DEVELOPMENT OF DIU BOOK SHOP APPLICATION

BY

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DAFFODIL INTERNATIONAL UNIVERSITY

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APPROVAL

This Project/internship titled **"Development of Diu Book Shop Application"**, submitted by Md. Imran Hossain, ID No: 142-15-153 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 Bachelor of Science in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 6th August,2019.

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DECLARATION

I hereby declare that, this project has been done by me under the supervision of Md. Mahfujur Rahamn, Lecturer, Department of CSE, 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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I am very much thankful to my advisor**,** who guides me nicely to do this work. His patience and mentality always give me a spirit that how can we complete this work. He provides all type of resource related to this. So I can get the actual theme to fulfil my work. Gives special thanks to **Md. Mahfujur Rahman, Lecturer,** Department of CSE, Daffodil International University who gives me a nice idea related to this work. Which process I can complete this work he gives me the suggestion.

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Finally, I give thanks to my family for their guide and their support I can complete my final year project. I complete my work nicely and get a spirit that in future I can fluently doing my work to achieve my goal.

ABSTRACT

Day by day the increasing popularity of online Book ordering system for the university students develop an e-commerce base Book ordering website and in this have some good features that how a student can order and purchase a product in this project try to make an online Book shopping base web application based on user comfortably. In this site have various types of Book item. A customer can order a product by his choice. Especially for DIU students who can easily see the list of Book s items then by the choice of his user can choose a product then this product adds to the shopping cart. A user can delete a product from the shopping cart. The project is working with user satisfaction that how easily a user can order and purchase the product online. In this project, the management system is very easy and comfortable for the user and easily interact with the website.

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Chapter One
Introduction

1.1 Introduction

Ecommerce website is responsible for buy and sells a product over the internet. This website is an e-commerce based website and working with ordering and selling Book over the internet. This site has a list of first Book items. A user shows the details information about the first Book items. If a user chooses a Book, then easily order a Book item and it to the shopping cart. Then a user can view which items order by. Then from the list order product, a user can remove one or more product and finally pay the bill. For paying the bill a user should sign up or sign in this site. So a student can easily purchase a product via the internet.

1.2 Objectives of the Project

This project mainly working on students benefit when a student wants to get the first Book item very firstly via the internet it's very helpful. Because a student can easily place an order in this site by his choice. It's mainly working on user's preferences. As a daffodilian can easily give an order on this website and get a first Book easily. A student can make his self-employment by this project. A good commercial benefit has in this project when it explores over the internet.

As a dynamic website, it gives the priority to a user and can take place and remove order by his choice. The billing system also working on user's alternative mailing platform. Overall it can fulfil all the criteria to make a good Ecommerce website and it gives the best option for choosing a product on the internet. So for the Daffodilian it can make an impact very goodly and make a good platform on the online Book ordering system. So finally this project is very helpful for all DIU students and globally it also makes a good impact and that's the motto of the project.

1.3 Organization of the project

This project is an e-commerce base project mainly develop based on easy Book ordering system for the students. I think of the criteria the website mainly focusses on user satisfaction and how can easily purchase a product.

Chapter Two

Literature Review

When the web concept introduced to the world that time the web has a static platform. Then to build a web page used HTML to do this. The dynamic web concept come in 1993 since 25 years ago when the CGI (Common Gateway Interface) was introduced. After that Perl, python, ASP.NET was come to build the dynamic website. Today in a web application has content Management System platform where a people can easily build a dynamic application and User can interact with the website anytime. The Ecommerce concept was first introduced in 1971 in the seminar "the seminar acts of e-commerce". Day by day it was updated nowadays all big international company was run by the concept of e-commerce. Like Amazon.com, alibaba.com and all recognized international company follow the e-commerce concept.

A remaining challenge is that the definitions of website design elements often overlap. For example, several studies evaluated organization by how well a website incorporates cognitive architecture, logical and hierarchical structure, systematic information arrangement and categorization, meaningful headings and labels, and keywords. However, these features are also crucial in navigation design. Also, the implications of using distinct logos and icons go beyond graphical representation. Logos and icons also establish a unique brand/identity for the organization (purpose) and can serve as visual aids for navigation. Future studies are needed to develop distinct and objective measures to assess these elements and how they affect user engagement

Given the rapid increase in both mobile technology and social media use, it is surprising that no studies mentioned cross-platform compatibility and social media integration. In 2013, 34% of cellphone owners primarily use their cellphones to access the Internet, and this number continues to grow. With the rise of different mobile devices, users are also diversifying their web browser use. Internet Explorer (IE) was once the leading web

browser. However, in recent years, Firefox, Safari, and Chrome have gained significant traction. Website designers and researchers must be mindful of different platforms and browsers to minimize the risk of losing users due to compatibility issues. Besides, roughly 74% of American Internet users use some form of social media, and social media has emerged as an effective platform for organizations to target and interact with users. Integrating social media into website design may increase user engagement by facilitating participation and interactivity.

