

A
MINI PROJECT REPORT
ON
Front-End Web Development
Submitted for partial fulfillment to Requirement for the degree of
BACHELOR OF TECHNOLOGY
In
Computer Science Engineering
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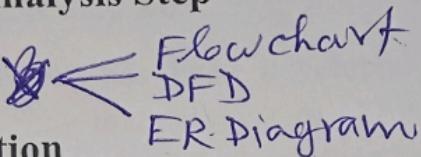
DECLARATION

I declare that the work presented in this project titled “*Front-End Web Development*” submitted to the Computer Science & Engineering , BBDNIIT LKO for the awards of the Bachelor of technology degree in Computer Science & Engineering, is our original work. I have not plagiarized or submitted the same work for the award of any other degree. In case this undertaking is found incorrect, I accept that my degree may be unconditionally withdrawn.

December,2021

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CONTENTS

- ❖ Introduction
- ❖ Objectives
- ❖ Features
- ❖ Technology
- ❖ Software Requirements
- ❖ Requirement Analysis Step
- ❖ System Design 
 - Flowchart
 - DFD
 - ER Diagram
- ❖ Design Annotation
- ❖ ~~First Looks~~ Design Flow Design Model
- ❖ ~~Future Scope of The Project~~
- ❖ ~~Conclusion~~
- ❖ Reference

INTRODUCTION

Front-End Web Development covers the part of the project which is visible to the user, i.e., it deals with the client side. Anything happening on the user side of the connection can be received or manipulated by the user. It concerns mostly the user interface and user experience of the website. How the website is presented to the user is the primary goal of the front-end. Simplicity, accessibility, proper user experience, clarity of the actions and feedback are some of the basic features which play a vital role in the best possible front-end.

A blogging platform is a software or service used to manage and publish content on the internet in the form of a blog. A blog—short for weblog—is a record of a user's entries online, usually in reverse chronological order. Learn more about blogging platforms and how they work.

The "A Blogging Platform" has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and, in some cases, reduce the hardships faced by this existing system. Moreover, this system is designed for the need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides an error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus, by this all it proves it is user-friendly. A Blogging Platform, as described above, can lead to error free, secure, reliable, and fast management systems. It can assist the user to concentrate on their other activities rather than concentrating on the record keeping. Thus, it will help organizations in better utilization of resources.

OBJECTIVE

The main objective of Front-end web development, also known as client-side development, is the practice of producing HTML, CSS and JavaScript for a website or Web Application so that a user can see and interact with them directly. Front-end web development is everything involved in programming the user interface of a web application. Typically it refers to the Hypertext Markup Language (HTML), Cascading Style Sheets (CSS) and JavaScript portion of web site production as opposed to the database or server-side programming. It encompasses everything from building a simple page of HTML text to creating complex, responsive HTML5 websites designed to be accessed via various different browsers, devices and screen sizes.

This project is a blogging platform which is a service that's used to create and manage a blog so that you can publish your ideas and words online. Blog sites are also sometimes known as CMS (Content Management System) since they let you efficiently manage content publishing.

FEATURES

Functionalities provided by The Blogging Website are as follows:

- Dark mode button
- Post Default
- Social Media Sharing Buttons
- Post Video
- Post Audio
- Post Gallery
- Post No Sidebar
- Post Left Sidebar

TECHNOLOGY

Front end:

HTML: HTML is used to create and save web documents. E.g., Visual Studio Code

CSS: (Cascading Style Sheets) Create attractive Layout

Bootstrap: Responsive design mobile friendly site

JavaScript: It is a programming language, commonly use with web browsers.

Server:

XAMPP: XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP

ABOUT HTML

The HyperText 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 Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, written using angle brackets. Tags such as `` and `<input />` directly introduce content into the page. Other tags such as `<p>` surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page.

HTML can embed programs written in a scripting language such as JavaScript, which affects the behavior and content of web pages. Inclusion of CSS defines the look and layout of content. The World Wide Web Consortium (W3C), former maintainer of the HTML and current maintainer of the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.[2] A form of HTML, known as HTML5, is used to display video and audio, primarily using the `<canvas>` element, in collaboration with javascript.

HTML can embed scripts written in languages such as JavaScript which affect the behavior of HTML web pages. Web browsers can also refer to Cascading Style Sheets (CSS) to define the look and layout of text and other material. The World Wide Web Consortium (W3C), a maintainer of both the HTML and the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.

