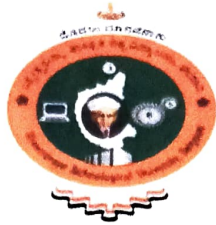


VISVESVARAYA TECHNOLOGICAL UNIVERSITY
"Jnana Sangama", Belgavi-590 018, Karnataka, India



An Internship Report
On
“FULL STACK WEB DEVELOPMENT ”
Along with the project
“JOB PORTAL”

Submitted in Partial Fulfillment of the requirement for the award of the degree of

BACHELOR OF ENGINEERING
IN
COMPUTER SCIENCE AND ENGINEERING

Submitted By

Name: Debanjan Poddar
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Under the guidance of

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Dr. Vikas Reddy
Professor & Head of the Department
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External Guide

Mr. Nithin C Naik
Mentor & Trainer
TEQUED LABS



S J C INSTITUTE OF TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
CHIKKABALLAPUR-562101

2021-2022


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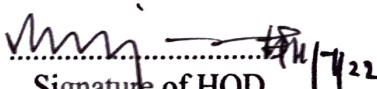
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Department of Computer Science and Engineering

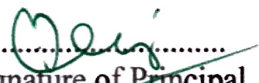


CERTIFICATE

This is to certify that the Internship work entitled **"FULL STACK WEB DEVELOPMENT"** Along with the project **"JOB PORTAL"** carried out by **DEBANJAN PODDAR** bearing USN:1SJ18CS025 a bonafide student of Sri Jagadguru Chandrashekaranaatha Institute of Technology in partial fulfilment for the award of **Bachelor of Engineering in Computer Science and Engineering of Visvesvaraya Technological University, Belgaum** during the year **2021-22**. It is certificated that all corrections / suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The Internship report has been approved as it satisfies the academic requirements in respect of Internship work prescribed for the said Degree.


Signature of Guide
Dr Vikas Reddy S
Assistant Professor
Dept. of CSE, SJGIT


Signature of HOD
Dr. Manjunatha Kumar B H
Professor & HOD,
Dept. of CSE, SJGIT


Signature of Principal
Dr. G T Raju
Principal, SJGIT

External Examiners:
Name of the Examiners

Signature with Date

1.

2.

COMPANY CERTIFICATE



CERTIFICATE OF COMPLETION

This certifies that

DEBANJAN PODDAR

has completed one month Internship on **Full Stack Web Development**
from 1st September to 30th September 2021 at Tequed Labs and has
worked on a Project Titled
"JOB PORTAL"

USN: 1SJ18CS025

Institution Name: S J C Institute Of Technology

Internship ID: TLS21A268

Supreeth Y S, CEO

Aditya S K, CTO

DECLARATION

I, **Debanjan Poddar**, student of VIII semester B.E in Computer science & Engineering at S J C Institute of Technology, Chickballapur, hereby declare that the Internship work entitled “COMPANY WEBSITE” has been independently carried out by me under the supervision of **Dr.Vikas Reddy S** , Assistant Professor of Department of CSE, and the coordinator **Prof Swetha** Professor, submitted in partial fulfillment of the course requirement for the award of degree in **Bachelor of Engineering in Computer Science & Engineering of Visveswaraya Technological University, Belgavi** during the year 2021-2022. I further declare that the report has not been submitted to any other University for the award of any other degree.

PLACE: CHICKBALLAPUR

Date: 11 May 2022

NAME: Debanjan Poddar

USN : 1SJ18CS025

ABSTRACT

The project demonstrated here is the simple website for the company website. Many of the existing websites are literally of no use, because the information is not accurate and adequate. Website must be attractive initially and then the navigation must be very much proper. Here the proposed website is the more precise one. Website must contain meaningful and knowledgeable information that is belonging to the company. The proposed system is basically for the funding and transactions, who get registered for their internships and other courses. This website also contains the transaction and contribution. Navigation is also proposed to a greater extent without any disturbance hence the website developed is the best one.

ACKNOWLEDGEMENT

With reverential pranam, we express my sincere gratitude and salutations to the feet of his holiness **Byravaikya Padmabhushana Sri Sri Sri Dr. Balagangadharanatha Maha Swamiji**, & his holiness **Jagadguru Sri Sri Sri Dr. Nirmalanandanatha Swamiji** of Sri Adichunchanagiri Mutt for their unlimited blessings. First and foremost, we wish to express my deep sincere feelings of gratitude to our institution, **Sri Jagadguru Chandrashekaranaatha Swamiji Institute of Technology**. For providing me an opportunity for completing my internship work successfully.

