### Tribhuvan University



**An Internship Report**

**On**

**Ecom Website**

**As**

**Django Backend Developer**

**At**

**Broadway Infosys**

**Submitted to**

**Department of Computer Applications**

**Bhairahawa Multiple Campus**

*In partial fulfillment of the requirement for the Bachelor Degree in*

*Computer Applications.*

**Submitted by**

**Bijay Tharu(Roll No 520190)**

**Bhairahawa Multiple Campus**

**Rupandehi, Nepal**

**Dec, 2022**

### SUPERVISOR’S RECOMMENDATION

I hereby recommend that this internship report on **Ecom Website** prepared under my supervision by **Bijay Tharu [TU RegNo. 6-2-52-140-2018],** is accepted as fulfilling in partial requirements for the degree of Bachelor of Computer Application. In my best knowledge, this is an original work in computer science by him/her.

Date: 2079/05/22

…………………………..

Er. Aayush Adhikari

Bhairahawa Multiple Campus

(Internship Supervisor)

### CERTIFICATION OF APPROVAL

The undersigned certify that they have read and recommended to the Department of Computer Science for acceptance, an internship report submitted by **Bijay Tharu (**TU Roll No. **6-2-52-140-2018**) in partial fulfillment for the degree of Bachelor of Computer Application.

|  |  |
| --- | --- |
| ………………………  Er. Sunil Kumar Shah  **Co-ordinator/H0D**  Bhairahawa Multiple Campus | ……………………………  Mr.Suresh Raj Sharma  **Supervisor**  Bhairahawa Multiple Campus |
| …………………………..  **Internal Examiner**  Bhairahawa Multiple Campus | ….…………………..  **External Examiner**  FOHSS, Tribhuvan University |

### ACKNOWLEDGEMENT

It gives me enormous pleasure to thank a large number of individuals for their pleasant cooperation and encouragement which has contributed directly or indirectly in preparing this report. First of all, I would like to express my gratitude to **Broadway Infosys.** for proving opportunity of internship and data for preparation of this report. I am grateful to my internship mentor **Er.Aayush Adhikari** for his support and guidance and all the other respected staffs of Doers Soft Pvt. Ltd. for giving me lot of time and sharing their working experiences with me. Their guidance showed me a way not only to understand the office culture but also how to deal with unexpected situations that might occur in office work.

A very special gratitude goes to my Supervisor, **Mr.Suresh Raj Sharma** who has been a constant support with his guidance and kind supervision given to me throughout the course which shaped the present work as its show.

I would like to express my sincere thanks to all the members of Department of Humanities and Social Science for the whole hearted support. I would like to extend our sincere gratitude to the Co-ordinator **Er.Sunil Kumar Shah**Sir for approving this internship project, **Bhairahawa Multiple Campus**, for their kind and co-operative support, valuable time and guidance as well as their suggestions. I am very thankful to my friends for their help, co-operation and encouragement throughout the project. Last, but not the least, my parents are also an important inspiration for me. So, with due regards, I express my gratitude to them.

**Bijay Tharu**

TU Exam roll no: 520211

7thSemester

BCA

Bhairahawa Multiple Campus

### ABSTRACT

As an opportunity to learn and gain experience this internship program is seen very fruitful for students. During the internship at the Broadway Infosys, I was assigned to several tasks by my supervisors. I was given simple tasks at first and complexity of tasks increased according to time. I worked under the supervision of Er.Aayush Adhikari who was senior Full stack Developer of the company.

I was given opportunity to work on Ecom Website project which is an online learning platform for students. There was a team of UI/UX designers, Backend developers, Frontend developers and Project Manager Content Creator. Tools that were used for the development of this web application project include Visual studio, Adobe xd, GitHub. The main objective of the internship was to learn by working in practical environment and to apply knowledge acquired during the studies in real world scenario in order to tackle the problems using the knowledge and skill learned during academic process. The main objective of the internship project was to create a user-friendly learning app which includes models such as Contact, User, Course etc. It is a complete system with authorization, authentication.