ABOUT CSS

- Cascading Style Sheets (CSS) is a style sheet language 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 JavaScript.
- CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility; provide more flexibility and control in the specification of presentation characteristics; enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, which reduces complexity and repetition in the structural content; and enable the .css file to be cached to improve the page load speed between the pages that share the file and its formatting.
- Separation of formatting and content also makes it feasible to present the same markup page in different styles for different rendering methods, such as on-screen, in print, by voice (via speech-based browser or screen reader), and on Braille-based tactile devices. CSS also has rules for alternate formatting if the content is accessed on a mobile device.
- The name cascading comes from the specified priority scheme to determine which style rule applies if more than one rule matches a particular element. This cascading priority scheme is predictable.
- The CSS specifications are maintained by the World Wide Web Consortium (W3C). Internet media type (MIME type) text/css is registered for use with CSS by RFC 2318 (March 1998). The W3C operates a free CSS validation service for CSS documents.
- In addition to HTML, other markup languages support the use of CSS including XHTML, plain XML, SVG, and XUL.

ABOUT BOOTSTRAP

Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains CSS- and (optionally) JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components.

Bootstrap is an HTML, CSS & JS Library that focuses on simplifying the development of informative web pages (as opposed to web apps). The primary purpose of adding it to a web project is to apply Bootstrap's choices of color, size, font and layout to that project. As such, the primary factor is whether the developers in charge find those choices to their liking. Once added to a project, Bootstrap provides basic style definitions for all HTML elements. The result is a uniform appearance for prose, tables and form elements across web browsers. In addition, developers can take advantage of CSS classes defined in Bootstrap to further customize the appearance of their contents. For example, Bootstrap has provisioned for light- and dark-colored tables, page headings, more prominent pull quotes, and text with a highlight.

Bootstrap also comes with several JavaScript components in the form of jQuery plugins. They provide additional user interface elements such as dialog boxes, tooltips, and carousels. Each Bootstrap component consists of an HTML structure, CSS declarations, and in some cases accompanying JavaScript code. They also extend the functionality of some existing interface elements, including for example an auto-complete function for input fields.

The most prominent components of Bootstrap are its layout components, as they affect an entire web page. The basic layout component is called "Container", as every other element in the page is placed in it. Developers can choose between a fixed-width container and a fluid-width container.

ABOUT JAVASCRIPT

JavaScript, often abbreviated JS, is a programming language that is one of the core technologies of the World Wide Web, alongside HTML and CSS. Over 97% of websites use JavaScript on the client side for web page behavior, often incorporating third-party libraries. All major web browsers have a dedicated JavaScript engine to execute the code on users' devices.

JavaScript is a high-level, often just-in-time compiled language that conforms to the ECMAScript standard. It has dynamic typing, prototype-based object-orientation, and first-class functions. It is multi-paradigm, supporting event-driven, functional, and imperative programming styles. It has application programming interfaces (APIs) for working with text, dates, regular expressions, standard data structures, and the Document Object Model (DOM).

The ECMAScript standard does not include any input/output (I/O), such as networking, storage, or graphics facilities. In practice, the web browser or other runtime system provides JavaScript APIs for I/O.

JavaScript engines were originally used only in web browsers, but are now core components of some servers and a variety of applications. The most popular runtime system for this usage is Node.js.

Although Java and JavaScript are similar in name, syntax, and respective standard libraries, the two languages are distinct and differ greatly in design.

The use of JavaScript has expanded beyond its web browser roots. JavaScript engines are now embedded in a variety of other software systems, both for server-side website deployments and non-browser applications.

Initial attempts at promoting server-side JavaScript usage were Netscape Enterprise Server and Microsoft's Internet Information Services, but they were small niches. Server-side usage eventually started to grow in the late 2000s, with the creation of Node.js and other approaches.

Electron, Cordova, React Native, and other application frameworks have been used to create many applications with behavior implemented in JavaScript. Other non-browser applications include Adobe Acrobat support for scripting PDF documents and GNOME Shell extensions written in JavaScript.

JavaScript has recently begun to appear in some embedded systems, usually by leveraging Node.js.

SOFTWARE REQUIREMENTS

At Developer Side

During system development, I have to design both static and dynamic website interfaces, create website functions and a database system, edit photos and pictures, so it has a set of software and hardware requirements.

Hardware Used

- Intel Dual Core Processor
- 160 GB Hard Disk Drive.
- 1GB RAM.
- O.S. – Windows XP SP2

Software Used

- VS Code
- MS PAINT

At System Users Side

The following is the requirements for the system users including members and administrators.

