## INTERNSHIP ON WEB DEVELOPMENT, UNITECH IT LIMITED

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science and Engineering

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APRIL 2018

#### **APPROVAL**

This Internship titled "Internship On Web Development", UNITECH IT, submitted by Md. Adnan Hasan ID No: 141-15-083 to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 7<sup>th</sup> April 2018.

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#### **DECLARATION**

I hereby declare that, this project has been done by me under the supervision of **Nadira Anjum Nipa** Lecturer, Department of Computer Science and Engineering, Daffodil International University. I also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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#### **ACKNOWLEDGEMENT**

First of all, I express my sincere gratitude and thanks to Almighty God for His divine blessing makes me possible to successfully complete the last stage of the year.

I wish to express our sincere gratitude to Prof. Dr. Syed Akhter Hossain, Head of the CSE Department, for his kind assistance in carrying out our project, as well as for other members of the faculty and staff of the University's CSE department.

I am very grateful to my guide, Nadira Anjum Nipa, lecturer at the CSE department at Daffodil International University, for her invaluable advice during the semester. Her endless patience, academic advice, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, the reading of her sketches and correction in all stages allowed me to complete this stage.

She always gave me suggestions and also helped me when the work was not ahead of schedule.

I am very grateful to the CEO of UNITECH IT for giving me an excellent opportunity to learn a lot. I am especially thankful to Engineers team of UNITECH IT.

I am also very grateful to the software engineer of UNITECH, Mr. Riyadh Siddique, who helped me a lot to learn about web development.

#### **ABSTRACT**

This report presents an experience in reputed organization named UNITECH IT ENGINEERS. Which is a project under Software Development Methodology based on OOP with PHP and laravel. The goal of this project is to design an online bookstore that mainly sells computer and technical books and also many kinds of books. The book inventories are stored in Heidisqli for database. Customers can access the bookstore web site through the World Wide Web. Customers will be able to search the database to find the books they want, check the availability, and place the order to buy the book by Cash on hand and Bkash.

This internship allowed me to increase my knowledge in web development which I had many difficulties. I did my best to implement web development in efficient way. This report described about the implementation process of the project and its various details. I hope I can upgrade this project more in future and expand all the features of this project.

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#### **CHAPTER 1**

#### INTRODUCTION

## 1.1 Objectives

During the internship, I work with practical knowledge. To work an organization offering a responsible, challenging and creative work profile, a conductive work culture, continuous learning environment, where my practical and technical expertise can be utilize. I want to take new challenges and learn to improve and develop new skills that will help me in my future life. The main purpose of my internship is web development.

The objectives of this internship also aims to the specific objective are following:

- Apache & MySQL server / Xampp server
- OOP with PHP
- MySQLi
- Html & CSS
- Bootstrap
- JavaScript
- Basic laravel
- Symphony

#### 1.2 Motivation

In the future, I want to develop my career as a web developer. That's why I'm very interested in web development.

### 1.3 Internship Goal

Today internet is fast growing media in the world. It is spreading in every parts of our life. Every day we are facing new challenges in our daily life. We try to it in our own way. But when a combine effort is needed, we try to solve it with the help of other people. If the man has entrusted to us, he will try to solve his efforts to combine the help of the other. This is in the process of a global village, so all that the internet is the best way. It is not necessary, as it is implied in the flesh. Contact us if you click on any technology. It's amazing to name a technology that is implemented over the internet.

Web development is needed to understand what I want to do next year for web development. Web development is a big change in the traditional way companies think about computational resources.

For the work, which is a common goal to develop their skills and work.

### 1.4 Report Layout

The internship report is organized in another chapter, and each chapter speaks different perspectives. The first part of the report objectives, motivation, the purpose of training and the layout of the report. The next chapter is an overview of the organization, followed by a description of all the tasks performed at that time. Next, it will be further detailed to illustrate the most important task and its evaluation. Finally, the report contains some recent comments and conclusions from the experience.

#### **CHAPTER 2**

#### INTERNSHIP ENTERPRISE

### 2.1 About the Company

UNITECH IT Limited was founded in 2012. Established as a high-end software Company in Bangladesh, it has since evolved into a full-service IT Solution Company. It works in agile software development and business intelligence. Our development wing works in large scale web and mobile applications. And with our partner Interact we provide Big Data, Business Intelligence, CRM and Complex Event Processing Solutions. We work in Public, Private and Non Government sectors. Our primary focus is Telecommunications, Financial and Banking, E-Commerce, Health and Education industry. Our Clients include some of the largest Banks, Telecom Service Provider, E-Commerce, UN- Bodies, Governments, Universities and Hospitals from Italia, USA, Dubai, Saudi Arabia and Bangladesh.



Figure: 1.1 – UNITECH IT Limited

### 2.2 UNITECH Objectives

The Objectives of UNITECH IT are given below:

- Software & Web Development
- Freelancing & Outsourcing
- Domain & Hosting
- Web Design Development
- CCNA & MicroTik
- Graphics Design
- Auto CAD 2D & 3D Max
- Unitech Power Solution
- Lift
- Genarator
- Elevator
- Unitech Architect & Interior
- Interior Design

#### 2.3 UNITECH Services

UNITECH serves Software development, Web application development, System Design, Domain and Hosting, IT support and freelancing, Auto CAD 2D & 3D MAX, Power Solution etc.

## 2.4 Company Culture

A good corporate culture is no longer a choice. Employees look at it the same way they look at wages and benefits. In fact, a fascinating corporate culture can be expected with other traditional interests.

My first day at UNITECH IT Limited I was nervous about how the company saw what the corporate culture would look like and how it would tell me. But when I came to the company, I was very surprised. I thought that was a huge deal and I noticed a lot of professionalism. But my thinking is wrong. The company is like home.

### 2.5 Working Environment

UNITECH IT Limited provides a professional, productive and efficient working environment.

- Highly configured computers for each of the employees are provided.
- Anyone in the office can immediately finds tech supports help if needed.
- The shop is not rich enough, but they are working on it.
- Employee attendance is ensured by finger print and identity card of each employee daily.
- Every employee has their own desk with computer
- Chat Work is used for internal communication and keep trace of assigned tasks.
- UNITECH IT Limited arranges a general meeting every month to share overall progress of the company and expectation from the employees so that they can keep updated and motivated.
- UNITECH IT Limited arranges a tech talk session every Friday to let the employee keep update with recent technologies.

