

Report On
A Portfolio of BeaconTech Limited

By

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An internship report submitted to the Department of Computer Science And
Engineering in partial fulfillment of the requirements for the degree of
B.Sc. in Computer Science

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Declaration

It is hereby declared that

1. The paper submitted is my authentic work while completing my internship at Beacontech Limited.
2. The paper does not contain material formerly published by a third party.
3. The paper does not contain material which has been already submitted for any other degree.
4. I have acknowledged all sources of help.

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Approval

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Abstract

Web Development is the process of designing websites and web applications. It requires coding, maintaining websites and ensuring that they are user-friendly and easy to use on different devices. The frontend development layer is accountable for validating the website's functionality. It also ensures the website's functionality as it helps to align with user-centric design principles as well as interactive requirements. Frontend usually employs core technologies such as HTML for structural integrity, CSS for visual styling and responsive layouts and JavaScript to enable dynamic behavior and seamless user engagement. Backend development layer utilizes server side programming language related stuff. These include PHP, Python, Ruby and JavaScript. It also focuses on managing underlying business logic, data processing and seamless integration with the frontend as well as the DBMS structure. It helps to ensure robust functionality , Scalability and secure data handling for the website.

Basically, this paper elaborates my internship experience at Beacontech Limited. It is a sister concern of Optimum Solution and Services Ltd. In my internship period, I have participated in projects relating to my field and also I have learned insights into project management, ERP systems and corporate advancement tactics. The report also features the company profile, SWOT analysis and an in-depth perspective of the Beacon ERP system that enhances operations for businesses worldwide.

Keywords: Web Development, HTML, CSS, JavaScript, PHP, User-Centric Design, Dynamic Behavior, Data Processing, DBMS, Scalability, Secure Data Handling, Internship Experience, Project Management, Corporate Advancement, SWOT Analysis, Beacon ERP System.

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Nomenclature

The next list describes several symbols & abbreviation that will be later used within the body of the document

AWS Amazon Web Services

CSS Cascading Style Sheets

DBMS Database Management System

ERP Enterprise Resource Planning

GIT Global Information Tracker

HTML HyperText Markup Language

PHP Hypertext Preprocessor

SQL Structured Query Language

SSL Secure Sockets Layer

SWOT Strengths, Weakness, Opportunities and Threats

UI/UX Interface/User Experience

Chapter 1

1.1 Introduction

In this modern generation that we live in is based mostly on the internet. Every business, every online organization or offline organizations needs a web presence. Web development is an essential skill in this digital era that we live in. The significance of web development cannot be ignored. Digital Economy, Social media, Online Education, Entertainment, E-commerce site etc cannot be formed without the help of web development. In a world where digital presence is necessary, Web development opens up vast opportunities. It also plays a crucial role in shaping the digital landscape. It opens doors for the young skilled people, offering opportunities in a wide range [2].

Web Development has opened vast opportunities for the youth in today's world. Numerous career options have opened, because of the demand for digital services. As it is growing faster the demand for web developers has also risen. Web development helps to develop and bring the ideas of life digitally. It helps us to connect the world easily and with different perspectives. By acquiring knowledge in web development it edges in the job market as the industries are increasingly shifting in the online platforms.

1.2 About Beacontech

Beacontech Limited, a sister concern of Optimum Solution and Services Ltd. It consists of a group of young and energetic skilled human resources with change of appropriate and stable state-of-the-art technology. Beacon, a totally cloud-based ERP (Enterprise Resource Planning) System designed and developed with a view to achieving maximum business benefit for the organization and looking for an effective and efficient way of running their business operation to meet the operational and business goals. A user friendly system has an attractive user interface supporting complete flexibility with fantastic ease of use. It is a very powerful ERP Solution with Report Writing and Business Intelligence capabilities and making it very useful for the users and administrators. The vision of the company is to create a positive and productive society. The mission is to work for societal development through Tech-based initiative.

- Beacon ERP can improve quality and efficiency of the business by keeping a company's internal business processes running smoothly.

- It can lead to better outputs that may benefit the company, such as in customer service and manufacturing.
- Beacon ERP also supports upper level management by providing information for decision making and creating a more agile company that adapts better to change.
- Having Beacon ERP can improve data security and allows organizations the ability to more easily ensure key company data is not compromised.