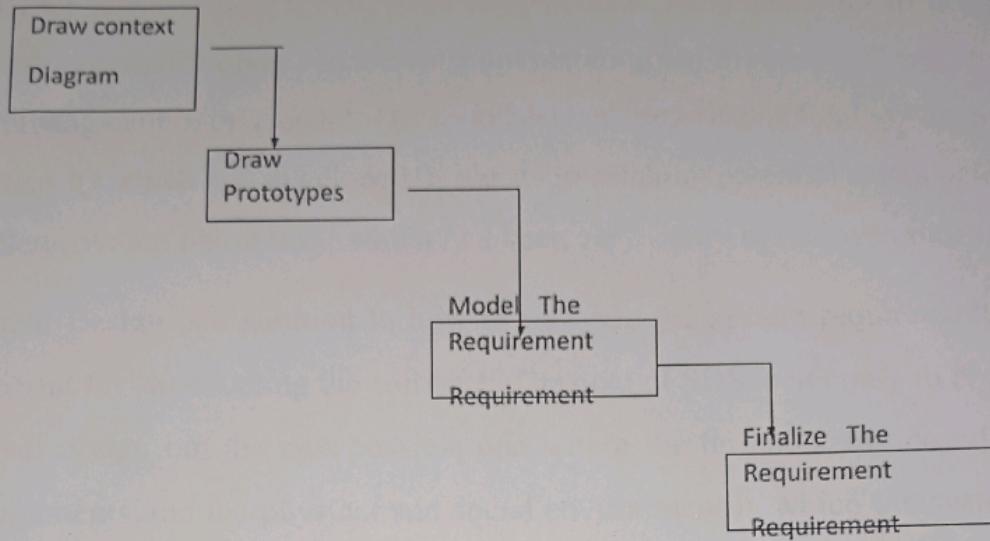
Hardware Requirements

- Intel Pentium 4 Processor
- 20 GB Hard Disk Drive.
- 256MB RAM.
- O.S. – Windows XP

Software Requirements

- Browser (IE 7.0 or above, Mozilla Firefox, Google Chrome)
- Browser Must be JavaScript Enabled

REQUIREMENT ANALYSIS STEPS



Draw Context Diagrams – The context diagram is a simple model that defines the boundaries and interfaces of the proposed system with the external world. It identifies the entities outside the proposed system that interact with the system

Development Of Prototype – One effective way to find out what the customer really wants is to construct a prototype, something that looks and preferably acts like a part of the system they want.

Model The Requirement – This process really consists of various graphical representations of functions, data entities, external entities and the relationship between them. The graphical view may help to find incorrect, inconsistent, missing and superfluous requirements.

Finalize The Requirements – After modelling the requirements we will have better understanding of the system behaviour. The inconsistencies and ambiguities have been identified and corrected.