## 2.6 Working Time

Working hour in UNITECH IT starts at 10:00 am and ends at 7:00 pm. But the office entrance time is flexible up to 11.00 am without costing half day leave. Every employee must serve at least 8 hours per day. Enough flexibility to take casual, emergency or sick leave. Friday and Saturdays are weekend holidays.

## 2.7 Change The World With Technology

Traditional economies, characterized by natural limitations, have limited availability and flexibility to the public. In economies, only products that can be accepted by a large group can be transferred. The appearance of the open Internet world, however, calls the most physical barriers (distance, time, space and money). So they can offer vast amounts of information and Internet goods to meet the variety different needs. The equipment and facilities for accessing the Internet and accessing the Internet are constantly improving. UNITECH IT Limited believes that ideas and technologies can

control diversity in an open world. Technology is only a tool, but is capable of allowing small organizations and individuals to change the world.

#### 2.8 Roles in Job Market

UNITECH is one of the best IT Company in Bangladesh. Since its inception, UNITECH has primarily focused on Enterprise Level Applications and software product, automated system for various manufacturing industry verticals.

### 2.9 Clients

UNITECH IT Limited have many clients to sell software. Such as.....



Figure: 2.1 – UNITECH IT Limited Clients

#### 2.10 Benefits

Web design is an art. It has become more common than ever. Every day, I create my own websites for professional and personal use. Here are some factors and benefits that can contribute to my Web career development training.

If anyone are interested in a professional web designer, start preparing the appropriate training. There are many quality educational centers in our area. It's easy for those who have already developed artistic skills and talents.

Web design does not just create a website, content and images. First, we need to explore what we need, then design and build a complete website, with our own ideas and creativity.

It provides the hypertext content of hypertext content displayed to the end user on the Web, or the presentation of browsers, such as thumbnails, RSS readers and Internet TV client software. There is a strong line between information technology and web development.

Web design is a versatile graphic design for the development and style of the article. Website, attractive design and font page are two important factors. Responsible design plays an important role as it is a good idea for all site users, such as mobile phones and the Internet.

### 2.11 Company Mission & Vision

Company's Vision will continue to be the benchmark against which other IT companies are measured. Company will do this through the intensity of our methods and their commitment to developing the best IT professionals and IT solutions for the business community. Every day they deliver high quality applied IT education, solutions and services to individuals for business, for life. They accomplish this through their People, their Professionalism and their Innovative Methods. Built upon the experience and capability of the company's workforce our vision is to establish a primer IT solution provider that delivers excellence in the work we undertake.

#### **CHAPTER 3**

#### INTERNSHIP ROLES AND RESPONSIBILITIES

### 3.1 Training Attended

This report describes activities that take place within four months of full-time training in UNITECH IT Limited. This document contains information about the organization and its responsibilities. During internships, I would like to actively participate in the company's goals by applying the knowledge acquired in the studies. I will be trained in Basic PHP & MySQL, OOP, Design Pattern, Basic Laravel.

### 3.2 Assigned Responsibilities

After the training they got some work. This training gave me more information about web development, database and design models which I had many difficulties with. I did my best to effectively place the system. This report describes the work implementation process and various details.

#### 3.3 Work Environment

UNITECH IT Limited is a leader in software technology. It is one of the companies for full employment. Company's working environment is so good and corporate office. In this business, all employers are very familiar and useful.

#### 3.4 Performed Tasks

First and foremost, my company's supervisor tells me to learn about Web development, Mysql, OOP with PHP, Bootstrap, HTML, and that's essential to developing a website. My academic knowledge has helped me a lot to do certain things.

My internship tasks are given below:

## 3.4.1 Demo Projects

**Project Name: Online book shop** 

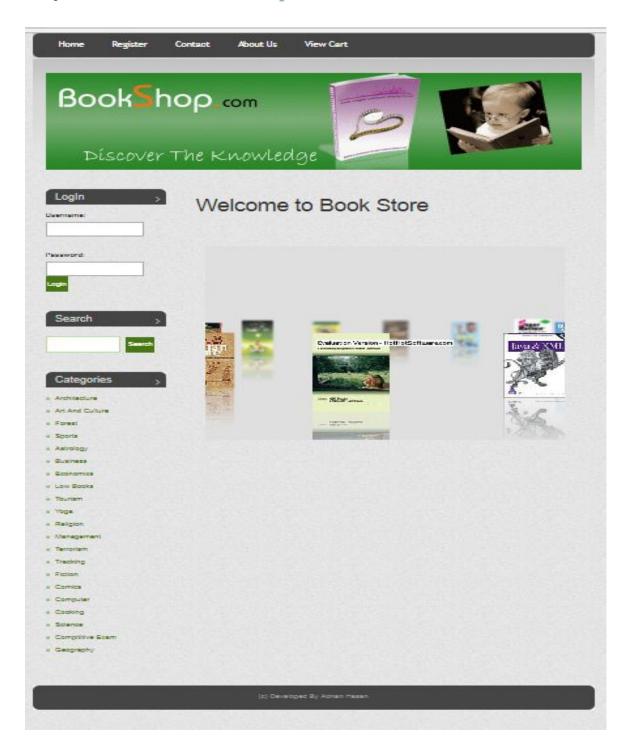


Figure: 3.1 – Book Shop

### 3.4.2 Projects Abstract

The objective of this master project is to design an online bookshop that mainly sells computer and technical books. Book inventories are stored in the HeidiSQL database. Clients can access the shop's website through the World Wide Web. Customers can search the database to find the books they want, check availability and place the order to buy the book in this bookstore and customers could not buy any book without registration. After completing the registration, customers can buy books on this shop. I deliver the client's book by home delivery if Customer want. Customers can pay the amount of the book by hand in cash or Bkash.

## 3.4.3 Design and Methodology

In this project several technical approaches are used:

- HTML CSS for the design and implementation of web pages.
- HeidiSQL for the database system.
- Apache and my SQL server for the connection.
- SQL, the structured query language, is used to access and manipulate the database.
- OOP with PHP for client-server communication.
- Sublime text editor for encoding.
- The URL PHP class for implementing search in the book shop.