I extend deep sense of sincere gratitude to **Dr. G T Raju, Principal, S J C Institute of Technology, Chickballapur**, for providing an opportunity to complete the Internship Work.

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I convey our sincere thanks to Internship Internal Guide **Dr. Vikas Reddy S Professor and Head of the Department, Department of Computer Science and Engineering, S J C Institute of Technology**, for his constant support, valuable guidance, and suggestions of the Internship Work.

I am thankful to Internship External Guide **Mr. Nithin C Naik, TEQUED LABS**, for providing valuable guidance and encouragement of the Internship Work.

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I also thank all those who extended their support and co-operation while bringing out this Internship Report.

Debanjan Poddar (1SJ18CS025)

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CHAPTER - 1

COMPANY PROFILE**1.1 History of the Organization**

Tequed Labs Private Limited is a Private incorporated on 22 January 2018. It is classified as Non-govt Company and is registered at Registrar of Companies, Bangalore. Tequed Labs is a research and development center and educational institute based in Bangalore. They are focused on providing quality education on latest technologies and develop products which are of great need to the society. They also involve in distribution and sales of latest electronic innovation products developed all over the globe to their customers. They run a project consultancy where they undertake various projects from wide range of companies and assist them technically and build products and provide services to them. They are continuously involved in research about futuristic technologies and finding ways to simplify them for their clients.

1.1.1 Objectives

The major objectives of internship are:

- To expose students to a particular job and a profession or industry.
- To provide students with opportunity to develop skills in the field of interest.
- To assist students in gaining vital work-related experience
- To help students in developing business contacts i.e. creating network contacts.
- To help students potentially land permanent or contractual jobs from host company.

1.1.2 Operation of the Organization

The race for digital transformation is on. In this globally connected on-demand world with rapid advancements in internet technologies, businesses worldwide are under constant pressure to add innovative real-time capabilities to their applications to respond to market opportunities.

Every business worldwide is building event-driven, real-time applications - from financial services, transportation, and energy, to retail, healthcare, and Gaming companies.

Our endeavor is to make it easy to develop innovative real-time applications and efficient to operate them in production.

We have a proven record of building highly scalable, world-class consulting processes that offer tremendous business advantages to our clients in the form of huge cost-

Company website

benefits, definitive results and consistent project deliveries across the globe

We passionately strive to improve your business by delivering the full range of competencies including operational performance, developing and applying business strategies to improve financial results, defining strategic goals and measures and managing those goals along with measuring and managing them.

1.2 Major Milestones

Skills have become the global currency of the 21st century. In a world where competition for jobs, pay increases, and academic success continues to increase, certifications offer hope because they are a credible, third-party assessment of one's skill and knowledge for a given subject. Some of the key benefits achieved by the students by certification are Validation of knowledge, Increased marketability, Increased earning power, Enhanced academic performance, Improved reputation, Enhanced credibility, Increased confidence, Respect from peers. By Tequed labs certification, students has improved academic performance having, higher grade point average for certified college students from 6.9 to 7.8, higher graduation rates for certified college students: 78.4% to 94.5% and the dropout rates are reduced to 0.2% to 1.0%.

1.3 Structure of the Organization

Our super energetic and massive team at Tequed labs is our core strength, forming an excellent blend of IT minds with a creative bent. Their goal is to keep improving and delivering the skills that will help students have a successful career in the IT industry.

Taking advantage of our highly skilled and experienced trainers. We are primarily a student-centered organization dedicated to exceeding students' expectations in terms of meeting their needs. They successfully hosted a group of seasoned professionals.

Trainers who collaborate in order to provide their students with the knowledge they need to advance in their careers. They take pride in being a sought-after Skill development after delivering successful internships. They have successfully delivered value to our students as well as colleges over the years. They truly believe that the success of their students is their success, and they do not consider themselves to be a vendor for their program. We'd like to hear some of their stories and learn how far they've gone to ensure the success of our students, and they'll do everything they can to make that happen.

1.4 Services Offered

Training / Internships form a very important part of students over all development that's why AICTE and Universities have made it mandatory for every engineer and MCA to undergo the same, we help students in achieving this goal by helping them acquire latest skills and provide them with hands on projects.

1. Machine Learning and Internship Program.

Learn Machine learning, an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed, bundled with Tequed labs.

2. ROBOTICS

Robots are automating the world with their initiation in manufacturing industries.