There are several limitations to the current review. First, due to a large number of studies published in this area and due to this study being exploratory, we selected from the first 100 research publications on Google Scholar search results. Future studies may benefit from defining design to a specific topic, set of years, or another area to limit the number of search results. Second, we did not quantitatively evaluate the effectiveness of these website design elements. Additional research can help to better quantify these elements.

It should also be noted that different disciplines and industries have different objectives in designing websites and should thus prioritize different website design elements. For example, online businesses and marketers seek to design websites that optimize brand loyalty, purchase, and profit. Others, such as academic researchers or healthcare providers, are more likely to prioritize privacy/confidentiality, and content accuracy in building websites. Ultimately, we advise website designers and researchers to consider the design elements delineated in this review, along with their unique needs, when developing user engagement strategies.

Chapter Three
Theory

3.1 Overall Description

The theory is the most important for any project or any report in this chapter we discuss code details, website page information and also discuss flowchart and diagrams.

3.1.1. Description
- ➔ A user can view the available Book products.
- ➔ A member can purchase product via online by doing order.
- ➔ To get a product from online a user must sign in in the website.
- ➔ This website makes Book ordering system very easier.

3.1.2. Code details
- ➔ Use Mongo DB Non SQL database for data Management.
- ➔ For Back-End implementation use Node JS library and Express generator framework.
- ➔ In the Front-End implementation, Use JavaScript, Bootstrap and CSS.

3.1.3. Website page Information
1. Home page
2. About page
3. Order page
4. Sign up page
5. Sign In page
6. Product Detail page
7. Checkout page
8. Pay Bill page

3.1.4. Project Flowchart

Project flowchart shows how to work this project. This is the data flow of this project
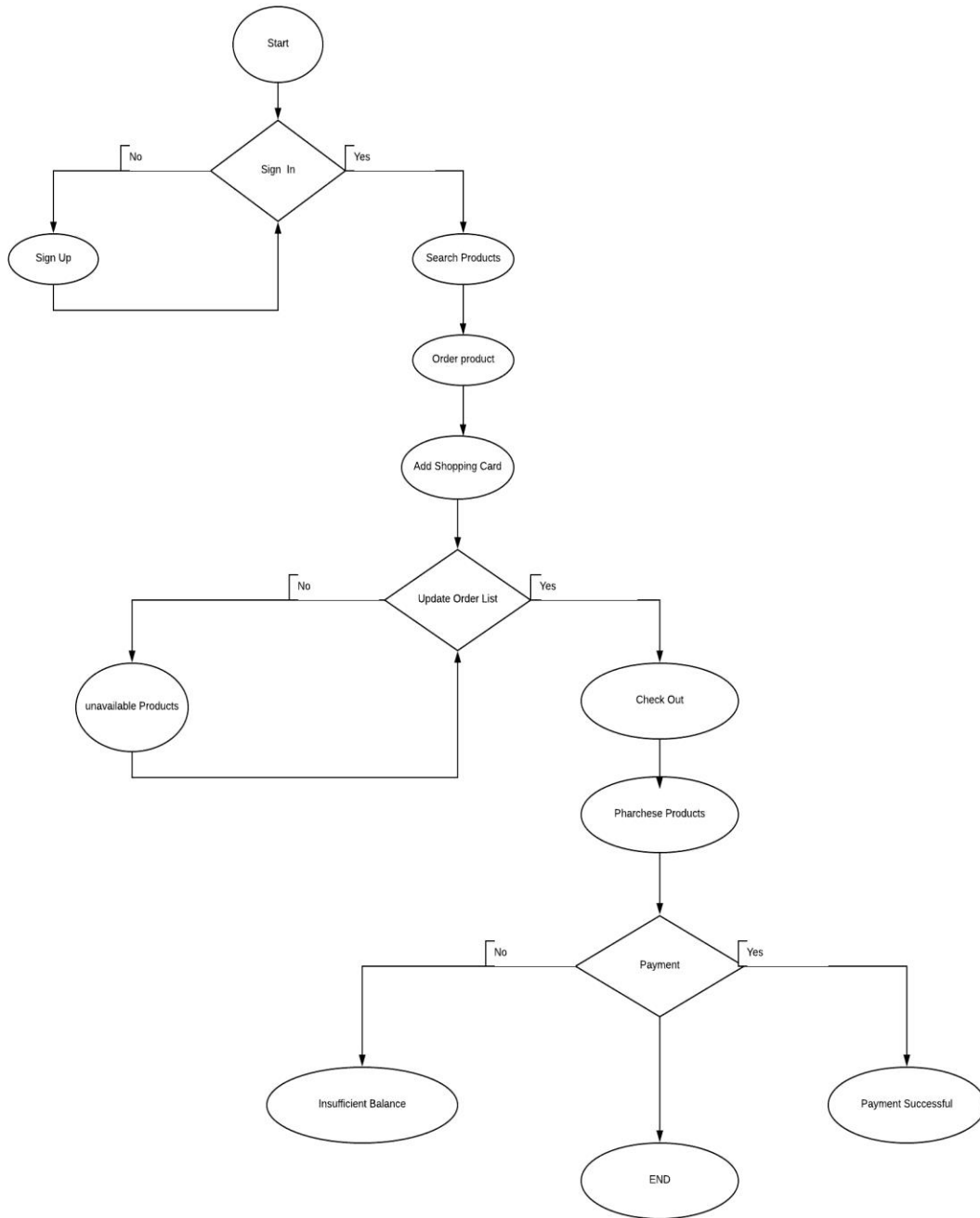
Figure 3.1.4.1: DIU Book Shop Project Flow Chart