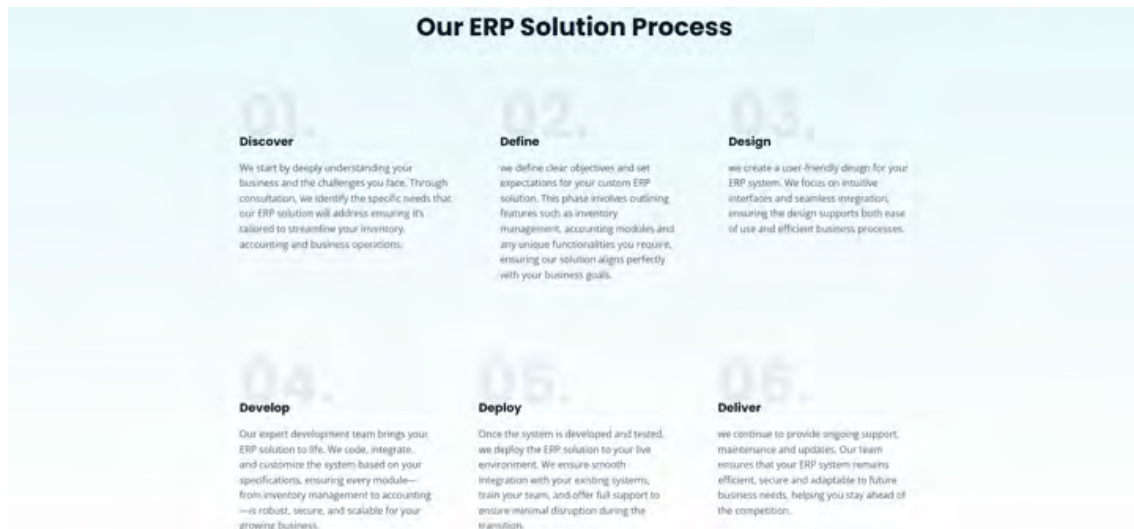


Figure 1.1: ERP Solution Process



Figure 1.2: ERP to Overcome the Challenges

1.2.1 Top Features of Beacontech:

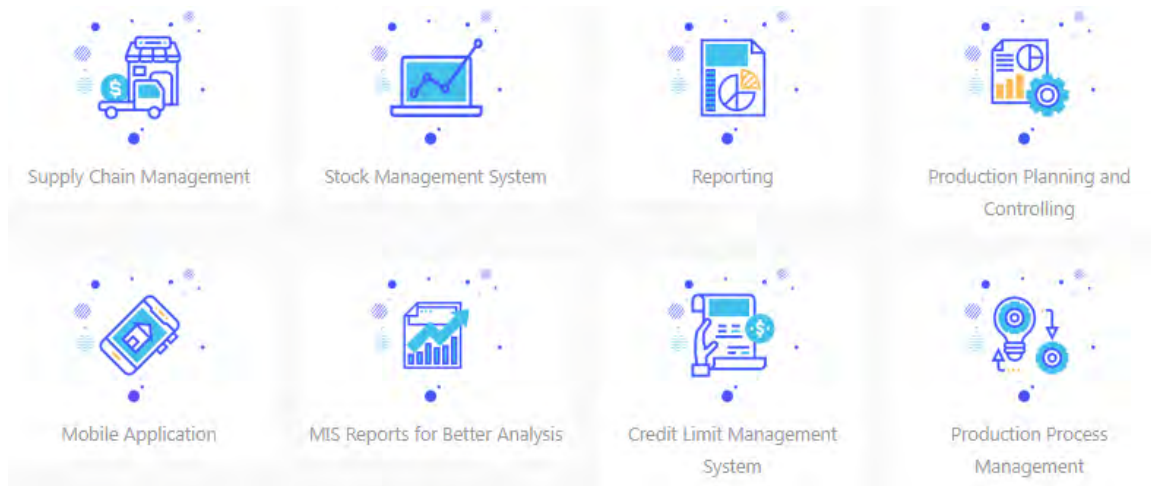


Figure 1.3: Top Features of Beacontech

1.2.2 Recruitment process in BeaconTech

Firstly I had to drop my Resume and a cover letter. After accepting my resume I have been called for an interview. They asked a lot of questions regarding my field of interest, And i tried my best to answer them all. Although I was a little bit nervous as I have never experienced something like this before. But they were very welcoming and friendly towards me. They also asked me about my interests and future goals, and I managed to answer all the questions. I was a bit nervous but overall, it was a very interactive interview.