In this course, we will cover the Embedded Systems, Sensors and Actuators

3. Android Application Development

Android is the still most used mobile operating system in the world ,and demand for skilled Android developers remains very high.

4. Cyber Security Certified Associate

Learn the ethical way of how to do penetration testing and other testing methodologies that ensures the security of an organization's information systems, bundled with Tequed Certification.

5. Full Stack Web Development

Web development is the most valued technology as businesses

In this course, you will learn HTML, CSS and databases like MySQL will also be covered.

CHAPTER – 2

ABOUT THE DEPARTMENT

2.1 Specific Functionalities of the Department

Our department of tech support majorly focused on manage, maintain and repair IT systems.

The Special functionalities include

- Understanding the work to be completed.
- Planning the assigned activities in more detail if needed
- Completing assigned work within the budget, timeline and quality expectations
- Informing the project manager of issues, scope changes, risk and quality concerns
- Proactively communicating status and managing expectation

2.2 Process Adopted

The department aims to first understand the user requirements. Further on, a basic structure of the product that needs to be built is drawn and understood. Eventually, the technologies that would best help in developing the product are understood. If the product has database requirements, the schema and the database design are worked upon. The department believes in “Think before you code”- the requirements and logics are first understood over a paper and then are moved to a code form. Agile processes generally promote a disciplined project management process that encourages frequent inspection and adaptation, a leadership philosophy that encourages teamwork, self-organization and accountability, a set of engineering best practices intended to allow for rapid delivery of high-quality software, and a business approach that aligns development with customer needs and company goals. Agile development refers to any development process that is aligned with the concepts of the Agile Manifesto. The Manifesto was developed by a group fourteen leading figures in the software industry, and reflects their experience of what approaches do and do not work for software development.

2.3 Testing

Testing was done according to the Corporate Standards. As each component was being built, Unit testing was performed in order to check if the desired functionality is obtained. Each component in turn is tested with multiple test cases to verify if it is properly working. These unit tested components are integrated with the existing built components and then integration testing is performed. Here again, multiple test cases are run to ensure the newly built component runs in co-ordination with the existing components. Unit and Integration testing are iteratively performed until the complete product is built. Once the complete product is built, it is again tested against multiple test cases and all the functionalities.

The product could be working fine in the developer's environment but might not necessarily work well in all other environments that the users could be using. Hence, the product is also tested under multiple environments (Various operating systems and devices). At every step, if a flaw is observed, the component is rebuilt to fix the bugs. This way, testing is done hierarchically and iteratively.

2.4 Structure of the Department

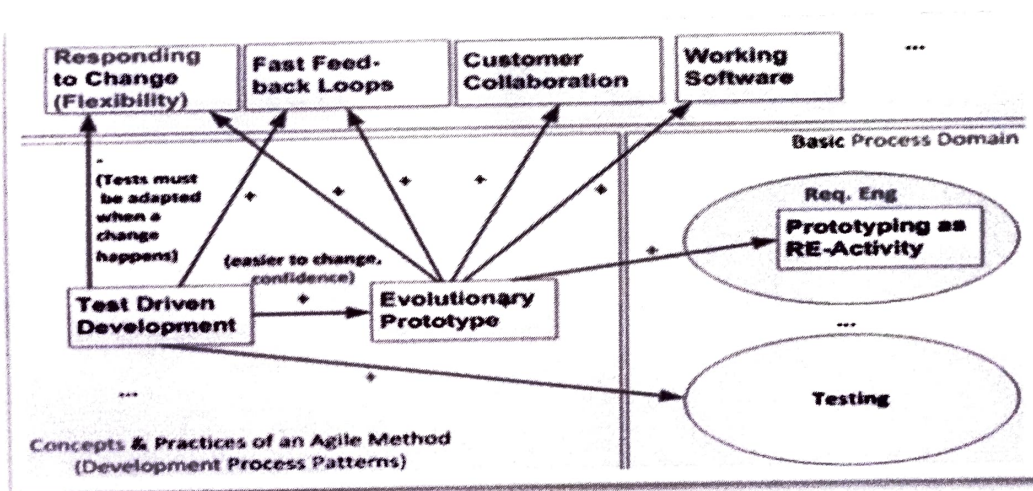


Figure 2.4.1 Structure of the Department

2.5 Roles and Responsibilities of Individuals

Since the internship was remotely conducted by the company, to ensure easy onboarding of interns, the company had individuals who took care of the smooth run of online training.