3.1.5. ER Diagram

Entity relationship diagrams (ER) are widely used in database design and systems analysis to represent systems or problem domains. This is a typical ERD example for online bookstore. It contains entities like author, book, publisher, warehouse, customer, etc.
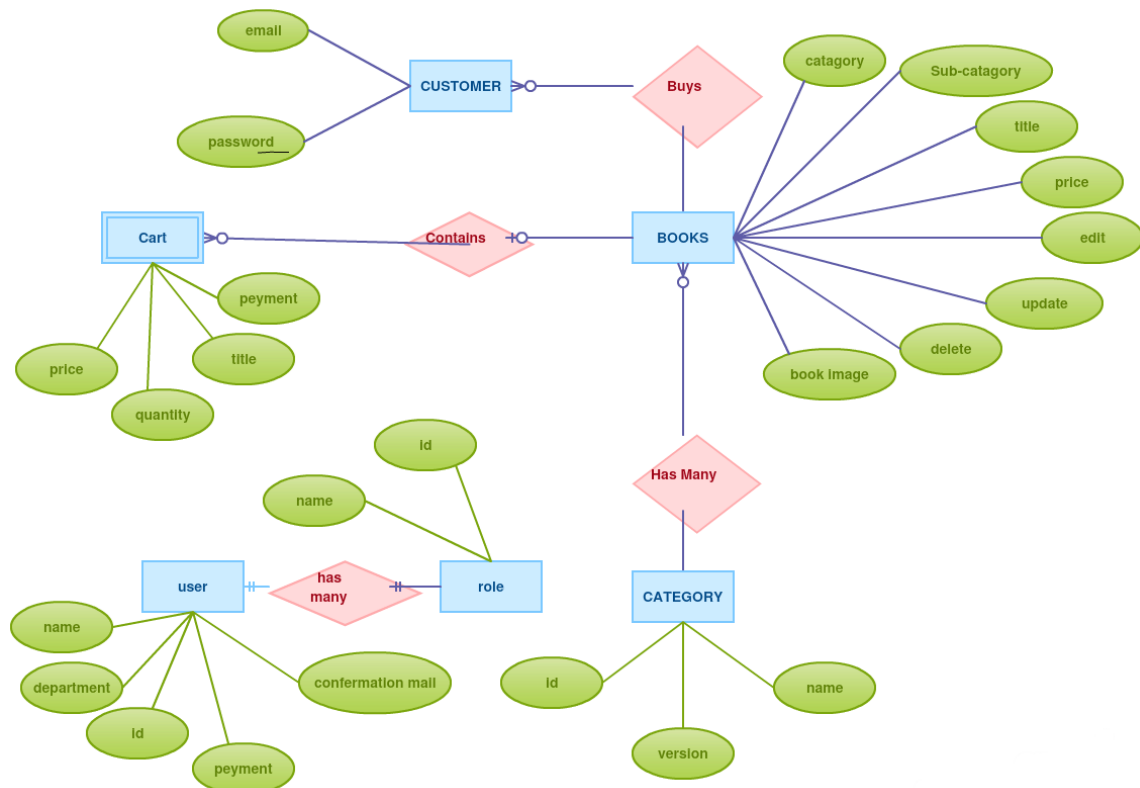
Figure 3.1.5.1: ER Diagram