## 3.4.4 Architecture of the System

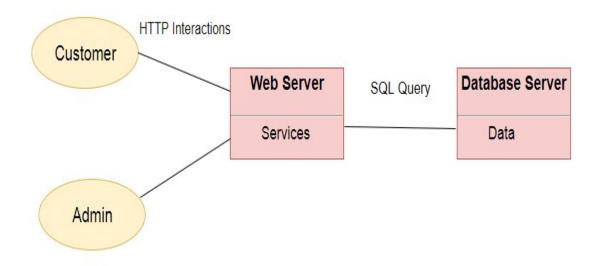


Figure: 3.2 – Architecture of the System

## 3.4.5 Activity diagrams

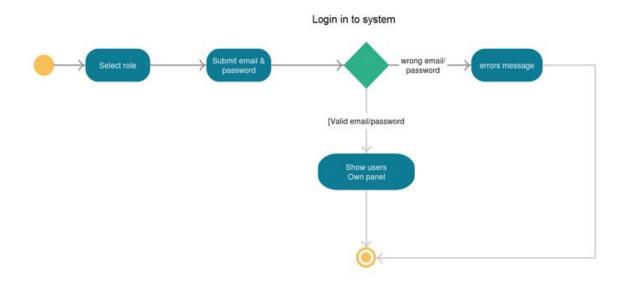


Figure: 3.3 – Activity Diagrams

## 3.4.6 Data Flow Diagram

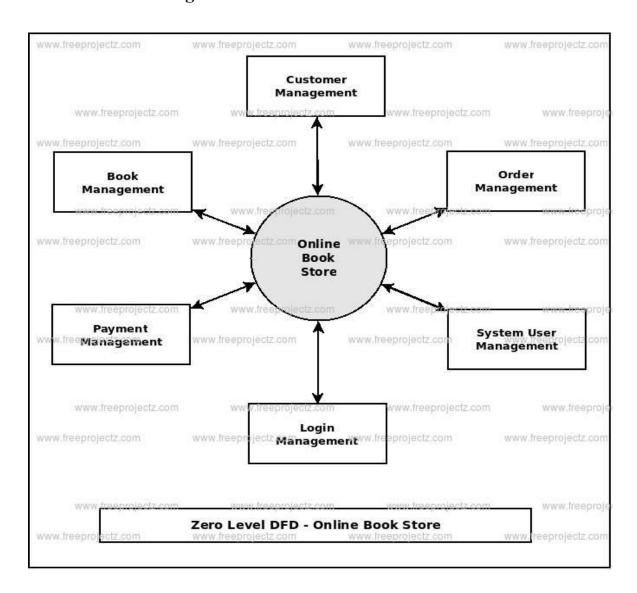


Figure: 3.4 – Data Flow Diagram

## 3.4.7 Class Diagram

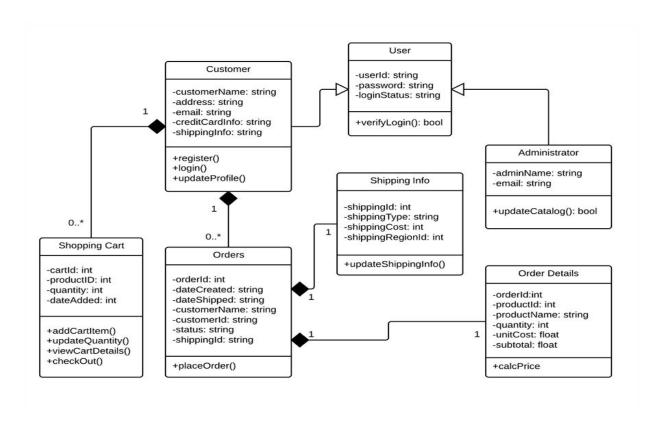


Figure: 3.5 – Class Diagram

### 3.5 User Interface

Screen shots of user interfaces are showing to next pages...

## > Registration Form

This is the registration form for user. Customer can register on book shop. Without registration customer can not buy any book. They only can see all book.

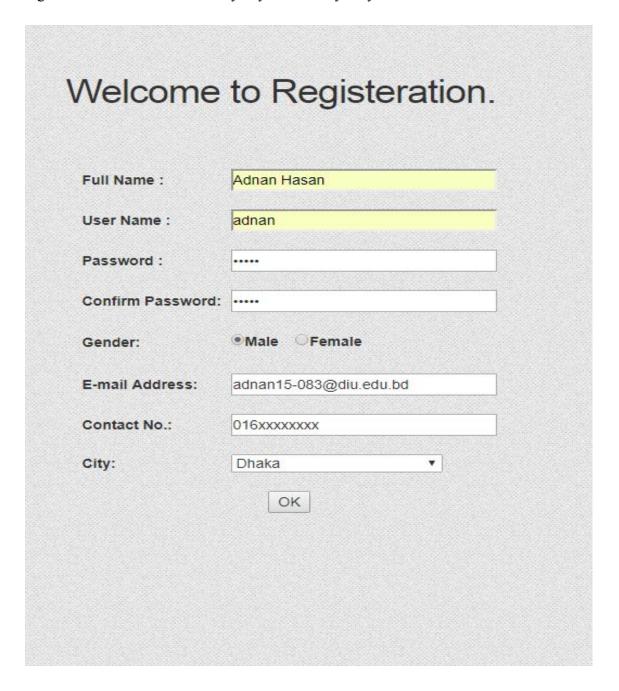


Figure: 3.5.1 – Registration Form

## Log In

Use the same login form for the administrator and the user.

Once the user has chosen to buy books, the user is asked to enter their registration information. If the user already has an account in the shop, simply enter their user name and password. This class collects the user name and password and then uses Mysqli to find out if the information in the HeidiSql database is valid. When the information was assigned to the registry, the user was redirected to continue with the verification. Otherwise, the user has been asked to enter personal information to creat an account.