1.3 SWOT Analysis of Beacontech Limited

Strengths	Weaknesses
Exceptionally skilled workgroup	Limited female involvement in leadership
Multifaceted range of services	High reliance on international markets
Cloud-based ERP solution	

Table 1.1: Strengths vs Weaknesses Analysis

Opportunities	Threats
Broadening local market presence	Elevating global competition
Collaboration with advancing Tech hubs	Legislative changes

Table 1.2: Opportunities vs Threats Analysis

1.3.1 Skills Gained

- **Technical Skills:** I have learned hands-on experience in ERP software and in data visualization.
- **Soft Skills:** Improved in teamwork, communicating with the members and stuff and problem-solving abilities.



Figure 1.4: Lessons Learned in Beacontech Limited

1.4 Technologies used in Web Development:

Many tools are required for web development. And those are:

HTML

HTML is the basic building block for building a website. The use of HTML is to build the content on the webpage. Webpage cannot be created without using HTML. It is used to create headings, paragraphs, lists and images [6].

CSS

CSS is used to style the content of HTML. It helps coloring the text, layout and spacing of the website.

JavaScript

JavaScript helps the website to be connected. It adds functionality such as : sliders, windows, pop-up and form validation. Mostly the websites depend on JavaScript as it helps to create dynamic features of the web page.

Web Frameworks

Front-end frameworks include React, Vue.js, and Angular. And Backend frameworks include Django (Python), Laravel (PHP), and Express.js (Node.js). It helps developers work faster by giving ready-made components and templates.

Database Management System:

Database helps to store the data of the website such as : product detail, information of the user and so on. Databases like MySQL and PostgreSQL, as well as NoSQL databases like MongoDB, are commonly used to store and retrieve data for websites.

Version Control (GIT)

Developers can track the changes in their code with the help of version control like GIT. It allows numerous developers to work on a project simultaneously and track the progress and fix bugs more efficiently.

Web Servers

Web servers host the websites and handle requests from users such as: clicking on a link, submitting a form etc). Popular web servers include Apache, Nginx, and cloud-based servers like AWS.

1.4.1 Relevant application software

To enhance Beacontech's portfolio, I worked with multiple indispensable software tools that simplified the development process. In the following is a breakdown of key applications that I used and how they contributed to the project—

- **XAMPP:** Before jumping into WordPress I have set up a local server environment using XAMPP. This enabled me to install and test WordPress offline and ensure smooth functionality before execution. Configuring Apache and MySQL through XAMPP was essential for database management and simulating a live server environment during development.
- **WordPress:** As the central platform for the portfolio, WordPress provided a user-friendly CMS framework. Since I have used the free version therefore I had to work within its limitations but it still offered flexibility for content management, theme customization and plugin setup [1].
- **Plugins:** To strengthen the website's features I have installed several plugins including
 - *Elementor* – For drag-and-drop page building and User-friendly design.
 - *Meta Slider* – To create responsive image galleries and sliders.
 - *SEO plugins* – For basic search engine optimization.
 - *Security plugins* – To enforce security measures (though premium features were restricted).
- **VS Code:** While WordPress handled most of the front-end so I have used VS Code to write custom HTML, CSS and JavaScript snippets for finer control over decorative elements. It also helped in debugging and organizing code more efficiently.
- **Figma & Adobe XD:** For wireframing and prototyping the website's layout before development. These tools were unimportant For visualizing the structure and getting feedback from my team early in the process [5].
- **Git (Basic Version Control):** Though I didn't use advanced Git workflows therefore I have learned how to track minor changes in my code and especially when collaborating with teammates on small fixes.

Setting up these tools wasn't always smooth—for example: configuring XAMPP correctly took some trial and error and working with WordPress's free version meant finding creative quick fixes for missing features. Then again, this hands-on experience intensified my understanding of how different software interconnects In real-world projects and improved my problem-solving skills when technical complications developed.

1.5 About Internship

The journey of a student's life is filled with lots of knowledge and experience, which helps us to grow further. In our academic life we learned and gathered a lot of knowledge which helped us to grow and also helped us to challenge different aspects in our life. In our academic life we stay busy with attending class, completing assignments, presentations, exams and so on. We learn theories and then apply them in the labs to get a better idea of the topics. But Only learning will not help us in our future path. We need real life experience.