3.1.6. Collaboration Diagram

A collaboration diagram displays object interactions organized around

objects and their links one to another.
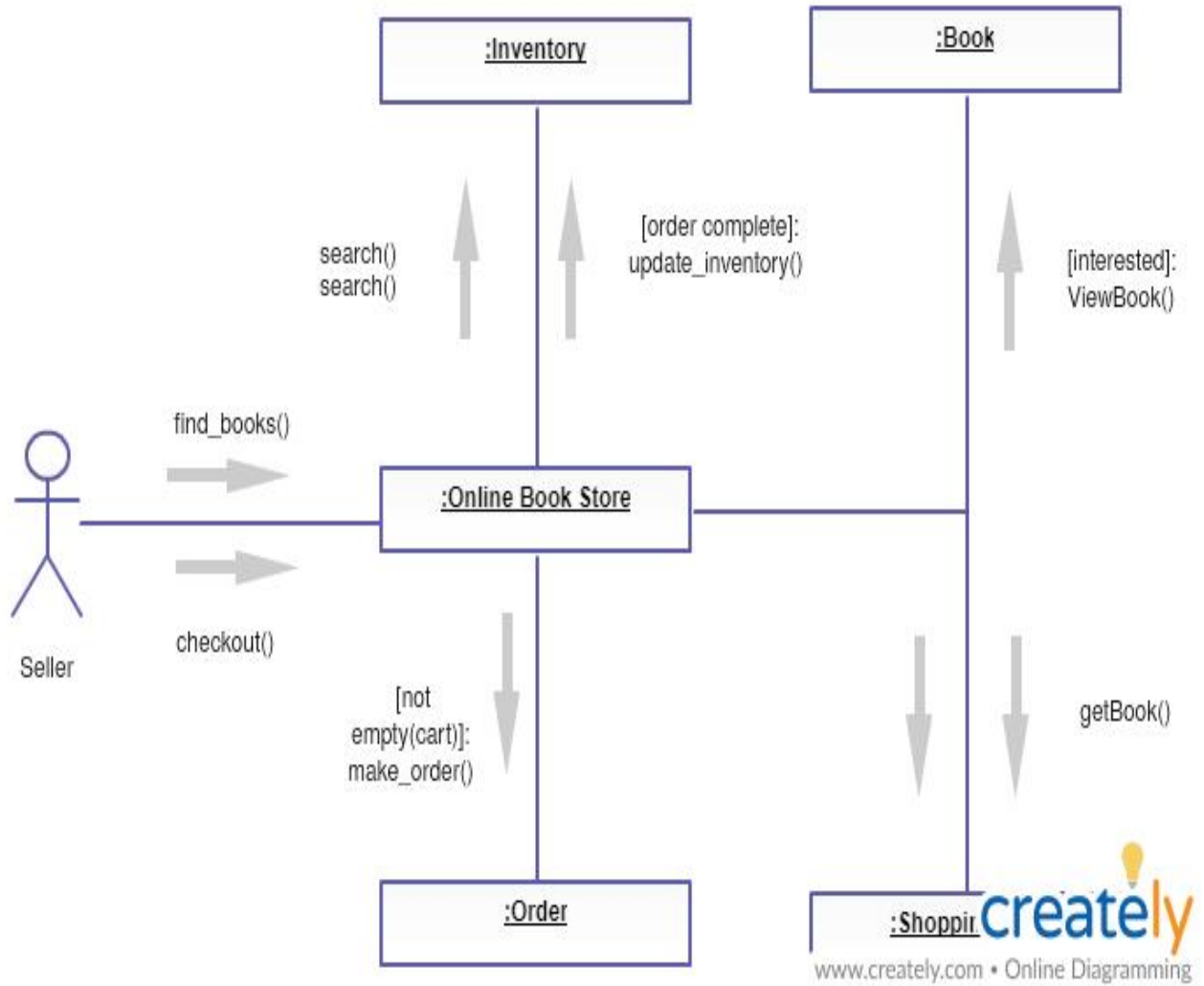
Figure 3.1.6.1: Collaboration Diagram (UML)