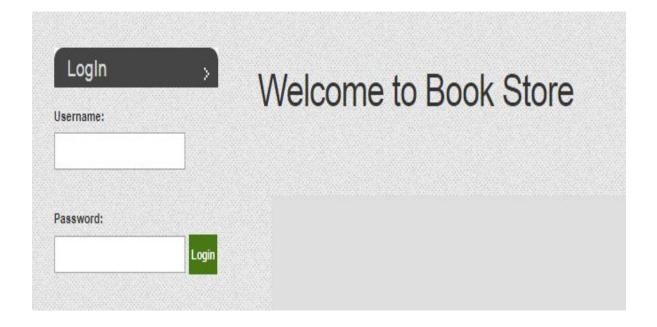


Figure: 3.5.2 – Login Form

#### > Admin

- Admin is the person who controls, monitors and manages all book data. The main functions of the administrator are:
- Add / Delete Categories
- Add / Delete subcategories
- Add / Delete Books
- Existing Check existing users
- Check book orders from different users

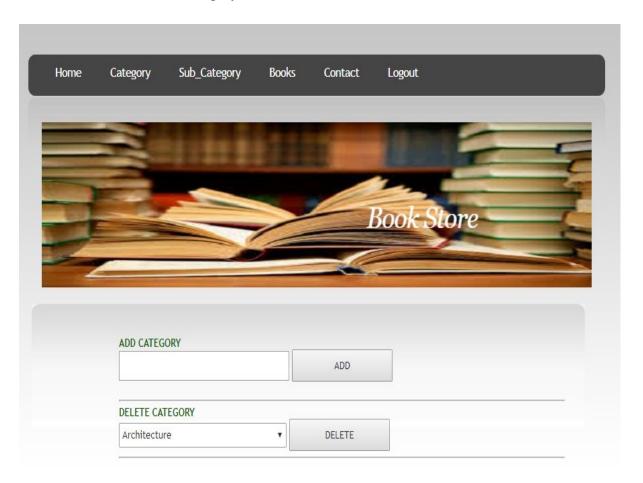
## > Admin Login



Figure: 3.5.3 – Admin Login

## > Update Category

Admin can add or delete Category.



f	
	(c) Developed By Adnan Hasan.

Figure: 3.5.4 – Category

## > Update Sub Category

Admin can add or delete Sub Category.

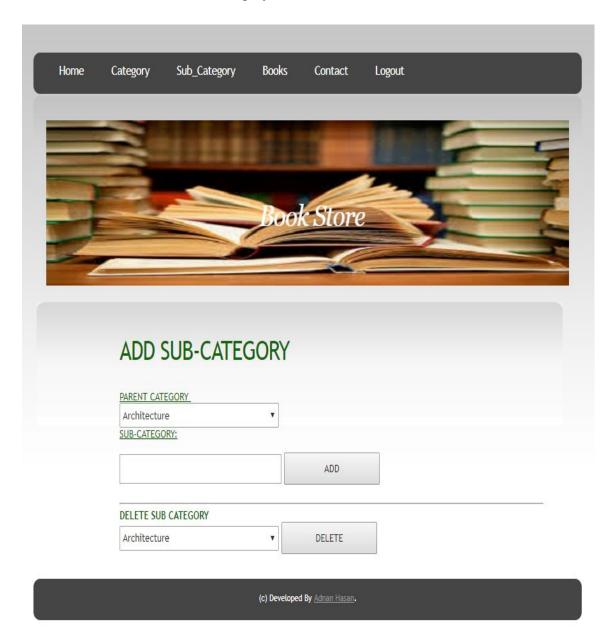


Figure: 3.5.5 – Sub Category

## > Add Book

Admin can add any kind of book on this book shop.

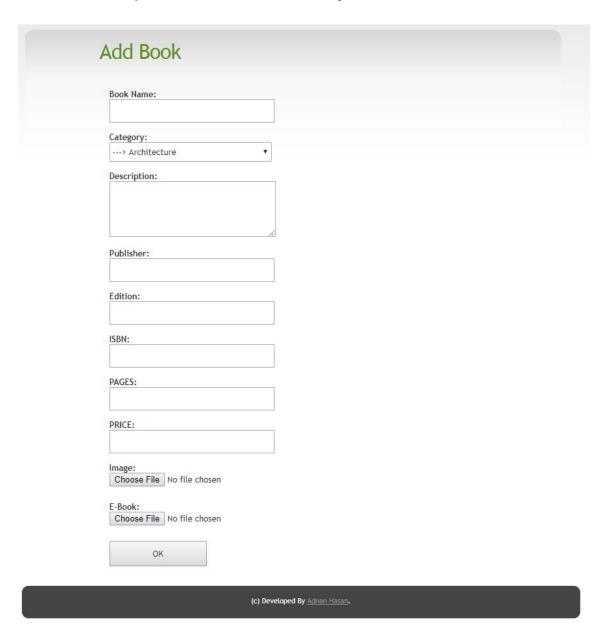


Figure: 3.5.6 – Add Book

#### Delete Book

Admin can Delete any kind of book from this book store.

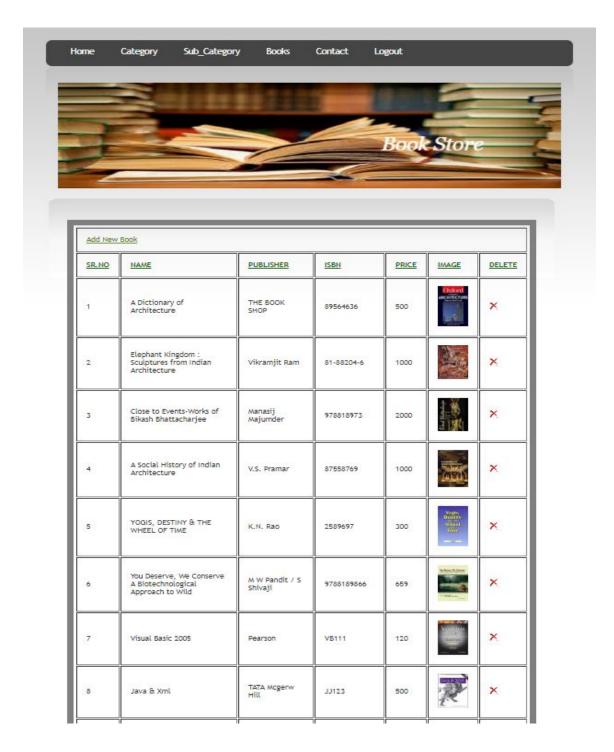


Figure: 3.5.6 – Delete Book

#### Edit Contact

Admin can delete contact.

