Telecommunications Authority (NTA) shows. According to the latest numbers, there are 14.18 million internet subscribers in the country, or nearly 56 percent of the national population of 26.49 million. The report shows that internet penetration has increased by a whopping 18.22 percent over the year ending mid-February. Almost all the growth in web connectivity has come from mobiles as more and more people are using social media platforms like Facebook and Twitter (Post Report, 2017).

According to Interactive Data Corporation (IDC), IT generates approximately 3.8 trillion dollars in 2016 (CompTIA Research Report, 2017). The distribution of revenue collection is shown in figure 2.1 below. It also justifies that business through IT is large in volume.

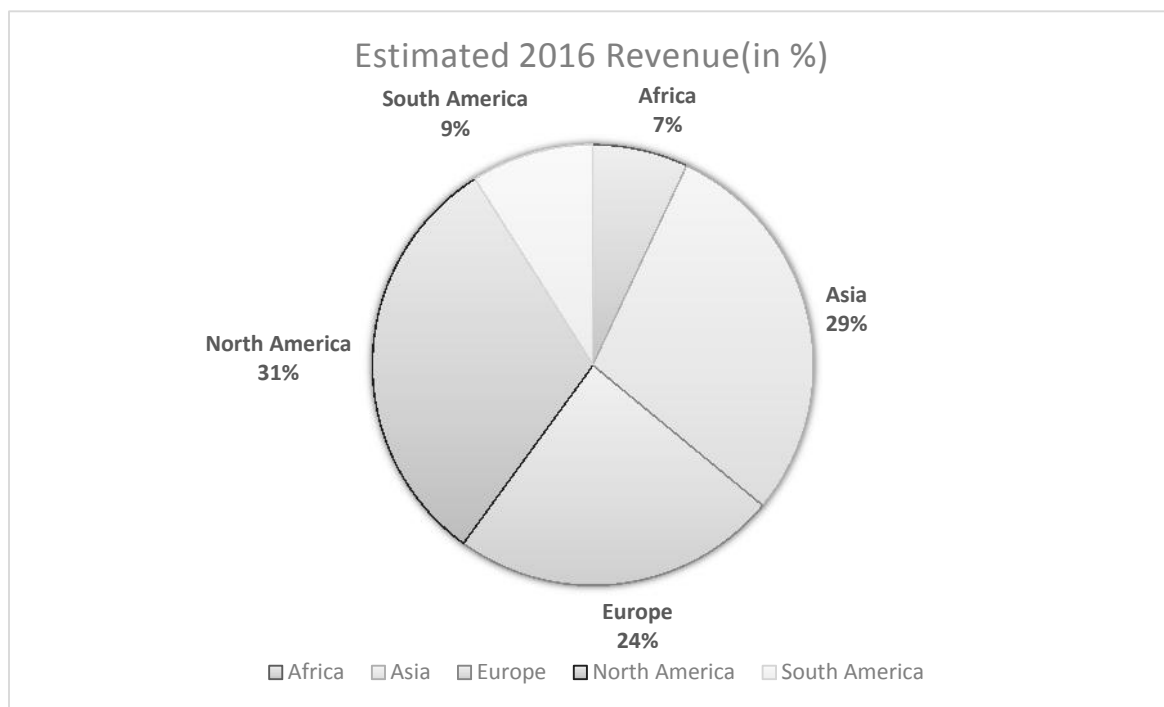


Figure 2.1: Estimated Revenue in 2016 from IT Industry (3.8 Trillion)

(Source: IDC)

Same applies in Nepal too. Increase in internet users' result in different IT firms to emerge and their unique services. The popular services provided by Nepalese IT firms are web application development and mobile application development.

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According to economic survey 2015-16, Nepal government have invested in different IT related task which is shown in figure 2.2 below.