Internship is very important for a student to experience the real life we are about to step in. It gives us the idea and teaches us how we should build ourselves after our graduation. It gives us work experience to rectify ourselves. Only gathering knowledge and reading books won't help. We need to develop our personality and be confident enough to face the real world. And that is why internship plays a significant role. Internship helps us build ourselves, learn new things, meet new people, it teaches us how the corporate world works. It helps us to be habituated in the work life environment. Students now prefer doing internships rather than doing thesis papers. Because it gives us the practical idea and experience of the job life. We can also add this in our CV, which will help us to apply for higher studies and also for applying for jobs.

As a student of Brac University I chose to do an internship over writing a thesis paper. I got the opportunity to do an internship at BeaconTech Limited as a Web Developer. It is really a good opportunity for me career wise in the future. The environment of the company is very friendly and it really helps me to learn faster. By doing an internship in this company it has taught me alot. I have learned new techniques and got ideas for the future. Firstly I had little idea about the field i chose, But working with them I have learned alot and hoping to gather knowledge as much as i can. I have started working on the portfolio of the company and facing a few difficulties but I am glad I had Sumaiya ma'am as my supervisor in the company. She taught me new techniques and helped me with no discrimination. From her I got to know about lots of new tools and how to use them. She has also taught me work ethics and how to manage in the office environment with the seniors. Doing an internship at BeaconTech has taught me a lot of things. This helped me to grow further and gave me a brief overview of how the corporate world actually works.

1.6 Problem Statement

In my internship at Beacontech Limited, I am given a task with creating a professional web development portfolio. The process of creating an effective portfolio gives many challenges. And which need to be solved to ensure it meets the industry standards. A portfolio in web development is very important for showcasing technical skills, creativity, and project experience to potential employers and clients. However, creating a well-organized, visually appealing, and functional portfolio that effectively communicates these elements is very difficult.

1.6.1 Content Structuring and Presentation

One of the primary challenges is determining how to structure and present the projects, skills, and experiences in a manner that highlights my strengths as a web developer. A portfolio not only displays completed projects but also expresses the thought process. Confirming transparency and connection while avoiding information excess is essential but complex.

Design and User Experience (UX): web development must provide new and innovative designs and good user experience practices. The design must be pleasing to keep visitors engaged.

Technical Implementation: The portfolio should establish a vast range of technical skills, from frontend design using HTML, CSS, and JavaScript, to backend functionalities such as API integration or database management. A key challenge is securing the website is not just visually appealing but also technically sound with clean efficient code that follows industry best practices.

Dynamic and Interactive Features: Showcasing feedback in the portfolio such as : interactive project outlines, animations, real-time data visualization adds value. The technical establishment of these features can be complex, requiring careful planning to ensure they enhance rather than distract from the portfolio's overall purpose.

Version Control and Maintenance: As the portfolio will evolve over time and maintaining it through version control and updating it with new projects presents ongoing challenges. Keeping the portfolio up-to-date, bug-free and optimized across different devices and browsers requires continuous monitoring and development.

Target Audience and Personal Branding: The portfolio must be refined to the specific needs and expectations of its target audience whether that be future employers or clients in the web development community. Establishing a clear personal brand and remaining adaptable to various audiences is a critical aspect that requires thoughtful content selection.

By addressing these challenges, the goal is to create a professional portfolio that will showcase my skills in web development while also aligning with the standards of Beacontech Limited.

1.7 Internship outline

Chapter 1 of this paper discusses the interconnected world. It emphasizes how web development is vital for businesses, education and entertainment and how it can offer abundant career opportunities. Key technologies such as : HTML, CSS, JavaScript, frameworks and databases enhance digital experiences. The goal was to create a refined industry-standard portfolio that tries to showcase my expertise as a web developer. It also discusses where I worked as an intern. The name of that company was Beacontech Ltd. which is a sister concern of Optimum Solution and Services Ltd. Furthermore this chapter extends upon how a cloud-based ERP

system is being designed to improve business efficiency through advanced features.

In chapter 2, the portfolio development process at BeaconTech Limited has been showcased. Also how to use HTML, CSS, JavaScript and WordPress to create an interactive website. The methodology contained requirement analysis, Figma wire-framing, Bootstrap implementation and WordPress integration with SEO plugins. Also this chapter emphasizes how via team collaboration and continuous optimizations, the project elevated both the company's online presence and my practical web development skills and covered all stages from design to hardened deployment.

It also emphasizes how data security and decision-making support works. After introducing the company's vision and mission this chapter has shared the recruitment experience and detailed analysis. Subsequently, a SWOT analysis is also being discussed. This chapter also discusses the strengths and weaknesses of the company. To wrap up, the chapter concludes with the lessons I have learned and it reflects on gaining technical expertise in ERP and data visualization along with developing essential soft skills For example : teamwork and communication. Through the exploration, this chapter provides a Complete understanding of Beacontech's operations, challenges, and the professional growth.