**Keywords:** Django, Internship, Broadway Infosys, Ecom Website.

### Table of Content

ACKNOWLEDGEMENT..............................................................................................4

ABSTRACT....................................................................................................................5

CHAPTER ONE: INTRODUCTION...........................................................................10

1. 1.1 Introduction to Internship...........................................................10
2. 1.2 Problem Statement.....................................................................10
3. 1.3 Objective..................................................................................11

1.3.1 Objectives of Internship.................................................................................................11

1.3.2 Objectives of Project.....................................................................................................11

1. 1.4 Scope and Limitations................................................................12

1.4.1 Scope...............................................................................................................................12

1.4.2 Limitations.......................................................................................................................12

1. 1.5 Report Organization...................................................................12

CHAPTER 2: ORGANIZATIONAL DETAIL AND LITERATURE REVIEW..........14

1. 2.1 Introduction to organization.......................................................14
2. 1.4 Organizational Hierarchy...........................................................15
3. 2.3 Working Domains of Organization............................................16
4. 2.4 Description of Intern Department..............................................18
5. 2.5 Literature Review.......................................................................19

CHAPTER 3: INTERNSHIP ACTIVITIES.................................................................20

1. 3.1 Roles and Responsibilities.........................................................20
2. 3.2 Weekly Log................................................................................20
3. 3.3 Description of Project.................................................................24

3.3.1 System Development Model...........................................................................................24

3.3.2 Development Tool and Language used...........................................................................26

1. 3.4 Activities/Task Performed..........................................................27

3.4.1 Functional and Non-functional Requirements................................................................27

3.4.2 System Analysis..............................................................................................................29

CHAPTER 4: CONCLUSION AND LEARNING OUTCOME..................................32

1. 4.1 Conclusion..................................................................................32
2. 4.2 Learning outcomes.....................................................................32
3. References........................................................................................33

### List of Table

TABLE 1: ORGANIZATION CONTACT DETAILS..................................................................................15

TABLE 2: INTERNSHIP DETAILS........................................................................................................18

TABLE 3: WEEKLY LOG (WEEK 1)...................................................................................................20

TABLE 4: WEEKLY LOG (WEEK 2)...................................................................................................21

TABLE 5: WEEKLY LOG (WEEK 3)...................................................................................................21

TABLE 6: WEEKLY LOG (WEEK 4)...................................................................................................21

TABLE 7: WEEKLY LOG (WEEK 5)...................................................................................................22

TABLE 8: WEEKLY LOG (WEEK 6)...................................................................................................22

TABLE 9: WEEKLY LOG (WEEK 7)...................................................................................................23

TABLE 10: WEEKLY LOG (WEEK 8).................................................................................................23

TABLE 11: WEEKLY LOG (WEEK 9).................................................................................................23

TABLE 12: WEEKLY LOG (WEEK 10)...............................................................................................24

[**List of Figure**FIGURE 1: DOERS SOFT LOGO 14](#_Toc25021)

[FIGURE 2: ORGANIZATIONAL HIERARCHY 15](#_Toc25022)

[FIGURE 3: USE CASE DIAGRAM 28](#_Toc25023)

**List of Abbreviation**

### CHAPTER ONE: INTRODUCTION

#### 1.1 Introduction to Internship

The internship is six credit (minimum ten weeks/180 hour long) as a part of the course requirement included in ‘Bachelors of Computer Application’ a course affiliated by Tribhuvan University. The internship experience is expected to enable the students to assist in the resolution of complex problem. Main goal is to assist students in focusing their interests, thus aiding in their professional carrier. It gives students the opportunity to re-examine their career objectives and explore the variety of opportunities in the field of Humanities and Social Science.

The broad objectives of internship are as follows:

* To test the interest in particular field before permanent commitment are made.
* To develop skills in the application of theory to practical work situations.
* To test the aptitude for a particular career.
* To know the value of time management and interpersonal skills.
* To develop skills and techniques directly applicable to the careers.
* To acquire in depth knowledge of the formal functional activities of a participating organization.

With the advancement of information and technology, replacing conventional or paper based system with computer-based information system, it becomes a vital and integral part of each and every organization. During the internship at the Broadway Infosys, I was assigned to several tasks by my supervisor. I worked as a backend developer during my internship period. As we were working on learning app called Ecom Website, I was asked to work with the partner module. The project required high communication with supervisor as I am doing daily. The project was success all about of team work.

#### 1.2 Problem Statement

With the advancement of information and technology, replacing conventional or paper- based system with computer-based information system, it becomes a vital and integral part of each and every organization. In today's world, securing that crucial graduate job offer no longer depends solely on having a good degree. Employers rely heavily on resumes that show meaningful work history in today's labor market, whether it comes from paid employment, volunteer work, or an internship at a business. When it comes to developing a successful career, relevant work experience is now just as important as your educational background and test scores. As a result, internships have emerged as a crucial tool for individuals looking to differentiate themselves. This provides an additional opportunity for networking when applying for jobs after graduation. Internships initially influence how people approach their profession.