- Operation and Strategy Head- Ensured there were no difficulties for interns while onboarding. Best of mentors and doubt clarifying sessions were arranged too.
- Technical Lead- Ensured the technicalities of online training to be smooth. Best platforms were arranged for our meetings and trainings.
- Mentors- They have helped us to understand the concepts, gave us tasks to get practical take a way and clarified doubts to the best.
- Interns- Worked through the tasks given either individually or in a group

CHAPTER – 3

TASK PERFORMED

In this full stack development course it was divided into two parts one is front end development and one more is backend course. Training Program The internship is a platform where the trainees are assigned with the specific task. In the initial days of the internship, I was trained on the following:

- HTML
- CSS
- SQL

FRONT END

In front end part we have used HTML, CSS and Java Script has the web development languages mainly used for the design of the web page.

- HTML (Hyper Text Markup Language) The Hypertexts Markup Language, or HTML is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as CSS and scripting languages such as Java Script.
- CSS(Cascading Style Sheet) Cascading Style Sheets is a style sheet marketing used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World wide Web, alongside HTML and Java Script.
- JAVASCRIPT JavaScript, often abbreviated as JS, is a programming language that conforms to the ECMA Script specification. JavaScript is high level, often just-in-time compiled, and multiparadigm. It has curly-bracket syntax, dynamic typing, prototype-based, objectoriented, and first class function. After the completion of frontend discussion , a simple project was developed called Web page for LG company using HTML, CSS, JavaScript. It had the basic information, the photo was inserted, it also consisted of gif and a video. Navigation to second web page was also done.

BACKEND

The backend was consisted of the simple PHP and the SQL database to connect.

PHP • PHP is an acronym for "PHP: Hypertext Preprocessor" PHP is a widely-used, open source scripting language PHP scripts are executed on the server.

- PHP is free to download and use.
- PHP files can contain text, HTML, CSS, JavaScript, and PHP code
- PHP code is executed on the server, and the result is returned to the browser as plain HTML
- PHP files have extension ".php"
- PHP can generate dynamic page content, open, read, write, delete, and close files on the server, can collect form data ,can send and receive cookies ,can add, delete, modify data in your database ,can be used to control user-access ,can encrypt data With PHP you are not limited to output HTML. You can output images, PDF files, and even Flash movies. You can also output any text, such as XHTML and XML.

SQL

- SQL stands for Structured Query Language
- SQL lets you access and manipulate databases
- SQL became a standard of the American National Standards Institute (ANSI) in 1986, and of the International Organization for Standardization (ISO) in 1987
- SQL can execute queries against a database, retrieve data from a database ,insert records in a database, update records in a database, delete records from a database, create new databases, create new tables in a database, create stored procedures in a database, create views in a database, set permissions on tables, procedures, and views

CHAPTER – 4

REFLECTION NOTES

4.1 Experience

As per our experience during the internship, Tequed Labs follows a good work culture and it has friendly employees, starting from the staff level to the management level. The trainers are well versed in their fields and they treat everyone equally. There is no distinguishing between fresher graduates and corporates and everyone is respected equally. There is a lot of teamwork followed in every task, be it hard or easy and there is a very calm and friendly atmosphere maintained at all times. There is a lot of scope for self-improvement due to the great communication and support that can be found. Interns have been treated and taught well and all our doubts and concerns regarding the training or the companies have been properly answered. All in all, Knowledge Solutions India was a great place for a fresher to start career and also for a corporate to boost his/her career. It has been a great experience to be an intern in such a reputed organization.

4.2 Technical Outcomes

4.2.1 System Requirements and Specification

HARDWARE REQUIREMENTS:

- Processor : x86 or x64
- Hard Disk : 216 GB or more.
- Ram : 512 MB (minimum), 1 GB(recommended)

SOFTWARE REQUIREMENTS:

- Operating System : Windows or Linux
- Tools used : Xampp, Visual studio code

4.3 System Analysis and Design

4.3.1 Existing System

The existing website was pretty good, but the information was not up to the mark. Website for an organization is very important in all the aspects. First and foremost it was not attractive and navigation friendly. The information was not very precise and knowledgeable. Very detailed structured is preferred in the case of websites. The entire organization's performance will be viewed in the website.

4.3.2 Disadvantages of the Existing System

Information about the company was not clear, where customers had no idea of all the services of an organization.