Chapter 3, focuses on the objectives and benefits of an internship, focusing on its role as a bridge between academic learning and professional work environments. This chapter first explains how internships provide hands-on experience in helping students and fresh graduates develop their technical skills in areas like : HTML, CSS, JavaScript, Python and version control systems such as Git. After discussing skill development it spotlights the importance of networking and allowing interns to build professional relationships and learn from the experienced industry experts. The chapter then delves into industry practices including Agile methodologies and project management tools. while also stressing the need to adapt to workplace culture through collaboration, cultural sensitivity and teamwork. It covers career development factors such as: time management, confidence-building and understanding client requirements for effective UX/UI design. The chapter concludes By drawing attention to the importance of communication in team collaboration, project success and receiving constructive feedback—all of which contribute to a well-rounded professional development experience. Through these key points, the chapter portrays how internships prepare individuals for real-world challenges in their Designated sectors.

In chapter 4, this paper discusses the limitations that I faced during my internship at Beacontech Limited while developing a WordPress portfolio website. For example : Restricted access to premium tools, limited SEO and security features, lack of advanced web development experience and time restrictions. Regardless of these challenges the experience has taught me problem-solving and adaptability. Moving forward, this chapter concluded with a suggestion about how we blend web development into our education and make learning platforms more affordable and linking the digital divide and encouraging mentorship programs to help students gain real-world skills. This part of the chapter concludes by highlighting web development's growing importance in shaping careers and how it needs to spread consciousness and proper guidance to motivate future generations.

Chapter 2

2.1 Methodology

2.1.1 Primary Sources:

- **Direct Development Work:**

I was given a task to make a portfolio of the company and I designed and innovated the company portfolio using HTML, CSS and WordPress and that included creating flexible and responsive web pages to feature Beacontech's services.

- **Team Collaboration:**

I have worked closely with my seniors and colleagues to understand the project requirements and also I have gathered feedback from them and then I have implemented necessary changes during repetitive prototyping phases. This includes regular brainstorming meetings and new innovative ideas were discussed and verified for leveling with Beacontech's goals. My mentor at Beacontech always helped and provided me with detailed guidance on harmonizing dynamic design and also ensuring browser compatibility. While colleagues gave constructive recommendations to boost the theme appeal and user experience of the portfolio. Coordination also extended to Interdepartmental efforts for example: Aligning with content teams for precise representation of services and marketing teams for Visual consistency.

- **Workshops and Training:**

I have also participated in workshops on modern web technologies and best practices for UI/UX design. These workshops have covered many topics relating to creating wireframes, improving performance for faster load times and implementing user-friendliness standards to make the website open for all users. Training periods also included hands-on activities for example : using software like Figma for prototyping and WordPress plugins for combined functionality. These workshops have not only developed my technical skills but also it has provided perceptions into the principles of user-centric design which were directly applied to the portfolio project I worked on.

2.1.2 Secondary Sources:

- **Company Guidelines:** Referring to Beacontech's company identity and content guidelines is to ensure the consistency in the portfolio. This has added clinging to specific color schemes, typography and layout standards to build the design with the company's corporate identity and value.
- **Web Development Resources:** I have used resources Like : W3Schools, MDN Web Docs and Stack Overflow and so on to build my technical expertise. These platforms have helped and provided me with detailed documentation, prototype and community support and helped me troubleshoot challenges and grasp best practices for dynamic design and WordPress customization.
- **Competitor Analysis:** I also have analyzed combatant websites and industry-leading portfolios to identify key trends and new creative design elements. This research helped in combining modern features such as animations, parallax scrolling and enhanced navigation menus into the Beacontech portfolio and ensuring it remained competitive and appealing.
- **Client Feedback Documentation:** I have also reviewed comments and client feedback to accurately demonstrate Beacontech's successful projects in the portfolio. This information was a bit tough for me in emphasizing the company's strengths and establishing its reliability in the IT sectors.
- **Academic Knowledge Integration:** I have learned new lessons from my coursework in web development, database management and design principles to build the content and architecture of the website effectively. The foundation provided scope for executing practical solutions and ensuring the final product met both technical and refined guidelines.
- **Industry Blogs and Case Studies:** I have also explored a few perceptions from leading industry blogs and real-world examples like : those published by HubSpot and Smashing Magazine and to use global best practices for portfolio development. These resources were very helpful in learning about these proficient SEO techniques, content structuring and performance betterment.