#### 1.3 Objective

The internship program was done to fulfill the academic requirement of BCA 7th Semester. An internship provides a variety of benefits for the young workers who want to broaden their chances for landing in a job and jump-starting their careers. The main objectives of the internship project were to understand how the application works in real time.

The following are the internship objectives that were to be achieved:

##### 1.3.1 Objectives of Internship

The objectives of internship are as follows:

* To be able to work in team, maintain good public relation and develop strategic problem-solving skills.
* To examine practical implementation of things that is learned in the classroom.
* To learn about the workplace culture and gain much needed work experience.

##### 1.3.2 Objectives of Project

With the development of this project, we aim to meet the following objectives:

* To assist students in focusing their interests, thus aiding in their professional career.
* To give learners an opportunity to be a leader by reader.

#### 1.4 Scope and Limitations

##### 1.4.1 Scope

An internship provides an opportunity to develop skills and experience in a particular field or industry, and can help explore the different roles within the field so one can figure out which one they would like to pursue long term. Internships help improve your resume, get a taste of the working world through internships, and network with people who can advance your career. As for my internship, I was involved in developing a learning website. Due to the huge global internet user population, the potential for website is always growing. People are devoting more time to using learning websites to online video tutorial on different topics. Any conventional learner who wishes to use the internet to expand their knowledge is welcome to participate in this project.

##### 1.4.2 Limitations

Some drawbacks faced during internship are listed below:

* It was challenging to balance internship work and college at the same time.
* The internship required just as much work as paid positions even though it wasn't compensated.
* It was challenging to locate a company that operates in my selected field.
* Not all facets of the organization's operations can be disclosed due to restrictions imposed by the privacy regulations of the organization.

#### 1.5 Report Organization

**Chapter1:**

Introduction of the Project, Problem Statement, Objectives, Scope and limitation

**Chapter2:**

Introduction to organizations, Organizational hierarchy, working domain of the Organizations, Description of the intern Department, Literature review

**Chapter3:**

Roles And Responsibilities, Weekly log, Description of the Project Involved during Internship, Tasks/Activities such as Requirement, system design, implementation of the project that indicates how the system is implemented what tools, platforms have been used. Testing clarifies the system workflow.

**Chapter4:**

Conclusion marks an end to the document by summing up the entire project and also opening the door further for research in improving the developed system. The lesson learnt is also included in this chapter.

### CHAPTER 2: ORGANIZATIONAL DETAIL AND LITERATURE REVIEW

#### 2.1 Introduction to organization

Broadway Infosys Nepal is one of the best inclusive computer training institutes in Kathmandu, Nepal. Established in 2008, our professional IT Training and Development center has been employing experts in this field to impact professional education to trainees.

We offer well-structured and complete professional training in various Programming Languages, Graphics, UI/UX &Multimedia, Web Designing and Development, Quality Assurance, Architectural Designs as well as Soft Skills training that are based upon the current recruitment needs in the IT market. To Summarize, Broadway Infosys is a complete learning institute that not only provide training on various IT course but also prepares students to smartly handle the real working environment.



***Figure 1: Broadway Infosys logo***

**Broadway Infosys**

Address: Shriganesh Marg, Subidhanagar, tinkune, Kathmandu, Nepal

Contact: 01-4117578 / 4111849 / 9841002000 / 9808724535

Email: broadwayinfosys@gmail.com

Website: <https://www.broadwayinfosys.com>

##### Table 1: Organization Contact Details

Organization name:

Broadway Infosys

Head Office:

Shriganesh Marg, Subidhanagar, tinkune, Kathmandu, Nepal

Contact:

01-4117578 / 4111849 / 9841002000 / 9808724535

Email:

broadwayinfosys@gmail.com

Website:

www.broadwayinfosys.com

Facebook:

https://www.facebook.com/BroadwayInfo/

[t](https://www.facebook.com/search/top?q=doers%20soft)