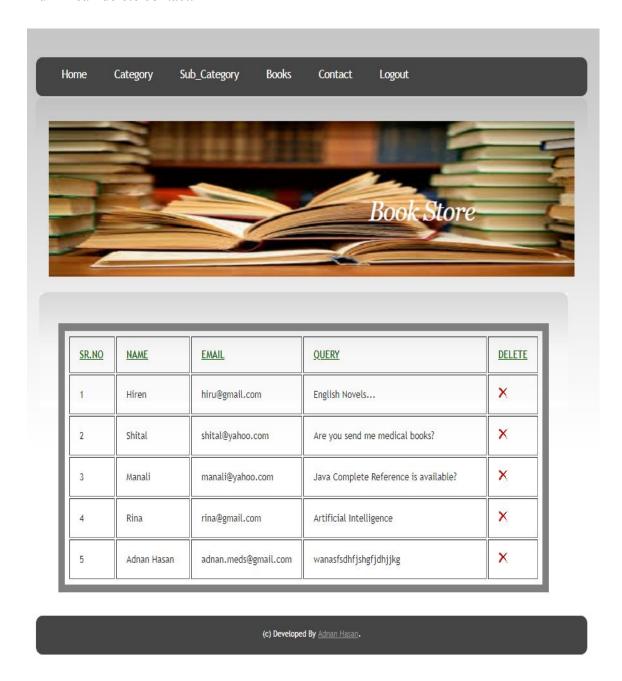


Figure: 3.5.7 – Edit Contact

#### > User

User is the person who want to Purchase any Books. The main functions of the users are:

- User registration
- User network
- Verify about us
- Contact with the administrator
- Find a book
- Add to the shopping book
- Home delivery services
- Payment in cash by hand and Bkash payment system.

## > User Login

Log in by user name and password.

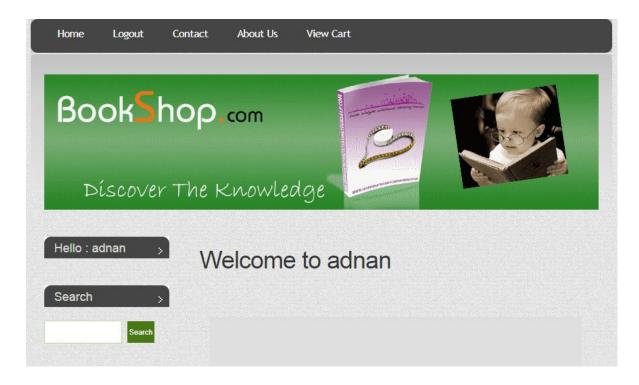


Figure: 3.5.8 – User Login

## Categories

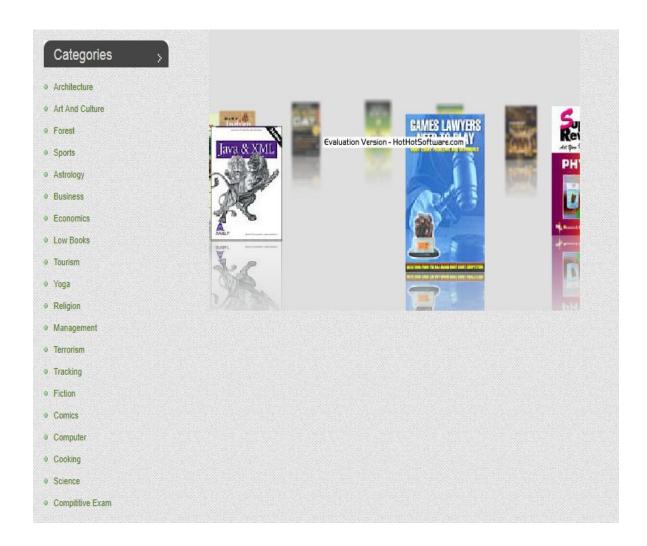


Figure: 3.5.9 – Categories

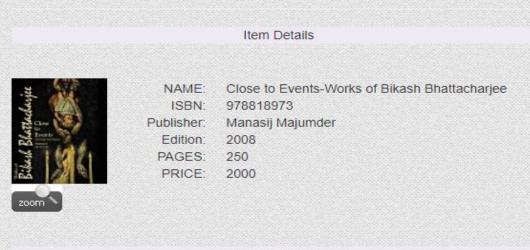
#### Book lists



Figure: 3.5.10 – Book lists

### **Book Descriptions**

# Close to Events-Works of Bikash Bhattacharjee



#### DESCRIPTION

Launching his creative career in the late ?50s, Bikash Bhattacharjee stood out among his contemporaries by making hard-edged chiseled realism the core appeal of his canvases when realism or naturalism of every shade was considered a retrograde trend. Bikash?s strengths were his exceptional technical mastery and his power to charge the tangible appearance of the surface with the reality of the depth beneath. He was admired not merely for the near-illusionist evocation of realistic details, but for the obvious or subtle distortions in his imagery as a key to their complex multi-layered meanings. His realistic idiom is fascinatingly robust and compulsive, laced with rich irony, strong-veined allegory and lush visual metaphors. His portrait-based images enact the artist?s own experience of our time with all its dark social and moral tones and textures. Close to Events: Works of Bikash Bhattacharjee deals with Bikash?s early life in an old North Calcutta locality, the urban social ambience that shaped his creative personality and explores why he chose to remain ?close to events? and free from the dominant trends in post-Independence Indian art. It also analyses the technical and stylistic development of art with detailed exposition of some of the themes and subjects in the major series of his paintings.