2.2 Background Information

During my internship at Beacontech limited, I noticed that this company was focusing on cloud-based ERP systems. That's why I had the opportunity to develop a professional portfolio which I will discuss later on has bridged the gap between theoretical knowledge and practical skills. This environment was crucial for me to learn about the intersection of academic principles and industry practices. My role involved mastering fundamental technologies such as HTML, CSS, JavaScript and WordPress which were essential for creating a pleasantly looking engaging user experience. Moreover, I gained valuable information's into UX design and corporate branding through research conducted during the internship [4].

During my work period there were various projects each having their own requirements. The projects scope ranged from designing and structuring content effectively across different browsers to ensure the quality. To tackle this challenge, I employed a structured methodology combining both technical and strategic insights. This process often required iterative prototyping where I would create mockups or prototypes of features based on user feedback. Additionally, I tried to collaborate closely with my mentors at Beacontech LTD and my supervisor from my university to ensure the quality of my work. I also attended various workshops on modern tools which I will discuss later on in this chapter.

Furthermore, by analyzing competitors' strategies and following industry best practices I was able to make informed decisions while developing the final projects. Sometimes when unified decisions were mattered then I used to seek the mentors of this project and ask them about my approach. Sometimes they encouraged me and sometimes discouraged me but it all was a part of a collaborative environment. Through this comprehensive approach, I synthesized academic frameworks, workshop insights and Agile methodologies to ensure that every step of the way reflected technical rigor and strategic alignment with industry standards.

2.3 In-depth knowledge from my Internship

- **Portfolio Development:** I have mainly focused on the complex and detailed process of building the portfolio of Beacontech's. It includes the design and performance of an innovative and user-friendly platform showing my company's products, services and the achievements. By adopting improved web development tools like HTML, CSS, Javascript and WordPress. And I have also ensured that the portfolio not only met the functional requirements but also stood out Sophisticatedly. The portfolio has aimed to reflect Beacontech's progressive capabilities and market presence With impact.
- **Web Development Practices:** The technical methodologies I have applied during building the portfolio is into the utilization of HTML, CSS, javascript and WordPress to create dynamic, interactive and creative web pages. Moreover, In the modern UI/UX norms were applied to enhance user

involvement and ensure an instinctive browsing experience. Very specific efforts were made to achieve cross-browser compatibility, mobile responsiveness and visually appealing layouts and which were very critical in making the portfolio highly interactive.

- **Collaborative Efforts:** Teamwork is very important for making the success of the portfolio project. I have worked together with my mentor and to align the portfolio with Beacontech's branding and strategic targets. The regular collaborative problem-solving meetings and feedback have helped me to ensure that the portfolio met its high standards of quality and creativity that it deserves. Furthermore, the cross-departmental cooperation has allowed me for perfect alignment of technical elements with marketing and design requirements which resulted in a very impactful final outcome.
- **Learning Outcomes:** The internship has provided me with a learning experience that helped me to know new technical, analytical and Interaction skills. I have also gained hands-on experience in web development and very particularly in creating designs and solving technical problems. Moreover, my project management abilities were tightened as I juggled multiple tasks while submitting to deadlines. Communication and collaboration with team members have also strengthened my skills, enabling me to contribute to team goals.
- **Strategic Analysis:** Through scrutinizing the company's position, I have learned few insights into how strategic decisions are being made in the software based company.. This understanding has allowed me to straighten the portfolio with the company's growth and also making it a valuable approach in showing Beacontech's expertise to potential clients.
- **Real-World Application:** The portfolio will serve as a real-world exploitation of my technical and creative skills. The Challenges such as : ensuring the design, achieving cross-browser compatibility and also enhancing the website for SEO were tackled systematically. These efforts were not only improved by the portfolio's functionality but also it has enhanced its visibility and reach by making it valuable for Beacontech's online appearance and marketing efforts.
- **Impact Assessment:** The portfolio has significantly refined Beacontech's online presence. And by presenting the company's services and achievements in a professional and appealing manner, it has improved the client's involvement and Acquiring potential. In addition, the portfolio has emphasized Beacontech's identity by synchronizing design with the company's mission and vision and creating an impressive impression on the clients and partners.