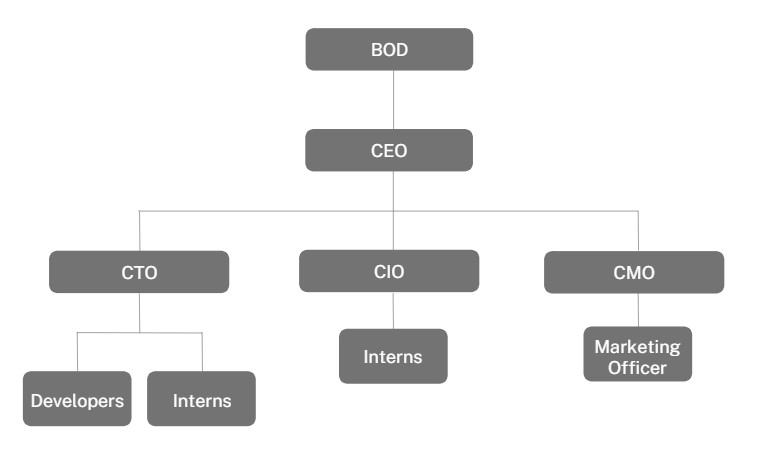
Opening hours:

6

AM to 5 PM

# 2.2 Organizational Hierarchy

Broadway Infosys comprises of an administrative team along with interns, junior and senior programmers and web designers.



***Figure 2: Organizational Hierarchy***

The managing director is in charge of overseeing the company's operations to ensure that its goals are attained successfully and efficiently. Three departments make up the company:

Marketing and sales: The choice of where to sell and how much to charge is made by the company's sales and marketing division.

Information division: Oversees the people, processes and technologies with a company’s IT organization/ companies to ensure they deliver outcomes that support the goal of the business.

Technology division: the department is responsibility of developing the system as a whole. This category includes requirement analysis and collecting, planning, system design and implementation, and system testing. It is further divided into:

* Design and development
* Research and development
* Testing group

#### 2.3 Working Domains of Organization

Broadway Infosys is a digital marketing and software development company delivering services at the forefront of an ongoing evolution in software development practice. It works in various fields such as graphics design, Web development, app development, digital marketing etc.

The areas of expertise of the organization are

##### Web Development

* Responsive and dynamic Website development
* Responsive and dynamic Ecommerce website development
* Responsive and dynamic Single page, multiple page WordPress website development.
* Responsive and dynamic Portfolio site development
* Responsive and dynamic News/ Blogs website development

##### SEO

* Basic of SEO
* Social media engagement
* Social media advertisement
* Content creation and management
* Build brand awareness and credibility

##### Graphics Designing

* UI and UX design of Websites
* UI and UX design of Web and Mobile Applications
* Logo Design
* Social media poster design
* Business card design
* Flyer’s design
* Booklets design
* Company Profile book design
* Brochure design
* Identity card design
* Banners design

##### Software Development

* School management software
* Billing software
* Software as per customer requirements

##### Registration & Web Hosting

* Domain register  Domain transfer
* Domain renewal  Window hosting
* VPS hosting
* Cpanel hosting
* AWS hosting

#### 2.4 Description of Intern Department

Broadway Infosys [CITATION Doe \l 1033 ] is one of the best growing companies in Kathmandu to provide internship in Kathmandu. It gives internship opportunities for Backend Developer, Frontend Developer, UI/UX, SEO. Here all the interns are provided with proper workspace and internet facilities. Also, each intern is assigned to a mentor who will help interns with their help. Work friendly environment is provided to all the interns.

The internship details are shown below:

**Table 2: Internship details**

**Office Hour**

6:00

am – 6:00 pm

**Working Hour**

7

Hours per day

**Working Days**

6

days a week

**Mentor**

Er.Aayush Adhikari

**Total Duration**

10 weeks

##### 2.5 Literature Review

Here is the project literature study for the ecommerce website I developed for my internship at Broadway Infosys.

We all know that the learning platform playing vital role to generate leaders from reader. According to [ CITATION Cyn16 \l 1033 ] Videos has become an important part of higher education. It is integrated as part of traditional courses, serves as a cornerstone of many blended courses, and is often the main information-delivery mechanism in online courses. Avra Robinson [CITATION edu23 \l 1033 ] mentioned that What better way for students to control the learning experience than to be able to watch or listen many times as needed? Working with students to harness the power of pausing and replaying instruction needs to be deliberate and intentional. Recent developments worldwide have imposed the use of e learning in the educational process and the online learning environments that have emerged have become a significant source of income for many universities [ CITATION Hin21 \l 1033 ].E-learning platforms are an integrated set of interactive services that are not restricted by time or place and are provided through the internet, with the necessary tools and materials for learners and those concerned with learning.