3.2. DIU Book Shop System
3.2.1. Home Page

Home page shows all the option in this website and by which procedure and user can interact with this. As an online first Book shopping in has some special features shown in this page.
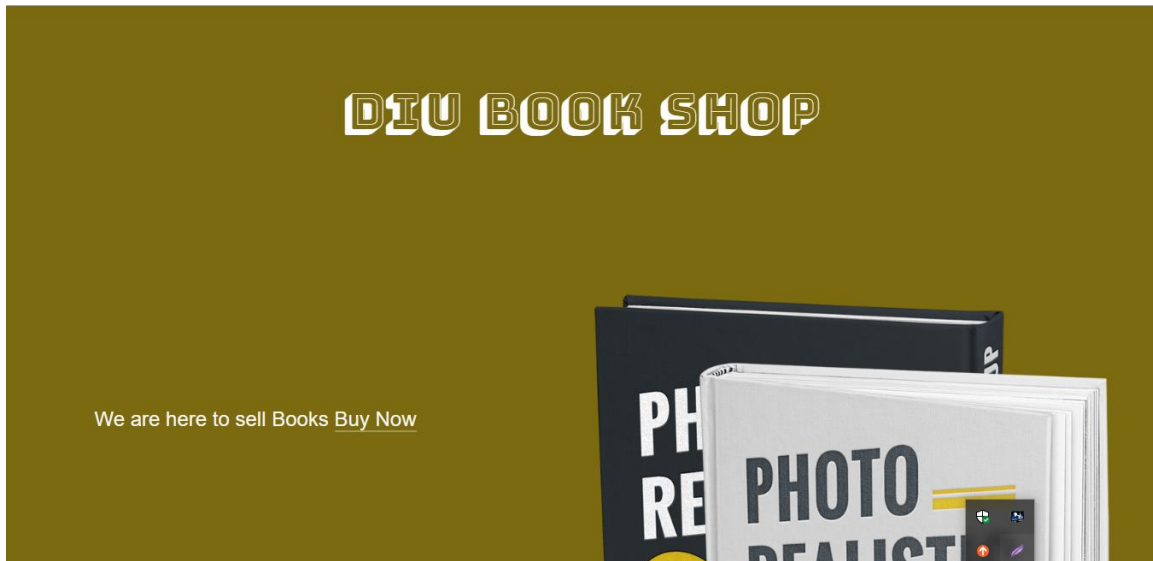
Figure3.2.1.1: Home page

3.2.2. Product Category

Product category mainly shows the list of category of Book and also refers to search the user demandable category from the list of items.

Figure3.2.2.1: Product Category

3.2.3 Sub Category

Product Sub category mainly show the list of particularly category of Book and also refers to search the user demandable category from the list of items.

Figure3.2.3.1: Sub Category

3.2.4 Product List

Product list mainly shows the list of items and also refers to search the user demandable products from the list of items. Every product has own features and prize on this page.

Figure3.2.4.1: Product List

3.2.5 Order List

Order list mainly show the list of orders and also refers to show the users demandable products from the list of orders. Every order has own features and prize in this page. Here also have an option where user can cancel the order by click delete option and also user can update their order.
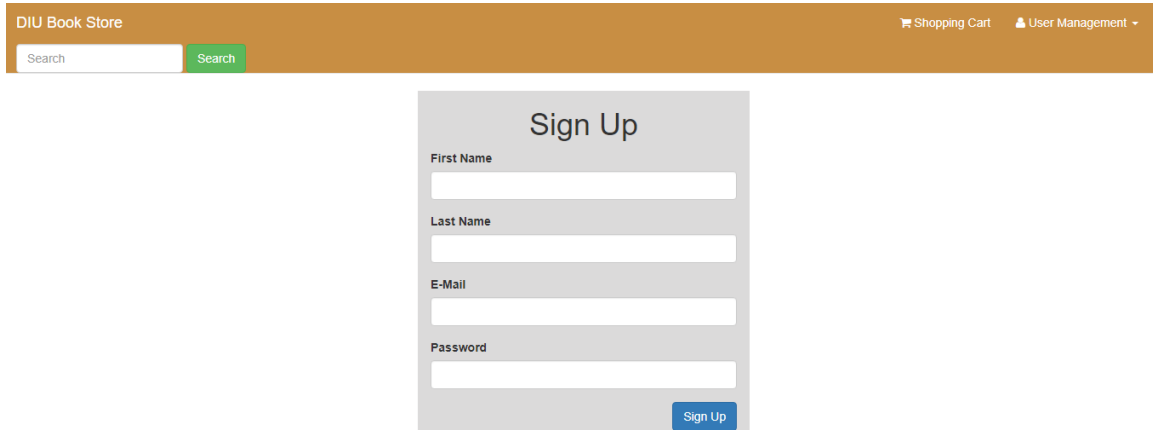
Order List Show the list of customers that's want

Figure 3.2.5.1: Order List Page

3.2.6 Sign Up page

This page mainly uses for user management. Here from user can using sign up in this page by using E-mail & different password if they want.

Figure3.2.6.1: Sign up page

3.2.7 Sign in page:

This page also uses for user Management. After sign up user who are sign up already here they can sign in by using their E-mail and password.

Figur3.2.7.1: Sign in page

3.2.8 Payment Method

The Payment Request API makes it easy for a browser to pass known credit card details to a merchant. The API can also accept payments through apps which process payments any way they wish e-money, bank transfers, bKash, etc. To buy product user input valid data.