Figure: 3.5.11 – Book Descriptions

#### > View Cart

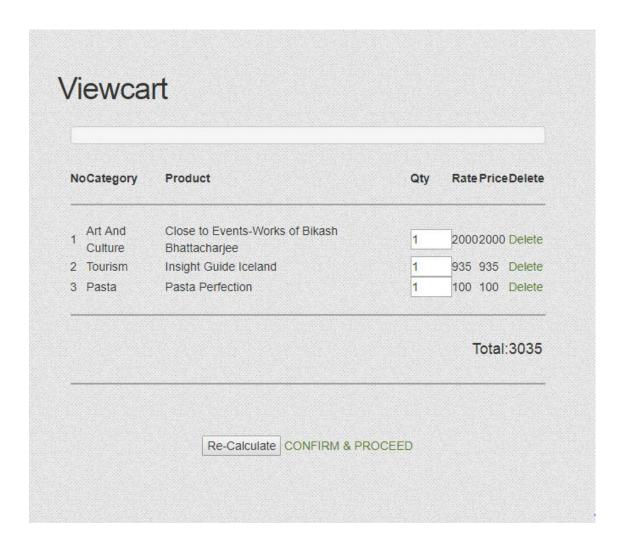


Figure: 3.5.12 – View Cart

## > Shipping Details

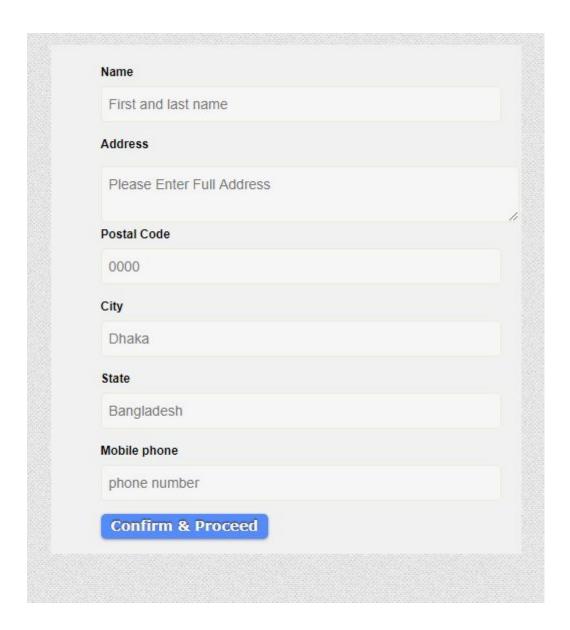


Figure: 3.5.13 – Shipping Details

## > Payment Method

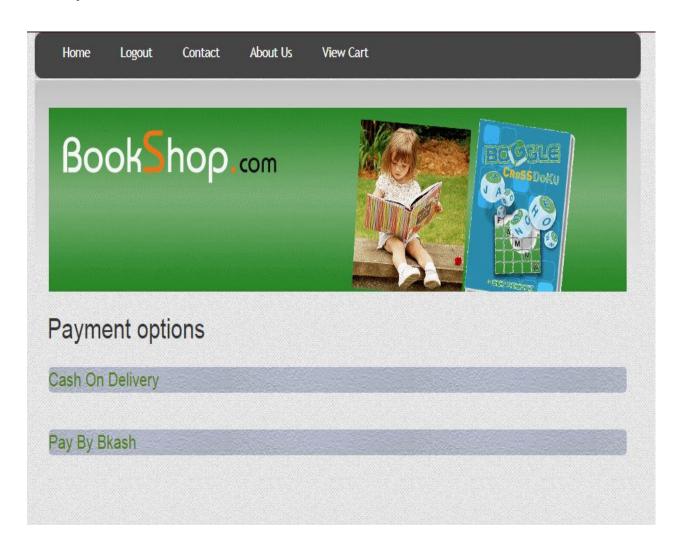


Figure: 3.5.14 – Payment Method

## > Bkash Payment



## **Payment Method**

## Merchantile Bkash Wallet No: 016XXXXXXXX

- 01. Go to your bKash Mobile Menu by dialing \*247#
- 02. Choose "Payment"
- 03. Enter the Merchant bKash Account Number you want to pay to
- 04. Enter the amount you want to pay
- 05. Enter a reference\* against your payment (you can mention the purpose of the transaction in one word. e.g. Bill)
- 06. Enter the Counter Number\* (the salesperson at the counter will tell you the number)
- 07. Now enter your bKash Mobile Menu PIN to confirm
- \*If Reference or Counter No. or both are not applicable, you can skip them by entering \0\.

Done! You will receive a confirmation message from bKash.

Then fill up the box below Bkash Mo No. and Transection no.

Bkash Mobile Number:	
Transection ID Number :	
Submit	

Confirm Us Withih 24 hours of your payment

Figure: 3.5.15 – Bkash Payment

## **♦** Implementation

#### **Database summary:**

The database of online book shop consists of 6 tables.

#### > F Books:

Define the inventory of the book. It has the following fields:

book id (primary key), book name, book subcategory, book description, book publisher, book edition, book ISBN, book page, book price, book image, book pdf.

#### > F User:

Define the inventory of the user. It has the following fields:

User id (primary key), user full name, user name, user password, user gender, user email, user contact, user city.

#### > F Shipping Details:

Define the inventory of the Shipping Details. It has the following fields:

Id (primary key), name, address, postal code, city, state, phone.

## > F Category:

Define the inventory of the Category. It has the following fields:

Category id, Category name.

## > F Subcategory:

Define the inventory of the Subcategory. It has the following fields:

Subcategory id (primary key), parent id (cat\_id), subcategory name.

#### > F Contact:

Define the inventory of the Contact. It has the following fields:

Contact id (primary key), contact name, contact email, contact query.

## **♦** Description of the PHP class file

This project consists of a total of 10 php files.

## **▶** BookDetails.php

Set the object for a single book. Each book has a Name, ISBN, Publisher, Edition, Pages, Price, and about books.

#### ShoppingCartItem.php

Each shoppingCartItem object contains an object that is a book and the amount of books.

#### Viewcart.php

Viewcart is implemented as a hash table that can hold a book in ShoppingCartItem and the number of different books in the hash table. The Add method is used to add a ShoppingCartItem to the hash table. Remove the method to remove one from the hash table.

## Checkout.php

The Checkout class has a trash object and has the method of calculating the total price of all books in the cart.

#### BookSearch.php

This class served as a bridge between the customer's request and the online Book shop . This can handle Cilent's search by book name. After the customer has been submitted by book name, a query is generated in URL string format and sent to online Book shop using the standard php URL class. Online Book shop will respond to this request by returning a long string of HTML source code containing books from the database that match the query provided by the client. Book shop returns 25 books on one page, so the goal of this class is to scan all the useful strings of this long HTML source code, including ISBN books, titles, price and availability. After receiving all these channels, generate another HTML containing all the information from the book and display it on the client's screen.

#### ProcessCart.php

This class displays all the books the user has added to their cart. The session was found through the server session tracking API, checking the session ID. The information in the book has been extracted from the hash table of the shoppingCart object. The HTML code was generated and sent to the user's screen by the view method.

#### Login.php

Once the user has chosen to purchase books, the user is prompted to enter the registration information. If the user already has an account in the shop, simply enter his user name and password. This class captures the user ID and password, and then uses SQL to determine if the information was valid for the Mysql database. When the information was assigned to the registration, the user was redirected to continue the verification. Otherwise, you have been prompted to enter personal information to create an account.

#### > register.php

This class creates a new account for the first client and the information is entered into the Fcustomer table using Mysql.