Video-based learning [ CITATION cov19 \l 1033 ]easily attracts any learner. A combination of speech, text and images makes it easier to get to the point much faster. This makes room for more content and extra conversation, all in less time. When pairing audio with text, it's easier for our brains to comprehend and remember a message.

### CHAPTER 3: INTERNSHIP ACTIVITIES

#### 3.1 Roles and Responsibilities

As an intern at Broadwy Infosys Pvt.Ltd, I was given certain responsibilities to carry out during my internship period. The responsibilities involved various tasks that were assigned by my mentor Er. Aayush Adhikari The main responsibilities that I carried out during my internship period in Django developer at Broadwy Infosys are as follows:  Study and analysis of existing system.

* Developing backend of the system.
* Work on some aspects of the frontend in the Django template structure.
* Work on the Backend part of the project using Django and Sqlite3 database.
* Work on the integration of the frontend and the backend of the system (Only the allocated parts).
* Performing tests for the functions and models that were created.

##### 3.2 Weekly Log

**Table 3: Weekly Log (Week 1)**

Day 1 Requirements analysis and general meeting.

Day 2 Analyze the requirements of the system.

Day 3 Research on the git and GitHub.

Day 4 Explore the commands and list the useful commands of Git.

Day 5 Create a basic project and push into GitHub

Day 6 Reflection and general meeting on the weeks work.

###### Table 4: Weekly Log (Week 2)

Day 7 Explored Python Programming Language, Django Framework and

learn its concepts.

Day 8 Learned about the MVT architecture of Django.

Day 9 Research on simple Django project.

Install Python.

Day 10 Created a simple Django Project with one app.

Day 11 Explored the URLS, VIEWS, and Templates of the Django Project.

Day 12 Learning how the Django architecture works based on the project created.

**Table 5: Weekly Log (Week 3)** Day 13 Client Meeting for the Ecom Website Website.

Day 14 Understanding the Database creation and architecture of the Ecom website

Day 15 Project structure learning and research

Day 16 Learning about Django Models

Day 17 Creating tables and admin section in Django project. Day 18 Working with Django imports and inbuilt functions

###### Table 6: Weekly Log (Week 4)

Day 19 Perform CRUD operations in python

Day 20 Perform CRUD operations in the Django project

Day 21 Learning about the make migrations and migrate functionalities in detail.

Day 22 Create simple database, models and run migrations in a Django project.

Day 23 Learning about the Django forms.

Working on the form rendering.

Day 24 Working on the view function for POST method and GET method of Django Forms.

**Table 7: Weekly Log (Week 5)** Day 25 Team meeting on the Ecom website.

Exploring the development works.

Day 26 Cloning the Ecom Project.

Exploring the project structure, functions, and models.

Day 27 Complete the local setup of the Ecom Project.

Run it in the localhost.

Day 28 Explore the concepts of Template in Django Project in detail.

Day 29 Rendering templates in the Ecom Projects in localhost.

Day 30 Overall reflection and team meeting on understanding and confusions on the project, and its functionality.

###### Table 8: Weekly Log (Week 6)

Day 31 Client meeting and team meeting

Explore the Ecom project requirements and current progress with the team.

Day 32 Worked on the frontend of the Courses page

Day 33 Worked on the responsiveness of the Courses page Fix some bugs in the page design.

Day 34 Integrated the frontend to the Django template and tested it by running the localhost.

Day 35 Worked on a separate Django project to learn about forms and their handling

Day 36 Tested the functionality of Django Admin panel

###### Table 9: Weekly Log (Week 7)

Day 37 Creating the models for courses and users of Ecom website

Day 38 Learning about various packages of Django (crispy forms, etc.)

Day 39 Testing crispy forms, datetimepicker, and bootstrap integration in the Django project.

Day 40 Designed the frontend of the about course page

Day 41 Worked in the frontend of the about course page and its responsiveness

Day 42 Integrated the frontend of the about course page and run in the Django localhost.

**Table 10: Weekly Log (Week 8)** Day 43 Team Meeting and reflection sessions

Day 44 Updating the design of the about course page

Day 45 Testing the working of the course addition and rendering in the Django admin.

Day 46 Working on the video size and responsiveness in the about course page.

Day 47 Learning about Vimeo and its ids to integrate that element to the model of the Ecom project.

Day 48 Final testing of the Ecom about course page and courses rendering.

###### Table 11: Weekly Log (Week 9)

Day 49 Team Meeting and reflection sessions

Day 50 Worked on the course main page of the Ecom project.