- When we come to the subject of websites development the main thing to be focused on is the navigation, where the existing system was lagging.
- Customers would really prefer some genuine feedbacks and hence the website must contain the testimonial section which was absent in this case.
- The next aspect is the communication media, which is very important. We have huge medias to connect and hence all the required connections are not enabled.

4.3.3 Proposed System

The proposed website is the best one while in comparison with the existing one. The information was up to the mark. Website for an organization is very important in all the aspects. First and foremost it is attractive and navigation friendly. The information is very precise and knowledgeable. Very detailed structured is preferred in the case of websites. All the aspects have been met successfully.

4.3.4 Advantages of the Proposed System

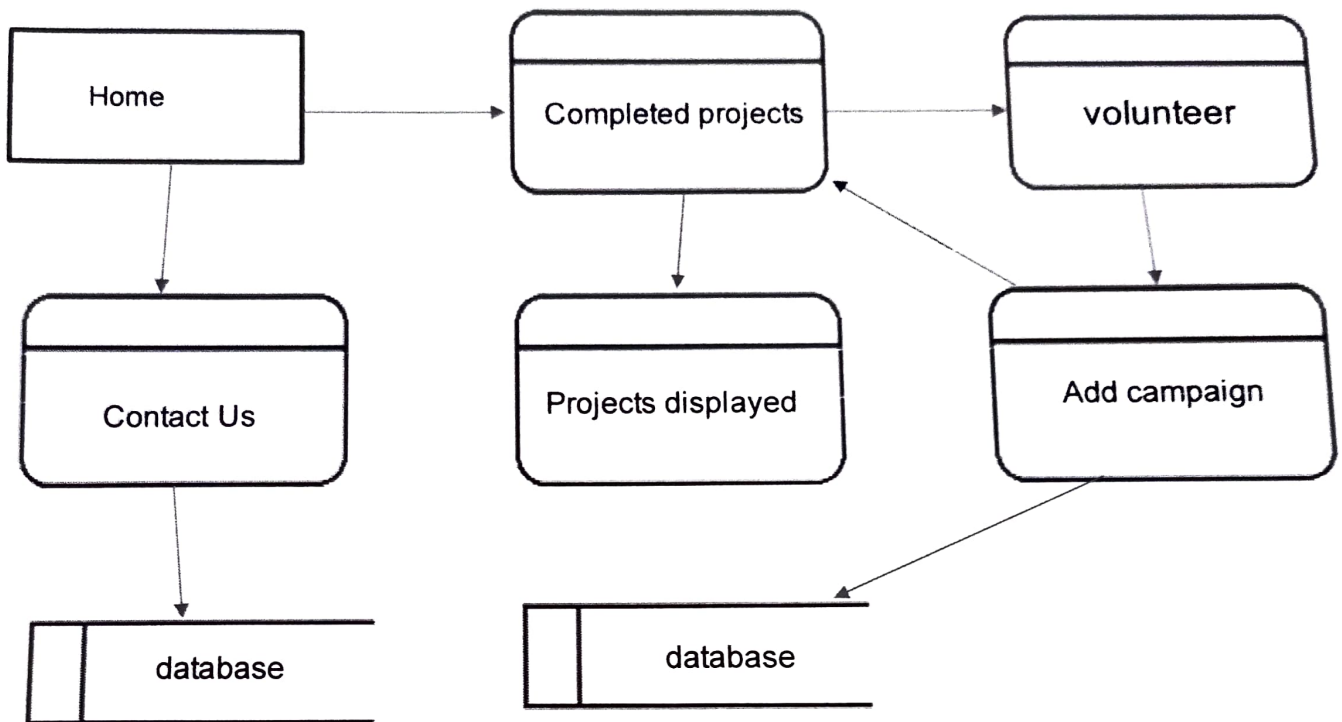
Information about the company is very clear, where customers have complete view of all the services of an organization.

➤ When we come to the subject of websites development the main thing to be focused on is the navigation, where the proposed system is perfect in this aspect.

Customers would really prefer some genuine feedbacks and hence the website must contain the testimonial section which is present in this case.

4.4.1 System Architecture

4.4.1 Data Flow Diagram



4.1 Implementation

4.2.1 Modules

1. Home
2. Completed projects
3. Volunteer
4. Add campaign
5. Contact Us

MODULES DESCRIPTION

Home: This module contains the initial page which provides the all about information about the organization.

Completed Projects: this module contains the completed project details these are stored in database and retried simultaneously.

Volunteer: This module contains a initiative way to register users for volunteering. Generally, these details when filled gets stored in database and can be retrieved by the programmer.