Figure3.2.8.1: Bill Payment Form

3.3 System Requirements
3.3.1. Use case Diagram
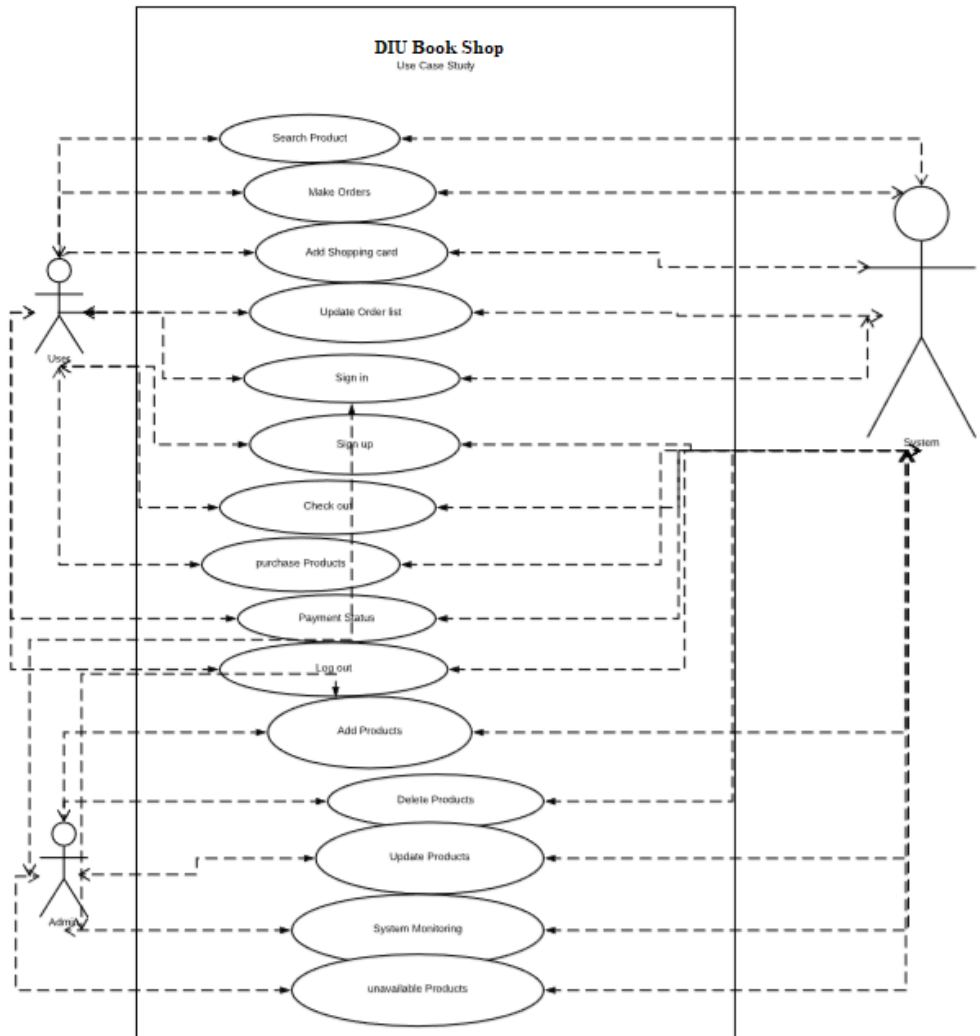
Figure3.3.1.1: Use Case Diagram of DIU

3.4 Book Shop

3.4.1 Database Management:
Data management is essential for storing and retrieving data from database. For this project, try to make a good database management by using Mongo DB online database.

3.4.2. Database Illustration
The overall database structured created by:

User: A user has unique id, has a name when user want to add to the database.

Admin: An admin has unique id, has a name when Admin add to the database.

Product: product has id, name, image and product prize in the database and show this to the website.

Order: Order has id, item and total value of order prize in the database.

3.4.3. Database Objects

User: id, password

Admin: id, password

Product: product id, product name, image, product prize

Order: order id, order item, value

DIU Book Store   🛒 Shopping Cart   👤 User Management ▾

Search   [Search]

Learn Python

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop

$300   [Add to Shopping Cart]

C

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop

$100   [Add to Shopping Cart]

CLR via C#

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop

$200   [Add to Shopping Cart]

Figure3.4.3.1: product Details

Chapter Four
Discussion & Conclusion

4.1 Discussion

DIU Book Shop is an e-commerce based website. It has many commercial benefits and a user can easily be working with this website. This website can allow the user to find a product very easily because the list of products shows on this website by the list of views so easily can decide which items user want to place the order. It has many commercial benefits for a university canteen and for a student who wants to take Book very easily via the internet. But on the other hand, it has some difficulty like It can't priority which product user's best choice. This website can't specify by which process deliver the ship of the order of products to the students. A student can't first time check how easily can buy a Book item so the process can't dynamically be working on a payment system. But overall the project working nicely on user preference and the website places a good Ecommerce website.