Day 51 Continued the work on the course main page of the Ecom Project.

Had to design the playlist for the videos.

Day 52 Worked on the responsiveness of the course main page of the Ecom Project.

Day 53 Integrated the template of course main page of the Ecom Project to the Django template.

Day 54 Analyzed the view and contexts to pass for the different pages in the Ecom Website project.

**Table 12: Weekly Log (Week 10)**

Day 55

Team Meeting and reflection sessions

Day 56

Worked on the Partners form

Day 57

Worked on the Teach form

Day 58

Updated the Courses Model.

Solved the issues in migrations.

Day 59

Created the views of course main page (cm), and the about course page

(

ac

)

Day 60

Tested the variables passed to the course main page and about course

page.

#### 3.3 Description of Project

Ecom Website project is a learning platform where a video tutorial is uploaded regarding various topics and also able to be a partner. In project has 3 main modules i.e Course, Teach and Partner. In the course webpage users may able to see only the intro video, for to watch all the videos or series of playlist uploaded in various topics, user need to join the fest. User also get to know about the author and message from author. User need to remain login for to access videos, whether Admin provides user id and password to the specific user. While talking about my part of work, I had contributed on the partner module. Here admin is able to upload videos by specifying various courses content, where in the author section it has author name, author title, message from author, about author, author image, author bio image, author's social media links. In the course section it has course title, slug, course picture, course details, course created by, author name, video id, hash id. And in the videos section it has video title, course select, video id, hash id, video description.

##### 3.3.1 System Development Model

**Agile Software Development Model:**

Organizations are experiencing enormous success in meeting the fast-paced change of customer needs by adopting the Agile Software Development methodology,[ CITATION Jav \l 1033 ] which offers an iterative approach to the design and development of software. The Agile approach embraces the constant changes that occur in the development of technology – allowing teams to break the lengthy requirements, build, and test phases down into smaller segments, ultimately delivering working software quickly and more frequently. We implemented this method as the requirements of our project were not spot on when we first gathered them and were subjected to change as we went ahead.

**The Agile Process:**

We need to perform multiple steps to built a software implementing agile method, which are described below:

1. **Requirements gathering:** In this phase, you must define the requirements. You should explain business opportunities and plan the time and effort needed to build the project. Based on this information, you can evaluate technical and economic feasibility.
2. **Design the requirements:** When you have identified the project, work with stakeholders to define requirements. You can use the user flow diagram or the high-level UML diagram to show the work of new features and show how it will apply to your existing system.
3. **Construction/ iteration:** When the team defines the requirements, the work begins. Designers and developers start working on their project, which aims to deploy a working product. The product will undergo various stages of improvement, so it includes simple, minimal functionality.
4. **Testing**: In this phase, the Quality Assurance team examines the product's performance and looks for the bug.
5. **Deployment:** In this phase, the team issues a product for the user's work environment.
6. **Feedback:** After releasing the product, the last step is feedback. In this, the team receives feedback about the product and works through the feedback.

##### 3.3.2 Development Tool and Language used

The following software tools and programming languages were used in projects' development:

**3.3.2.1 Frontend:**

###### 1. HTML

HTML is the standard markup language used to give structure. It is the building blocks of the web which is used to provide the content inside web application. We have used html to display the content and structure of the webpages in our project.

1. **CSS**

CSS is used to customize system appearance. It describes how HTML elements are to be displayed. We used CSS to enable the separation of presentation and content, including layouts, colors and fonts.

1. **JavaScript**

Java Script is used to design extremely responsive interfaces that enhance the user experience and give dynamic web pages. We used JavaScript for enabling interactive webpages in our project. We also used the JavaScript library, jQuery to further enhance our development speed and convenience.

1. **Bootstrap**

Bootstrap is open-source CSS framework for the creation of websites and web apps. It provides a collection of syntax for template designs. We used bootstrap framework for creating layouts as it is compatible with all modern browsers.

**3.3.2.2 Backend:**

**1. Django**

Django[ CITATION Dja \l 1033 ] is a high-level Python web framework that encourages rapid development and clean, pragmatic design. Built by experienced developers, it takes care of much of the hassle of web development, so you can focus on writing your app without needing to reinvent the wheel. It’s free and open source.

**3.3.2.3 Database:**

**1. SQLite**

Django in its 'out-of-the-box' state is set up to communicate with SQLite - a lightweight relational database included with the Python distribution. So, by default, Django automatically connects an SQLite database to your project.