Add campaign: this module contains way to register campaign where all the initiative takes place and all activities are registered.

Contact Us: here all the contact are registered in the module.

4.5 Screenshots

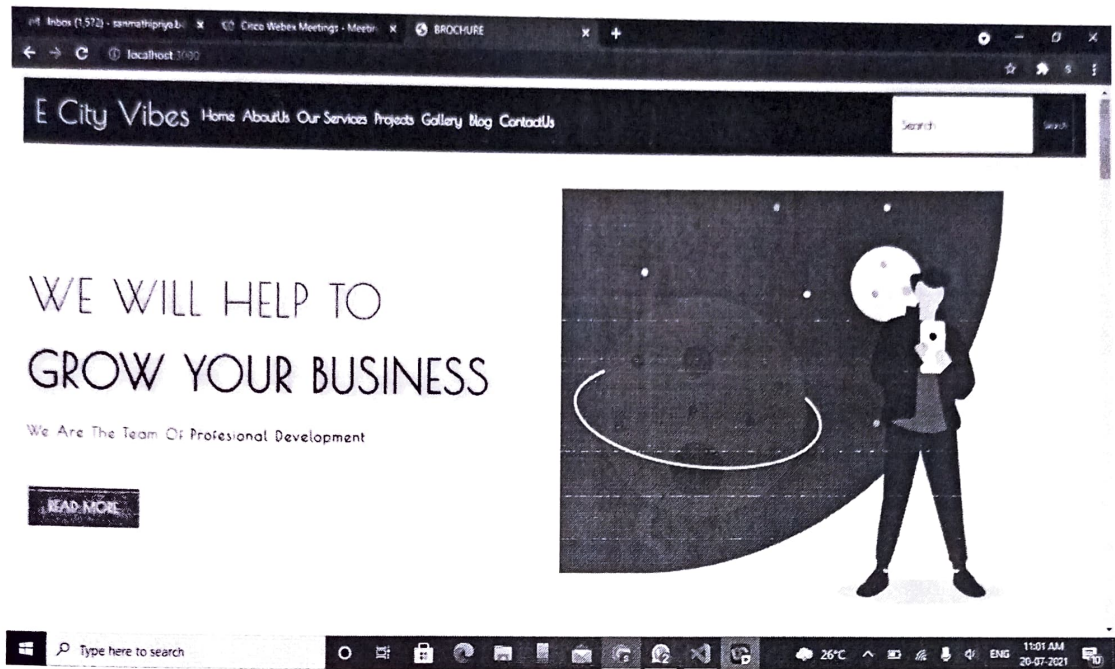


Figure 4.6.1 Home Page

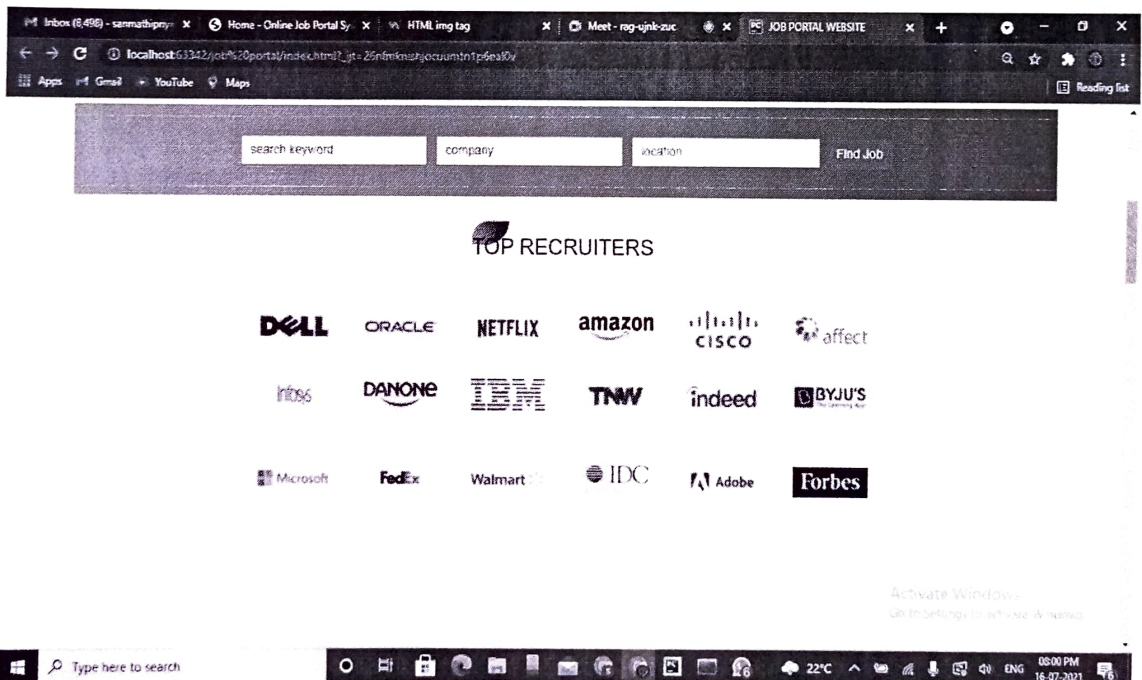


Figure 4.6.2 Search Page

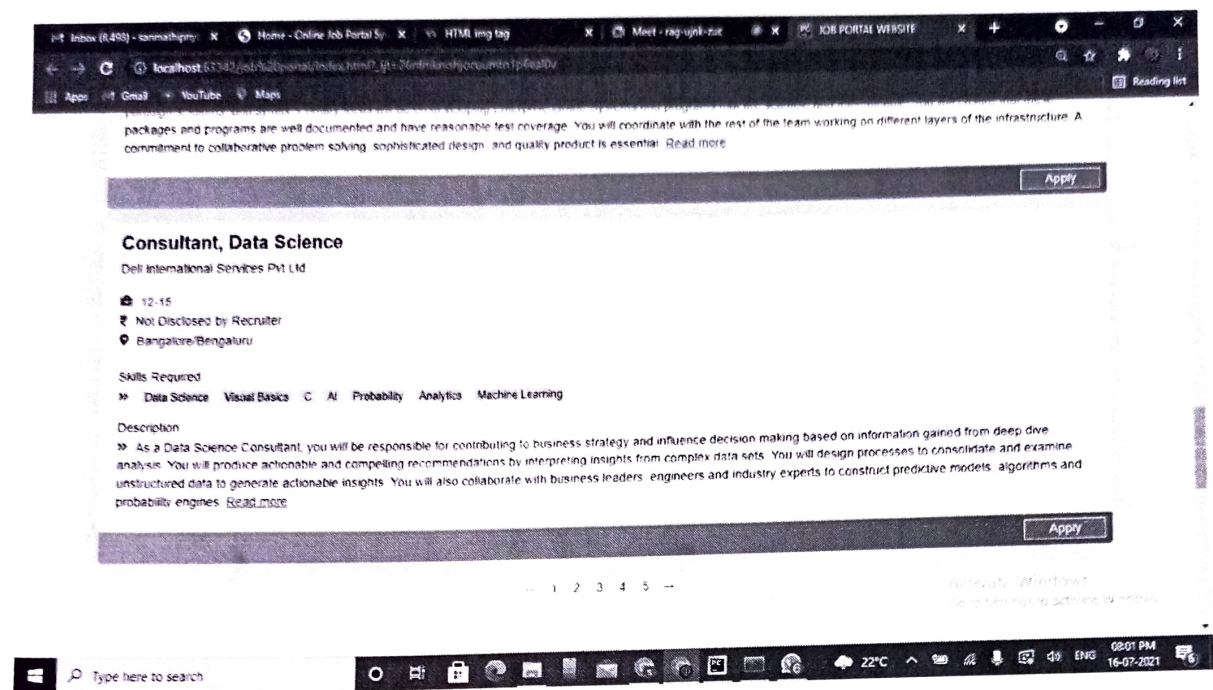


Figure 4.6.3 Input details

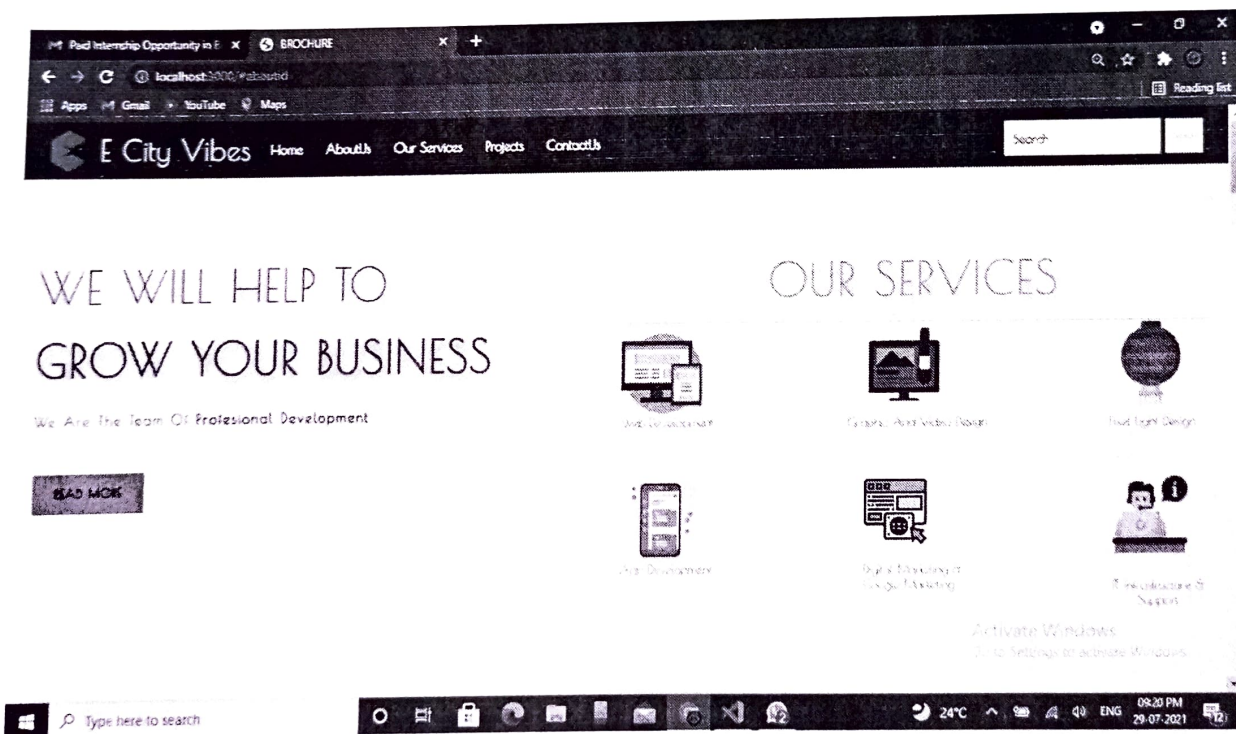


Figure 4.6.4 Service Page

CHAPTER – 5

CONCLUSION

In today's Web development, a good site design is essential. A bad design will lead to the loss of visitors and that can lead to a loss of business. In general, a good page layout must satisfy the basic elements of a good page design. This includes color contrast, text organization, font selection, style of a page, page size, graphics used, and consistency. To create a well-designed website for a specific audience, the developer needs to organize and analyze the users' statistics and the background of the users. Although it can be hard to come up with a