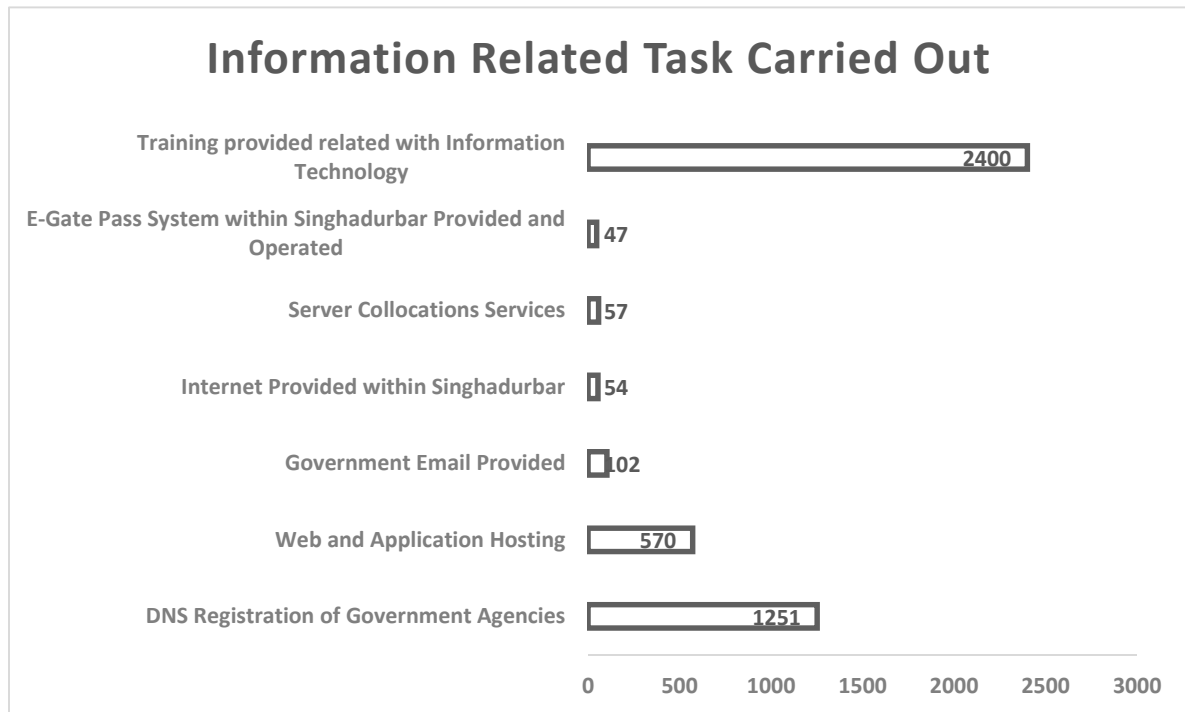


Figure 2.2: Information Related Task Carried Out by Gov.

(Source: Economic Survey 2015-16)

2.3 Challenges and Opportunities

2.3.1 Challenges

- i. Brain Drain
 - Most of the skilled IT manpower is settled in foreign countries by getting knowledge in country.
- ii. Turnover of IT employee is high
 - In search of better monetize value and better job position most of the IT employee switch the organization which results in switching cost for the industry.
- iii. Rapid Development in IT infrastructure
 - Hardware, software and services are improved in every six months which make the acquired technology obsolete in rapid pace.

2.3.2 Opportunities

- i. IT is in growing phase here in Nepal.
- ii. Organization are digitizing their work.
- iii. Developing product in local and is easy to reach in global market
- iv.** IT industry can be operated virtually which minimize the operating cost of organization.

CHAPTER III

INTRODUCTION OF THE EAGLE VISION IT

3.1 The Context

Eagle Vision IT is an outsourcing and web development company that provides services to organization, company, personal user and many more. It is a development agency offering high-end solutions for web and mobile throughout the global market. It strives to deliver world class design and code from Nepal to UK and Sweden. It is a research based digital creative agency which help its clients build a digital presence, with its agency based in Lalitpur, Nepal. The team of the organization has been in the digital field since 2015 and is good at providing bespoke solutions to challenging or eccentric requirements.

Eagle Vision IT also provides programming skills to the developers and also assign projects to the developers regarding their skills. Organization believes in producing full-stack developers rather than developers who are focused on writing the same lines of code every time. It specializes in web design, wordpress, web shop, apps for Iphone Operating System (IOS) and Android (Eagle Vision IT, 2015).

3.2 Present Situation

Eagle Vision IT offers web services to the medium business and large organizations. The services are Website Design and development, Web Application Development and Management, Mobile Application Development and Management, User Interface and Graphic Design, Search Engine Optimization, Social Media Marketing, Corporate Solutions, and Domain Registration and hosting. It is currently operating from three countries: Nepal, Sweden and United Kingdom. The clients of organization is mostly from Sweden and some of them from UK and others are from Nepal. The figure 3.1 below shows the distribution of clients from different geographical region.