**3.3.2.4 Software Tool**

1. Visual studio code is used for the text editor.
2. GitHub is used for code sharing.

**3.3.2.5 Documentation**

1. MS word is used for documentation process.
2. Draw.io is used to draw various diagrams like flowchart, use case and many more.

##### 3.4 Activities/Task Performed

###### 3.4.1 Functional and Non-functional Requirements

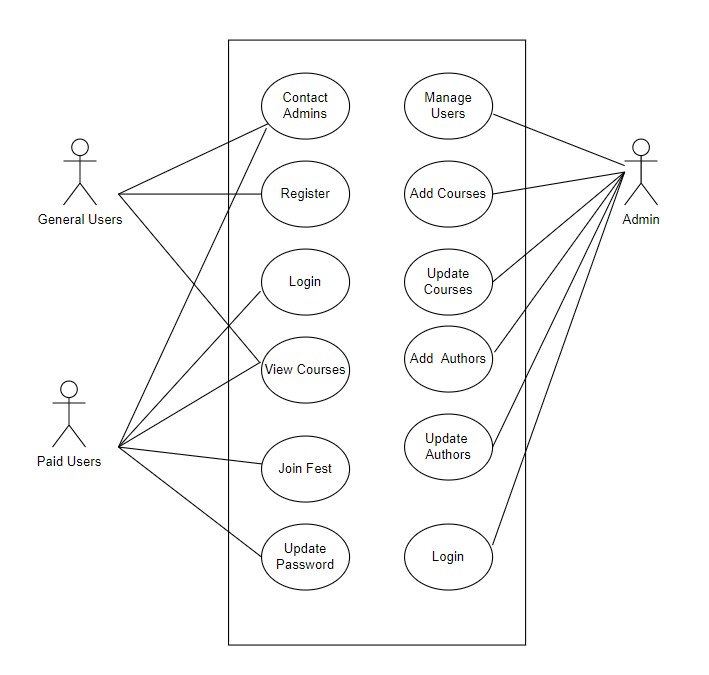
The creation of the system is heavily influenced by the requirements. The system's structure, functions, and operating limitations are established once the requirements are gathered. Due to the dynamic and contingent character of the needs, they are difficult to predict. One demand may be dependent on another, so changing lower requirements affects upper requirements and vice versa. Data required for requirement identification was collected from following sources:

* Brainstorming
* Document reviews
* Observation
* Interviews
* Questionnaire

3.4.1.1 Functional Requirement

Functional requirements[ CITATION gee \l 1033 ] define what services the system should deliver, how it should react to specific inputs, and how it should behave under specific situations. Functional requirements of our ecommerce system are:

* The system should enable the user to create an account and login to the system.
* The system should enable user to view courses and join the fest.
* The user should be able to contact admin.
* The admin can have access to login
* The admin should be able to add courses, update courses, add authors, update authors.
* The admin should easily add new data to database.
* The admin should manage and edit the website content.



# Figure 3: Use case Diagram

3.4.1.2 Non-functional Requirement

The characteristics and restrictions of the system are stated in non-functional requirements. Non-functional requirements of our ecommerce website are:

###### 1. Performance

The performance criterion offers a detailed description of how users interact with the website and includes measures of the performance of the website. If the user has a reliable internet connection, the response time is less than 10 seconds, and as for fault tolerance, the user is informed if the system loses internet connection or receives unusual input.

###### 2. Security

Communication between the user and the system is secure. Their databases can only be viewed by authenticated individuals. The user's account creation process is kept secure. Users cannot open two accounts with the same email address.

###### 3. Usability

The user interface is simple, user friendly and easy to use. If there is something incorrect, the user will be properly informed.

**4. Maintainability**

To enable testing of the various functions, a test environment has been created for the website. We have the ability to verify the system and update them in the event of a failure.

3.4.2 System Analysis

System Analysis is the process of studying an activity in order to define its goals or purposes and to discover operations and procedures for accomplishing them most efficiently. Analysis is defined as the procedure by which we break down an intellectual or substantial whole into parts. Synthesis is defined as the procedure by which we combine separate elements or components in order to form a coherent whole. Systems analysis researchers apply methodology to the analysis of systems involved to form an overall picture. System analysis is used in every field where there is a work of developing something.

3.4.2.1 Feasibility Study

Feasibility analysis helps to figure out if the project will be successful or not. The feasibility analysis should be carried out on various aspects like economic, technical, legal and operational.