- **Prototyping and Usability Testing:** Techniques such as : Figma and Adobe XD were used to draft layouts and it was sequentially tested for user-friendliness. Feedback from team members and mentors was very much helpful to refine navigation, availability and user interaction [3].

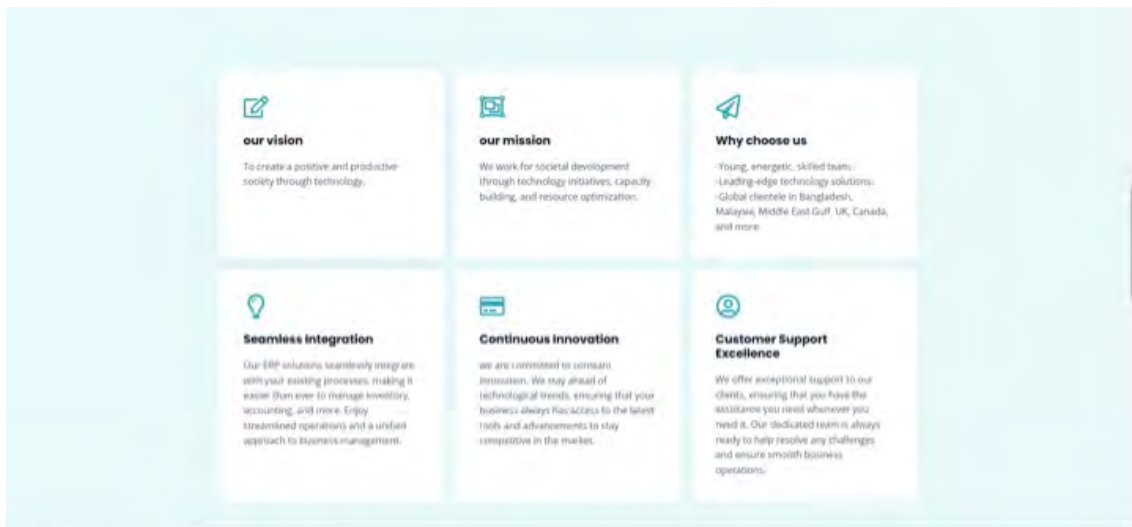


Figure 2.1: Homepage of the portfolio

2.4 Development Procedure of my portfolio

1. Understanding Requirements of the Project:

- The very first step of creating the portfolio was to identify what the portfolio needs to demonstrate. With proper discussions with my team members and my supervisor's help I have defined the goals of the project.
- My research was to study similar portfolios from industry challengers to understand who to use the features and who can make it work best.
- I have created a document to lay out all the requirements including the design preferences, writing sequences, functional elements and guidelines.

2. Designing the Wireframe and Layout:

- Before I jumped into coding, some of the illustrations and wireframes were built using Figma and Adobe XD. These rough drafts have helped me a lot to visualize how each section of the website would be structured.
- My main focus was on creating the website visually appealing and easy to navigate for the clients.
- The feedback from my supervisor, mentors and team members was accumulated to improve the design before the actual development began.

3. Front-End Development:

- The front-end of the website was developed using HTML, CSS and JavaScript to secure a modern and user-friendly layout.
- Bootstrap and Tailwind CSS were implemented to elevate the design continuity and adaptive performance across multiple devices.
- Elements, For example: Navigation menus, interactive sections and animations were included to make the website more interactive.
- Special attention was given to guaranteeing compatibility with different web browsers such as: Google Chrome, Mozilla Firefox and Microsoft Edge to avoid design irregularities.

4. Back-End Coordination and Content Management System Setup:

- Since the website needs to be easily updated in the future, WordPress was chosen as the Content Management System.
- Custom WordPress templates were built to maintain an exceptional and professional look.
- Important plugins were installed, like : SEO optimization tools, security plugins, Elemantor, Meta Slider and caching solutions to improve performance and protect user data.

5. Testing and Quality Assurance:

- Once I had completed building the website, it went through multiple rounds of testing to identify and fix any issues.
- The website was examined on different screen sizes such as: desktop, tablet, mobile to ensure proper flexibility.
- Load time refinement techniques, such as the image compression, code minification and caching were executed to enhance performance.
- Usability testing was performed by asking team members to analyze the site and provide feedback on any difficulties they have faced.

6. Final Implementation and Maintenance:

- After all the necessary modifications were made, the website will be implemented to a secure hosting platform with SSL encryption for security.
- Post-launch testing will be carried out to ensure that all features were working correctly on the live site.
- A maintenance plan will be put in place to regularly update the website's content, security and performance aspects to keep it running very smoothly.