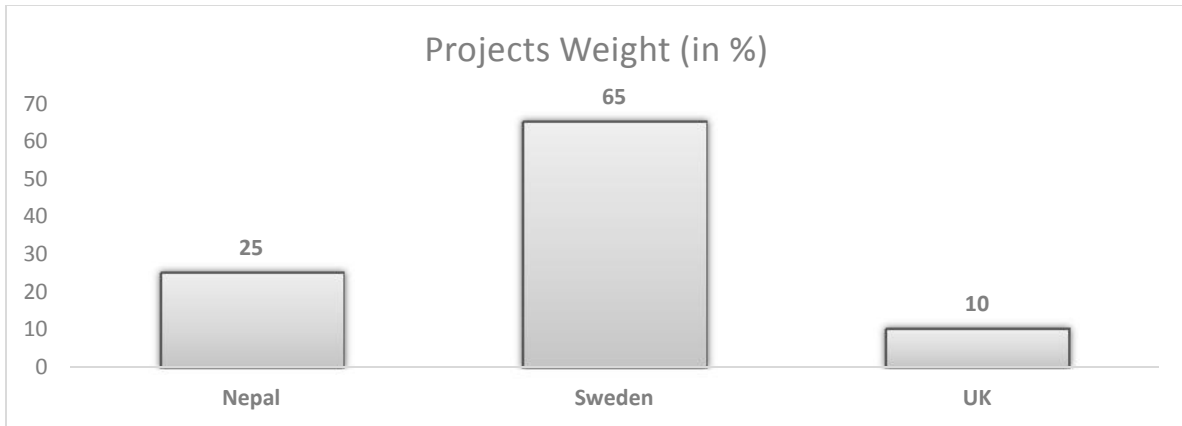


Figure 3.1: Projects Weight from Different Countries

(Source: Eagle Vision IT Newsletter 2016)

The company major source of revenue is Web service, Mobile Application and Social Media Services and the demographics is shown in figure 3.2 below.

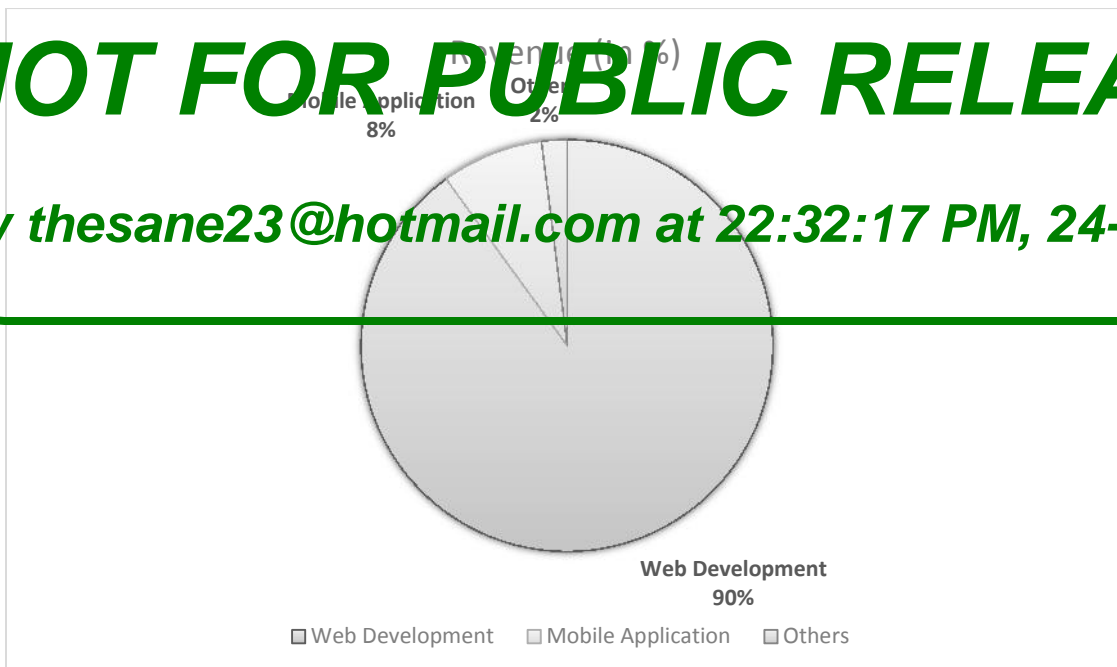


Figure 3.2: Revenue from the Different Source

(Source: Eagle Vision IT Newsletter 2016)

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3.3 Challenges and Opportunities

3.3.1 Challenges

- i. Reduction in Delivery Time
 - The delivery time of the system to be developed is decreasing day by day and it the major challenge to deliver the reliable system in time.
- ii. Competitive Market
 - Number of IT firms are growing in a rapid pace so that the competition makes the organization low profitable.
- iii. The organization does not have its own product since it works only for clients. Therefore it needs to depend on the external clients for the projects.

3.3.2 Opportunities

- i. Low wages manpower is available
 - Thousands of IT graduates are produced every year from the universities and is easy to get the skilled manpower.
- ii. Operated from different regions made organization get more clients and projects.
- iii. Working with foreign client will simulate the market price of foreign country whereas organization operates in cheap price.