4.2 Conclusion
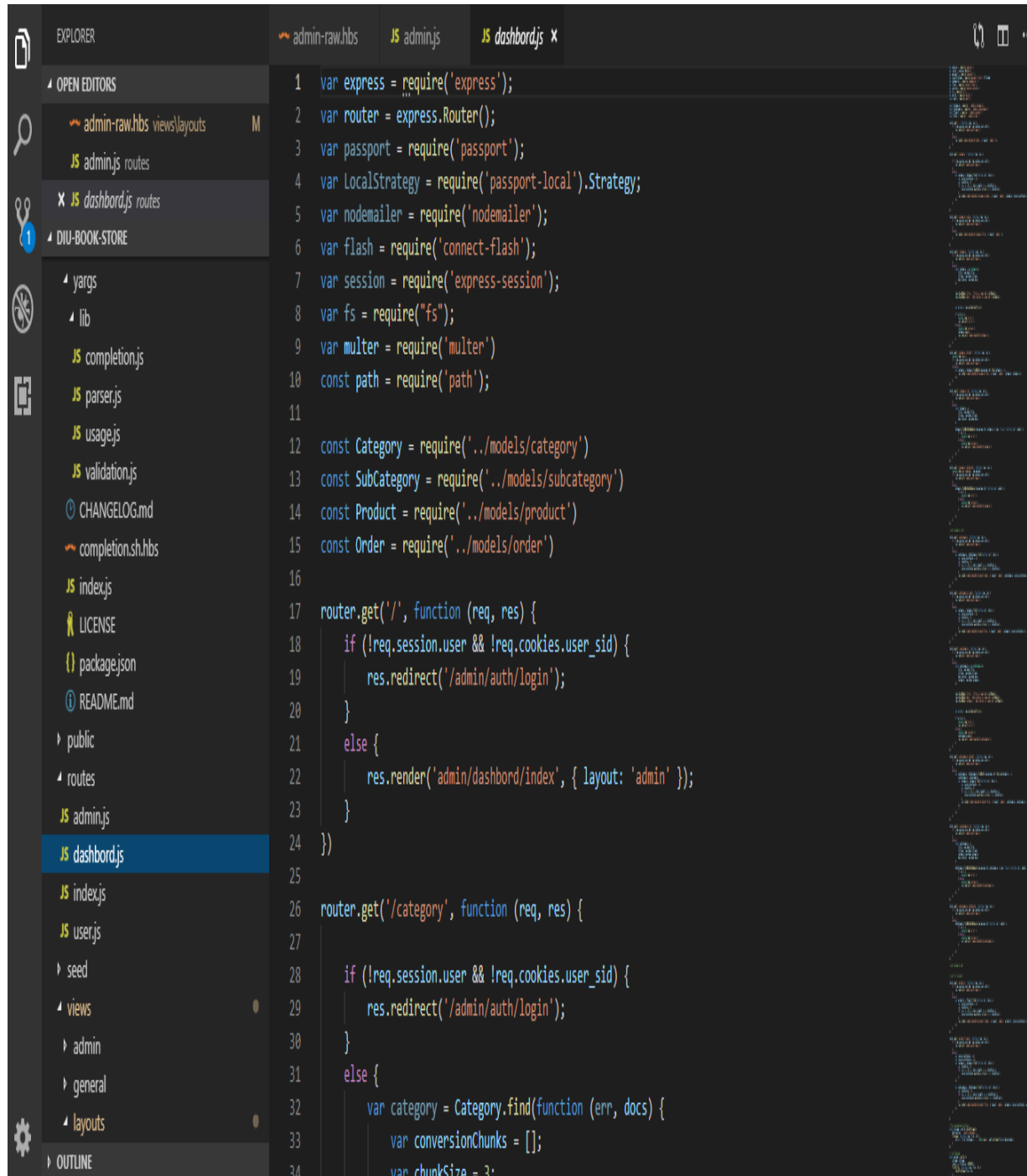
This project gives the all types of facility that a user need to satisfy. By this project, a student can order a product easily from this site. The website gives all this by it handles all customers demand and user-friendliness. Finally a list of view. A student nicely works with this website for his desire prospectus. As a dynamic website, this gives all the facility that should provide for customer demand. So all the evaluation I see if I add some extra features in this website it will become an excellent website that a user wants. Future work of this website is to promote this website globally to make a demand full website in this country and also the world. I try to add some additional features that the project will be a good and efficient website around the circumstance of e-commerce based websites. In future, this site can make a platform that a user can very easily interact with this from all other e-commerce websites. Because try to develop a completely dynamic website which can work on all user preferences.