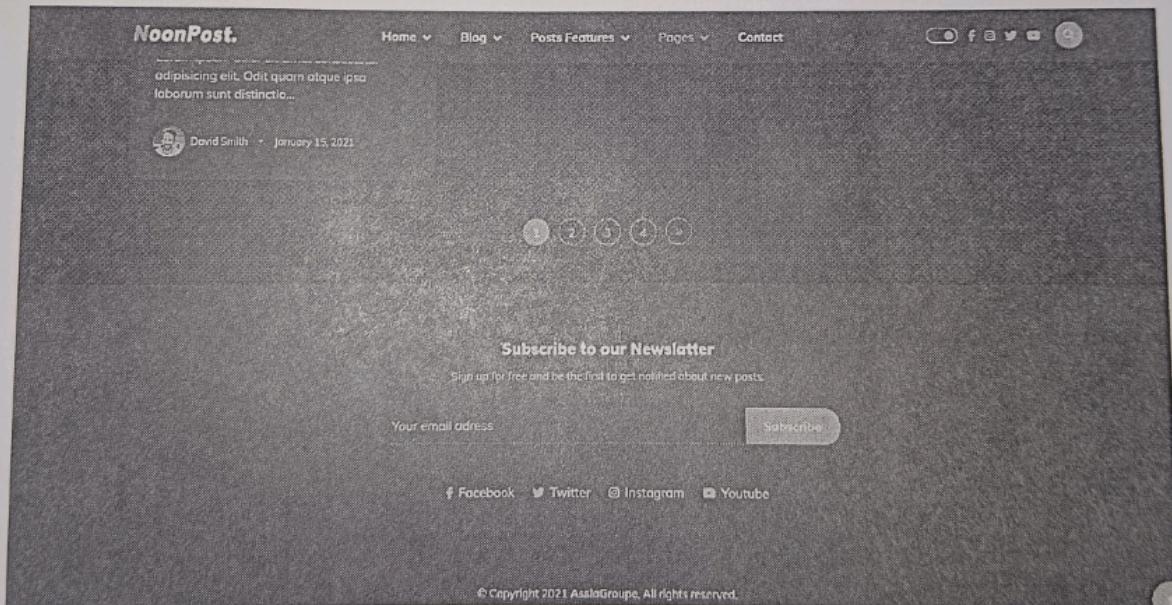
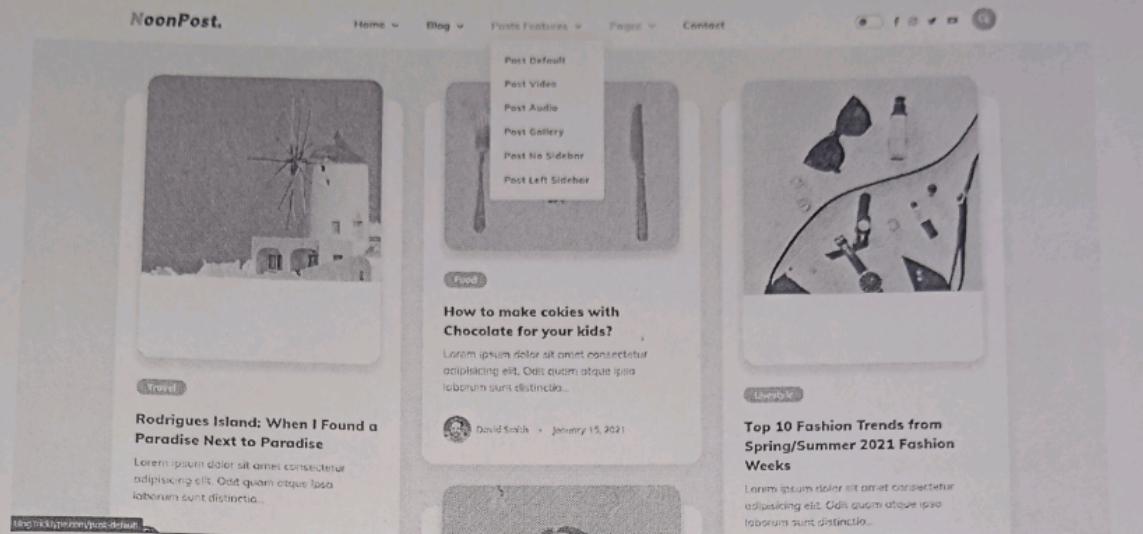
SYSTEM DESIGN

The most creative and challenging phase of the System Development Life Cycle (SDLC) is Software Design. SDS is systematic documentation of design. A design process involves “conceiving and planning out in the mind” and “making a drawing pattern or sketch”. The term “design” describes a final system and the process by which it is developed. It assists in catching potential errors before the implementation phase itself which had been very costly to remove otherwise.

System Design is a solution to how to translate the system requirement into a blueprint for constructing the software. The goal of SDS is not only to produce a correct design but the best possible one within the limitations imposed by the requirements and the physical and social environment in which the system will operate.

The system architecture description found in this document provides the reader a clear sense of how the system will be organized, how the components will interact and how the users will interface with the running software.

FIRST LOOK



FUTURE SCOPE OF THE PROJECT

As you know, the number of blogs is becoming larger day by day. So the blogs which have high quality content survive and the blogs with lower content quality will not succeed on the internet. The young generation are now moving from static content to dynamic content like flash and updating information like twitter. Twitter has a big value in social networking sites. Most bloggers share their website links on twitter. So, you have to keep in touch with twitter to have the latest news about blogs. Nowadays you have to not worry about how to get the latest information, you just have to visit the specific site of your interest and view the main page. The main page of the website gives you the latest information about the website content.

The newspaper websites have now also become like blogs. Most authors write on a weekly basis, and you can see the article of any blogger by clicking on author name. The blogging is more taking attention to tech news like iPhone, iPad, laptops, mobiles, and other technology news. I have seen some blogs discussing medical treatment and how to remain healthy and smart, so that means you can write about other information also. The scope of blogging is bright as more and more users are getting access to the internet and computers. In all types of offices, the computer is a necessary part, so visitors browse the internet to find solutions to their problems. So, the bloggers must keep an eye on the future and must write in some different way that is not common to other blogs. People are always looking for new techniques and words. Give your visitors a new way of reading and not boring content.

CONCLUSION

The “**Front End Web Development Blogging Site**” is developed using HTML, CSS, BOOTSTRAP and fully meets the objectives of the system for which it has been developed. The system has reached a steady state where all bugs have been eliminated. The system is operated at a high level of efficiency and all the admin and users associated with the system understand its advantage. The system solves the problem. It was intended to solve the requirement specification.