design that is well suited to all the users, there will be a design that is appropriate for most of the audience. The better the page design, the more hits a website will get. That implies an increase in accessibility and a possible increase in business.

BIBLIOGRAPHY

1. Clark, Joe. Building Accessible Websites, New Riders Publishing, 2002.
 2. Duckett, Jon. Accessible XHTML and CSS Web Sites Problem Design Solution, Wrox, 2005
 3. Introduction to Web Accessibility, Ryerson University Pressbooks, 2019.
 4. Greg et al. Professional Web Accessibility Auditing Made Easy, Ryerson University Pressbooks, 2016.
 5. Web Accessibility for Developers, Ryerson University Pressbooks, 2019.
- Websites
 - www.google.com
 - www.w3schools.com
 - www.youtube.com

APPENDIX

Appendix A: Abbreviation

AI: Artificial intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. The term may also be applied to any machine that exhibits traits associated with a human mind such as learning and problem-solving.

ML: Machine learning (ML) is a type of artificial intelligence (AI) that allows software applications to become more accurate at predicting outcomes without being explicitly programmed to do so. Machine learning algorithms use historical data as input to predict new output values.

CSS: Cascading Style Sheets, fondly referred to as CSS, is a simply designed language intended to simplify the process of making web pages presentable. CSS allows you to apply styles to web pages. More importantly, CSS enables you to do this independent of the HTML that makes up each web page.

HTML: HTML stands for Hyper Text Markup Language. It is used to design the frontend portion of web pages using markup language. HTML is the combination of Hypertext and Markup language. Hypertext defines the link between the web pages. The markup language is used to define the text documentation within tag which defines the structure of web pages.

JS: JavaScript is a famous scripting language used to create the magic on the sites to make the site interactive for the user. It is used to enhancing the functionality of a website to running cool games and web-based software