References

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[2] https://angularjs.org/

[3] ttps://expressjs.com/

[4] https://aip.scitation.org/doi/abs/10.1063/1.3510540

[5] https://mdbootstrap.com/

[6] https://www.w3schools.com/js/

[7] www.Wikipedia.org

[8] www.google.com

Appendix

Basic Code of DIU Book Shop


```javascript
var express = require('express');
var router = express.Router();
var passport = require('passport');
var LocalStrategy = require('passport-local').Strategy;
var nodemailer = require('nodemailer');
var flash = require('connect-flash');
var session = require('express-session');
var fs = require("fs");
var multer = require('multer')
const path = require('path');

const Category = require('../models/category')
const SubCategory = require('../models/subcategory')
const Product = require('../models/product')
const Order = require('../models/order')

router.get('/', function (req, res) {
    if (!req.session.user && !req.cookies.user_sid) {
        res.redirect('/admin/auth/login');
    }
    else {
        res.render('admin/dashbord/index', { layout: 'admin' });
    }
})

router.get('/category', function (req, res) {

    if (!req.session.user && !req.cookies.user_sid) {
        res.redirect('/admin/auth/login');
    }
    else {
        var category = Category.find(function (err, docs) {
            var conversionChunks = [];
            var chunkSize = 3;
```

File   Edit   Selection   View   Go   Debug   Terminal   Help

EXPLORER

⊿ OPEN EDITORS
  ✕ ⌁ admin-raw.hbs views\layouts   M
⊿ DIU-BOOK-STORE
  ⊿ yargs
    › lib
    ⊙ CHANGELOG.md
    ⌁ completion.sh.hbs
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    ⯑ LICENSE
    {} package.json
    ⓘ README.md
  › public
  ⊿ routes
    JS admin.js
    JS dashbord.js
    JS index.js
    JS user.js
  › seed
  ⊿ views
    › admin
    › general
    ⊿ layouts
      ⌁ admin-raw.hbs   M
      ⌁ admin.handlebars
      ⌁ admin.hbs
      ⌁ adminraw.hbs
      ⌁ generallayouts.hbs
      ⌁ layout.hbs
  › OUTLINE

```hbs
1   <!DOCTYPE html>
2   <html lang="en">
3
4   <head>
5     <meta charset="utf-8">
6     <meta http-equiv="X-UA-Compatible" content="IE=edge">
7     <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
8     <meta name="description" content="CoreUI - Open Source Bootstrap Admin Template">
9     <meta name="author" content="Łukasz Holeczek">
10    <meta name="keyword" content="Bootstrap,Admin,Template,Open,Source,AngularJS,Angular,Angular2,Angular 2,
11    <link rel="shortcut icon" href="img/favicon.png">
12    <title>Diu Book Shop</title>
13
14    <!-- Main styles for this application -->
15    <link href="/css/admin.css" rel="stylesheet">
16    <link rel='stylesheet' href='/stylesheets/admin.css'/>
17      <link href="/css/admin.css" rel="stylesheet">
18    <!-- Styles required by this views -->
19
20  </head>
21
22  <!-- BODY options, add following classes to body to change options
23  // Header options
24  1. '.header-fixed'              - Fixed Header
25  // Brand options
26  1. '.brand-minimized'       - Minimized brand (Only symbol)
27  // Sidebar options
28  1. '.sidebar-fixed'              - Fixed Sidebar
29  2. '.sidebar-hidden'            - Hidden Sidebar
30  3. '.sidebar-off-canvas'       - Off Canvas Sidebar
31  4. '.sidebar-minimized'         - Minimized Sidebar (Only icons)
32  5. '.sidebar-compact'           - Compact Sidebar
33  // Aside options
34  1. '.aside-menu-fixed'         - Fixed Aside Menu
```

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```json
{
  "name": "shopping-cart",
  "version": "0.0.0",
  "private": true,
  "scripts": {
    "start": "node ./bin/www"
  },
  "dependencies": {
    "bcrypt-nodejs": "0.0.3",
    "bcryptjs": "^2.4.3",
    "body-parser": "~1.13.2",
    "connect-flash": "^0.1.1",
    "connect-mongo": "^2.0.0",
    "cookie-parser": "~1.3.5",
    "csurf": "^1.9.0",
    "debug": "~2.2.0",
    "express": "~4.13.1",
    "express-handlebars": "^3.0.0",
    "express-session": "^1.15.6",
    "express-validator": "^4.3.0",
    "hbs": "~3.1.0",
    "mongoose": "^4.13.7",
    "morgan": "~1.6.1",
    "multer": "^1.4.1",
    "nodemailer": "^6.0.0",
    "passport": "^0.4.0",
    "passport-local": "^1.0.0",
    "serve-favicon": "~2.3.0",
    "stripe": "^5.4.0"
  }
}
```