#### CheckOut.php

This class first displays all the contents of the customer's information. After full fill the information then customer can access in payment option.

#### > PaymentDetails.php

This class is called as soon as the user has entered all the details of his payment method. A command is generated in the orders table by assigning a new command identifier. The total price and Bkash account information are included in the table. Even in the PaymentDetails table each book in the basket will be an object on the table

#### **CHAPTER 4**

#### **INTERNSHIP OUTCOMES**

#### 4.1 Problems & Solutions

It is assumed that students are free. But, as the famous saying goes, "a rocker has no foam", says that if students are not supervised or supervised by a small severity, they can not remove anything from the program. I was fortunate to be part of a team where my boss and other colleagues always guided me and gave me their precious thoughts. This section describes my work during the training.

## 4.2 Learning Phase

The team took a sufficient amount of time for preparing me. From the beginning, my responsibility was to gather knowledge on some relevant topics for the project. This included learning the client's requirements and expectation, project work flow, some tools and frameworks, some knowledge on best practices. During the time, I have learned-

- How to make a web site
- Basic functional testing
- ❖ PHP language and OOP
- ❖ Some valuable designed patterns and their implementation
- ❖ I learned about Laravel framework
- ❖ I had to study on Symfony which is an awesome framework of PHP
- ❖ I gained detailed knowledge about software development life cycle and product maintenance process.

## 4.2.1 Basics of Computing Hardware and Software

#### Hardware:

The material implies permanence and immutability. Software or programming can be easily modified. I can create a completely new program in the hardware and turn it into a completely new experience for the user. However, I can change the modular configuration of most computers by adding new adapters or cards that improve the capabilities of your computer.

#### Software:

Software is a generic term for organized collections of computer data and instructions that are often divided into two main categories: system software that provides the non-specific basic functions of the computer and the application software used to perform certain tasks. Chores.

The system software is responsible for controlling, integrating and managing the individual hardware components of a computer system so that other users of software and systems can see functional unit without having to deal with the details at a particular time. low levels, memory on the disc or text representation on a screen. In general, the system software includes an operating system and some basic utilities such as disk former's, file managers, screen administrators, text editors, admin tools and user authentication.

## **4.2.2 Testing**

In the preparation phase, UNITECH IT thought, it would be much efficient for an intern to understand the project fully if he can go through the whole project himself.

For this purpose, they planned me to push to functional testing first. Also, when you are testing something, you must keep all the issues organized.

So, testing the web application also improved my knowledge on how to keep things organized and presentable to others.

## 4.2.3 Training

UNITECH IT Limited wanted it to boost development as quickly as possible. But first they gave my basic learning the highest priority. For this purpose, for the first time, I received a demonstration project that was a simple TODO-LIST application. My supervisor advised me to apply my knowledge to this application only when I learned something new.

How did I apply my learning? Let me explain.

## 4.2.3.1 Basic PHP and MySQL

As already mentioned, I was assigned to the PHP team and decided to work on the back-end. Of course, my first task should be simple PHP and MySQL learning. When I was received by my supervisor and team, I learned from several website tutorials. So the job was to implement the application.

I only remember the moment when I implemented the application in a day and a half and received a great round of applause for a great analysis of requirements.

#### **4.2.3.2 OOP with PHP**

As I implemented the application with raw PHP and the code was unstructured and unreadable, my supervisor asked me to clear the OOP concept. It was a very good opportunity to build my OOP concept. Mr. Riyadh Siddique [Sr. Software Engineer] from UI/UX team helped me by giving some paid tutorials of PHP by Jeffrey Way to enrich my OOP concept with PHP. It took me about one week to finish it all. Then I implement the given demo application in object oriented method.

## 4.2.3.3 Design example:

OOP is not sufficient for your code to be well-formed. My company's head Md. Alauddin Rana has shown that I have some examples of designs to transform and suggest some design patterns. He is happy to know that most of her proposed patterns have been covered in our course. However, it is mainly focused on the MVC model, which means a model, look, controller. He had gave me his absurd time to describe it in detail. I was wondering how a technical person can teach so nicely. Although I

redistributed my MVC model application, my head changed it three times. I loved his steps and realized that he was going to paint, but he was able to understand the basics

#### **4.2.3.4** Laravel

Although the current project is based on the PHP symfony framework, it is useful to first learn the Laravel framework because it is simple and understands the basic concepts of the PHP framework. That's why my supervisor suggested that I learn the Laravel Framework up to CRUD (Create, Read, Update, Delete).

I learned it and implemented the same application in Laravel.

## **4.2.3.5 Symfony**

As a current project based on the Symfony framework, I did my best to find out what my supervisor suggested. I also implemented my symfony demo project and combined it as a feature of the multi-part project (as my supervisor told me to play with).

#### **4.2.3.6 Code Review**

UNITECH IT Limited took interns not for their testing needs. They had plan to push me to actual development. For this purpose, I had to go through the codes of already developed modules. It was for understanding the current work flow and coding standards they are following. All of my team members helped me a lot to understand the existing code of the running E-commerce project.

## 4.2.4 Meetings

In the first two months, I have to attend two meetings a day. One is a daily project meeting with all the members of my team. One with my supervisor, Mr. Riyad Siddique. Another is my members meeting.

During the day-to-day meetings, all developers shared the completed and pending tasks of their previous work day and offer an overview of plans for the current day. If there is something to talk to your colleagues and leaders, developers do it during the meeting.

At my supervisor's meeting, he took the news of the duties assigned to me that day. He gave me his important comments and suggestions to improve my quality in the apprentice's daily meeting.

## **4.3 Project Involvement**

I have been involved in the project since the beginning of my internship. I remember that when I gave it the application that was first developed, I found a problem on the first day when I checked it. As mentioned above, we should try to go through the application, I was involved in testing it.

Finally, when I was relatively competent, I solved minor problems. That increases my skills and confidence in writing professional code.

In early March, they gave me a small portion of the customer's development needs. Since then I have contributed to the project.

#### 4.4 Achievement

Below my achievements are described.

#### 4.4.1 Technical Skills

It is very pleasant and delightful to that I gained some industry oriented work skills. Some of those are described below:

#### 4.4.1.1 Laravel framework of PHP

Laravel is an open source web framework developed by Taylor Otwell, dedicated to the development of web applications that follow the Architectural Models View Controller (MVC) model. Some features of Laravel include a modular packaging system with a dedicated dependency manager, many ways to access relational databases, utilities that support implementation and maintenance of applications, and syntactic sugar segmentation .