Chapter 3

3.1 Internship Outcome

Internship is a program that is a hands-on experience and it is a very important medium and also works as a critical bridge between academic and professional workplaces. It helps the students or freshly graduates with practical work in their chosen field. It helps them to develop their skills and build a professional Network which will facilitate in their workplace.

3.2 Skill development

- Helps to learn new technologies or tools such as : HTML,CSS, JavaScript.
- Helps to learn deeper about python, PHP or Node.js.
- It also helps to learn about the version control system like GIT.
- It improves and helps to gain more optimization skills, problem-solving and so on.

3.2.1 Networking

- Helps to form good relationships with professionals in the Web Development field.
- Networking plays a vital roles in career paths
- Helps to learn more from the experienced one in the chosen field.

3.2.2 Understanding industry practices

- Acquire skills in development projects which will help planning and design to execution and testing.
- Agile Methodologies, Management tools such as : Trello,jira.
- Achieve intuition in the industry standards for coding, web security, web design and so on.

3.2.3 Cultural adaptation

- Understanding different perspectives and adapting the environment of the work is the first step.
- Interacting with colleagues and forming a friendly bond.
- Cultural sensitivity and global teamwork specifically globally connected companies.
- Experience in multiple cultures influence problem solving techniques, leadership styles and lastly workplace behavior.

3.2.4 Professional Growth and Development

- Time Management is important in professional life. Need to complete the task within the deadline with sincerity and discipline.
- It's important to be Confident in the workplace and to face daily life challenges. It will help us to build.

3.2.5 Understanding Client and Business Requirements

- To develop user-friendly web solutions, we need to gather and illuminate client's requirements.
- Need to understand UX and UI design according to the clients demand.

3.2.6 Communication

- Collaborating with the team mates will also help to complete the projects.
- Communicating will make us more confident and will help us gain more skills.
- By developing the ability to communicate with the team mates it will help to get feedback on the work.

Chapter 4

4.1 Limitations

During my internship at Beacontech Limited, I have dealt with several limitations as developing the company's portfolio website using WordPress. Since I drew upon the free version of WordPress therefore I had restricted access to advanced plugins, themes and customization tools which limited the functionality and design flexibility of my website. Moreover, the free version implemented constraints on SEO optimization and security features while making it challenging to fully elevate the site's performance and protection.

Another limitation was the lack of foremost experience with enterprise-level web development. As I have applied my academic knowledge in real-world projects, I often demand deeper knowledge in areas like : Database connectivity, scalability and cross-platform compatibility skills I was still developing during my internship period. As I have pursued the computer science and engineering degree from my university, there was a lack of information about the prior knowledge of web developing. There were no such courses which would teach me about HTML, CSS, which is the reason I had taken more time to refine my knowledge about web development. Time restrictions also played a role as balancing multiple responsibilities within deadlines sometimes restricted opportunities for more Creative testing or thorough analysis.

In conclusion, working with limited access to senior developers for immediate troubleshooting sometimes slowed down problem-solving. These limitations provided me valuable lessons in Problem-solving ability and Adjustability.

4.2 Future works

- **Integrating Web Development into Education Systems**

Programming language and web learning should be included in schools and colleges to build up the skills of the students. This will help the student in their higher studies and career development.

- **Closing the Digital Divide**

Web development should have access to different socio economic groups. The main aim is to spread knowledge so that this youth can learn and build the world differently.

- **Progressive Learning Platforms**

Educational Institutions are not enough, we need more platforms to learn such as : online courses, online teaching methods, recorded videos etc. But nowadays online courses are expensive. Therefore we need affordable platforms for learning and developing ourselves.

- **Encouraging Mentorship Programs**

Experienced Web developers can connect with the students and teach them new skills. Mentors are very much important for the students. They help the student to face the real world issues. With the help of the mentors today's youth can acquire more knowledge and expand it in the betterment of web development.

4.3 Conclusion

In shaping the future of this generation web development plays a vital role in our life. It has changed our thinking completely and made our life easier. Web development has opened vast career opportunities for us. It has opened every possible door. However, the main challenging situation right now is to spread it widely as many people are unaware because of the lack of proper knowledge and guidance. The main aim is to introduce web development and its significance to the youths, so that they can learn and build up their skills more deeply. As the digital outlook continues to unfold, web development will remain a crucial skill for the next generation.

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