1. **Technical Feasibility:**

Technical feasibility was to make sure that the new system would be able to work in the existing infrastructure and integrate with the existing database. We can strongly say that it is technically feasible, since there will not be much difficulty in getting required resources for the development and maintaining the website as well. All the resources needed for the development of the website as well as the maintenance of the same is available in the organization.

1. **Economic Feasibility:**

In order to analyze the economic feasibility of the system, Cost/Benefit analysis is to be carried out. This tool helps to determine the benefits that can be obtained from the system by comparing them with the various costs. If the benefits are higher than the cost then the system is considered to be economically feasible to be developed. Else we can easily understand that the system is not economically feasible and certain things are to be worked out and modified in order to acquire the desired economic feasibility. The economic feasibility of the project was based on budget provided by the cost estimation made by the project manager at Doers Soft.

1. **Legal Feasibility:**

Legal Feasibility analyzes and deals with various legal issues, contracts, policies, laws and violations that staffs are usually unknown about. It ensures if the application is legal to operate or not. Some systems may require license to operate. In such cases legal feasibility needs to be checked. This was done by going through all the legal requirements of the government of Nepal.

1. **Operational Feasibility:**

The Operational feasibility study helps in measuring the degree to which the system solves the problems and the extent to which it fulfills the requirements stated in the requirements document. It helps to understand the operation of the system before and after implementing new functionalities. It determines how well the system functions in the operational level. Therefore, it is operationally feasible. The operational feasibility of the project was evaluated by testing its server’s capacities and connection with the existing Database.

1. **Schedule Feasibility:**

All the required phases of development had to be finished within the given time frame. The analysis and design phase required about 3½ weeks of time. The effort was reduced due to clear requirement and database. The development process required only about one month because Django framework allows to develop application rapidly. Testing required further two weeks. Hence the project is feasible in the dimension of schedule.

#### CHAPTER 4: CONCLUSION AND LEARNING OUTCOMES

##### 5.1 Conclusion

My goal was to create the backend of Ecom Website, a learning website given by Broadway Infosys For which I carried out the required procedures using the Django framework and developed a thorough understanding of the subjects.

The internship with Broadway Infosys was a fantastic chance to expand my knowledge and skills. Most importantly, I was able to gain experience working in a team and in a real-world environment. It also provided me with the opportunity to work on a project that was significant to my areas of competence and interest. Although my internship helped me gain experience and expertise, the time I had there was not long enough for me to finish my projects. Overall, the internship program helped me develop skills such as handling real-world problems, working under the rules and regulations of an organization, working under a deadline and working under pressure. It helped me gain technical knowledge as well as professional experience which will be very helpful throughout my professional career.

##### 5.2 Learning outcomes

Throughout the course of my ten-week internship, I was given the opportunity to see how an organization works. Different tactful situation was placed for me and several trainings and opportunities at an extensive level had been held to sharpen my technical knowledge. I was able to improve my reporting skill because of different assignments given to me.

Throughout my experiences, I was able to gain a better understanding of how production software is developed and released to the market. It gave me an opportunity to work in the project related to my interest and specialization. It helped me to gain the experience of working in real and practical field and most importantly working in team. Working on projects using Django framework helped me learn how to use it for development. It helped me take the first steps toward a career in software development, bridging the gap between university and industry. Working in Broadway Infosys was a great learning experience for me in not only choosing a career path, but also learning strengths and weaknesses about myself. I know that the details that I learned through my experiences with the Broadway Infosys will be very valuable in my immediate future when choosing a career path.

##### References

Brame, C. J. (2016). Effective Educational Videos: Principles and Guidelines for Maximizing Student Learning from Video Content. *National library of medicine*.

covideo. (2019, January 24). *5 Major Benefits of Using Video In Education*. Retrieved from covideo: https://www.covideo.com/

Django. (n.d.). *overview*. Retrieved from The web framework for perfectionist with django: https://www.djangoproject.com/

edutopia. (2021). Teaching student how to learn from videos. *Avra Robinson*.

geeksforgeeks. (n.d.). *functional and non functional requirements*. Retrieved from geeksforgeeks: https://www.geeksforgeeks.org/functional-vs-non-functionalrequirements/

Hindwabi. (28 Oct 2021). The Quality of Selected Online Learning Platforms. *Ghaith Abdulsattar A. Jabbar Alkubaisi*.

Javatpoint. (n.d.). *Agile model*. Retrieved from Javatpoint: https://www.javatpoint.com/

##### Appendices