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CHAPTER IV

ANALYSIS OF ACTIVITIES PERFORMED

4.1 Introduction of Activities Done

I was assigned to create a simple content management system (CMS). The whole system was divided in different tasks and same task is also divided into multiple increments. The major task that were performed during internship period are listed below:

- i. Create an Admin Panel
- ii. Create an User Panel
- iii. Refine the Increment

i. Create an Admin Panel

Admin panel was created with features like page manager, image manager and site configuration. Programming task was that the features available for the admin need to be developed and the requirements (Sommerville, 2011) for admin panel were as follows:

- a. Page manager module allows an admin to create a page that include page title, page content and image and list all the pages available in database. The admin can perform certain action such as edit or delete as per requirement. To delete the content of page manager confirmation needed.
- b. Image manager module allows an admin to upload the several images as required and displays all the images that have been uploaded and also allow to delete images. Confirmation required to delete the images so that accidental delete can be avoided.
- c. Site configuration module allows an admin to update email and password.

ii. Create an User Panel

The user panel was developed for user and can access the navigation menu, content pane and can view some images. The requirements for the user panel were as follows:

- a. The name of the site need to be extracted from site configuration and displayed in head section of the page.

- b. List of all the pages that were available in database should be available in navigation menu.
- c. Image need to be displayed in small thumbnails and when clicked on thumbnails images should be displayed in original size in the same page without jumping to the next page and without modifying the flow of page.

The User Interface (UI) of user panel and admin panel were designed using bootstrap.

iii. Refinement Increment

The user panel and admin panel were refined in multiple iterations. Some of the tools that were used for the refinement in multiple increments are listed below:

- a. **CKEditor**
 - Which avails text formatting in text input also known as What You See Is What You Get (WYSIWYG) effect.
- b. **Bootstrap**
 - Which was used for UI design.
- c. **AJAX**
 - For exchanging information from server without complete page refresh.
- d. **Imagick**
 - For manipulating images.
- e. **prettyPhoto**
 - For lightbox functionality.

4.2 Role of Intern and Fitting in the Organization Structure

Intern trainee was the job title and the duties of the post are to solve the specified task assigned. Accepted intern as frontend developer but for better integration of their work backend development task was also assigned at first. Fitted as the low level employee in the organization and have to report to the supervisor if the assigned task was completed. For the development private cabin was provided and also friendly environment. There was no any restriction to coordinate with other employees regarding project.

4.3 Occurrence of the Issues and their Solutions

- i. During the first week of internship, the intern was required to read all the concept that were required while doing the project and required to learn how to use Git Hub. It was a new thing and learned to use it became difficult at first. Through video tutorials in YouTube and reading articles related to Git intern was able to know what is git and how to use it.
- ii. The intern was not familiar with the integration of web systems before. How the backend and frontend work together to achieve specified goal? From the training and support from the supervisor the problem of understanding the system was solved.
- iii. Concept of Ajax, bootstrap, pretty photo, imagick, PHP mailer and slug became complicated task to implement in the project assigned because some of the technologies and tools were completely new. The problems occurred during their implementation were solved by taking help from the ordinates and from the internet.

4.4 Experience in the Internship

On the first day at Eagle Vision, the intern felt uncomfortable to work due to the rules, regulation and working structure of an organization but the good part was employees of the organization were friendly and supportive. Good environment was provided for learning and project manager was always there when required suggestions, help and guidelines.

The organization had almost nine hours of working time and was the major issue for me. The employees were treated equally and provided same services and facilities to each and every individual. Eagle Vision had adequate space for working and was well furnished. The required material were provided to each employee while performing the task and also were provided with high speed of internet which make it easy to work in a team.

The best part of Eagle Vision was the support in education for the employees and for the intern too.

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CHAPTER V

LESSON LEARNT AND CONCLUSION

5.1 Lesson Learnt

The period of internship was two months but the knowledge gained from it was more than expected. It had provided a lot of opportunities to learn new things and helped to know the strength and weakness. In college we were taught what to learn and why to learn but wouldn't teach how to learn and that was fulfilled by internship program. And also had provided the required knowledge that were needed while working in any organization. The lessons that were learnt during internship period is listed below:

- i. Concept learned in academic life and way of implementing those in real world might be different but learning habit developed during academic life was an asset.
- ii. If you had done some projects during college days then it would make life better in workplace.
- iii. Learning is by doing and the mistake teaches.
- iv. Knowledge gained during academic life along with continual learning plays a vital role to pave the career path.

5.2 Conclusion

BIM program taught a lot of things that are required to be an IT professionals and also learning environment and the faculties provided by the college were the countless one. The opportunity that was provided by the university through industrial attachment project in final semester should remain so that student could simply find their job right. The objectives that were set before doing internship were fulfilled and also Internship program became the life changing event which had expanded the horizon of my knowledge.

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