I learned Laravel to be more easily understood by Symfony.

## 4.4.1.2 Symfony framework of PHP

Symfony consists of a set of PHP components, a web application framework, a philosophy and a community, all working together with the unit. Symfony aims to accelerate the creation and maintenance of web applications and replace repeated coding tasks. Symfony has a low cost used by the cache byte code. Symfony aims to develop robust applications in a commercial context, and aims to give developers total control over the configuration from directory structure to foreign libraries, most of which can be customized. To meet enterprise development guidelines, Symfony provides additional tools for developers, debugging, and documentation testing.

UNITECH IT Limited started as a start up in this country. It's been a while since I was six years old. Then, I see that the project that was entrusted to me was ahead of the project UNITECH IT Limited. As the scope of the project is very large and there are many security problems, they choose a project with a very powerful platform. Therefore, they choose Symfony.

## 4.4.1.3 JavaScript and AngularJS

I am very happy to say that I am currently studying and working in the front end with AngularJS, as the project is on its way to the end and there is not a large number of back-end problems that I can easily handle. First, I learned the basics of JavaScript. So Riadh Siddique [Software Engineer] helped me a lot to familiarize myself with the AngularJS 36 code structure of the Copell project. Now I contribute with my knowledge of JavaScript and AngularJS to the project.

#### 4.4.2 Communication skills

As in society every employee must be, I had to communicate with the members of my team. I was afraid to talk to strangers, especially foreigners. As I said before, two of our governing bodies are foreigners and I had to communicate with them for many reasons that have greatly improved my communication skills. He also improved my presentation skills. I thank the DIU for sending me to the companies. I think i improved my communication skills.

## 4.5 Challenges

There is a saying about the challenge "No pain, no gain". The more challenges you face, the more you can learn about reality. Not an exception in this matter. During the internship I faced the following challenges.

## 4.5.1 Adaptation to the professional environment

As an introvert, it's always hard for me to get used to a new place. I have already said that I am afraid to talk to new and strange people. But over time, everything starts to become normal.

## 4.5.2 Knowing the client's needs

For the first two weeks I had problems understanding the project requirements. The team developed a new feature and simultaneously tested for the next version. It was quite ambiguous for me, which I wanted to confirm. Fortunately, the members of my team did their best to get me out of the situation.

## 4.5.3 Practical knowledge and Theoretical knowledge

Studies teach students theoretical aspects of practical things. As a student, I had difficulty connecting my theoretical knowledge with practical work.

## 4.5.4 A long distance from my residence

I know, it can not be an excuse. But as a student, I do not have to take a long distance to my university. It took time to get used to getting up so early in the morning and getting ready for work.

#### **CHAPTER 5**

#### SELF ASSESSMENT

#### 5.1 self-evaluation

"Believe passionately in what you do and never consciously commit your standards and values, act like a true professional, strive for excellence and money will continue." - David Maister.

#### 5.2 Self-confidence

Before going to the internship, I had less confidence than now. During that time, they gave me their homework. I completed many of them on my own, some with the help of my team members. At first I made so many mistakes, but because of the mistakes I learned more and I can guarantee that the same mistakes will not be repeated.

## 5.3 Team Working Capability

In a team, collaboration is essential. During my internship, I worked according to my supervisor's instructions. Whenever I encountered difficulties, I first consulted with my supervisor and then with the task manager. I had the opportunity to share my best ideas. If the idea were acceptable, it was appreciated. Otherwise, they shared their valuable comments. That's how I learned to work as a team.

## 5.4 Learning ability

As a student, we have a lot of time. When it comes time to learn new things, we go further, with no idea how much we should or should not record the notes before acting. In the company, I learned to learn new things. In the beginning, it was difficult to learn in time. But gradually I improved my condition.

## 5.5 Ability to understand the client

In the company, I have always tried to understand the requirement. At first, he seemed to understand someone's needs. But little by little, trying to provide quality work, this helped me understand the requirements and improve my work.

## 5.6 Assistance and punctuality

All my friends know me as an indifferent person. I just followed the deadlines of my work. But in the office sessions, I had a matter of self-esteem to be punctual and finish the tasks. Also, I learned here, when someone trusts you, it becomes your responsibility to maintain your trust. The office environment made me realize how important punctuality is.

#### **CHAPTER 6**

#### **CONCLUSION AND FUTURE SCOPE**

#### 6.1 Discussion and conclusion

I would like to thank Daffodil International University. During this stage, I learned how to run a business and a lot of information about web development. The internship is an excellent opportunity for a student. In fact, it touches the company and by playing, students get something new.

The interesting fact is that here, students have a lot to do something great even without realizing the pressure. This period of experience helps the student in long run.

UNITECH IT Limited is a growing software farm in Bangladesh. This company proposes to develop equipment distributed globally. The experience of UNITECH IT Limited offers many opportunities to lead software industries around the world. This company taught me to express myself, taught me the value of punctuality.

I learned many important lessons from my supervisor, Mr. Riyadh Siddique, of UNITECH IT Limited, who improve my technical and personal field. I will never forget his precious advice.

## **6.2 Future Scope**

For a long time at the heart of digital audio and video equipment, computing technology continues to grow, often following changes in the corporate world. Currently, web development is becoming increasingly efficient for its customers.

In the near future, more effective tools will be developed for the advanced level of web development. The experience I gained from my trainee ship gave me a huge boost to develop a career in web development to satisfy customers.

## References

- [1] "Company" <a href="http://uit.unitechengr.com/">http://uit.unitechengr.com/</a> (Last accessed 12 march, 2018)
- [2] "Php" <a href="https://www.w3schools.com/php/default.asp/">https://www.w3schools.com/php/default.asp/</a> (Last accessed 30 march, 2018)
- [3] "About symfony" http://symfony.com/what-is-symfony/ (Last accessed 28 march, 2018)
- [4] "Symfony" https://en.wikipedia.org/wiki/Symfony/ (Last accessed 2<sup>nd</sup> April, 2018)
- [5]"Laravel documentation" <a href="https://laravel.com/docs/5.6/">https://laravel.com/docs/5.6/</a> (Last accessed 3<sup>rd</sup> April, 2018)
- [6] "Laravel" https://en.wikipedia.org/wiki/Laravel/ (Last accessed 2nd April, 2018)

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