

Project Report CA: 03 (INT219)

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A PROJECT REPORT (CA 03)

TITLE: PROPERTY WEBSITE

Submitted in partial fulfilment of the requirements for the award of degree of

Bachelor of Technology

(Computer Science and Engineering)

COURSE CODE: INT219 (FRONT END DEVELOPER)

LOVELY PROFESSIONAL UNIVERSITY

PHAGWARA, PUNJAB



Month: November Year: 2022

SUBMITTED BY

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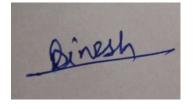
STUDENT DECLARATION

To whom so ever it may concern

I **DINESH KUMAR**, 12011631, hereby declare that I have completed my CA03 PROJECT in November 2022 under the guidance of DR ALLAM MOHAN. I assure you that the work done by me on **CA 03 PROJECT**, is a record of original work for the partial fulfilment of the requirements for the award of the **Bachelor of Technology (Computer** Science and Engineering) degree.

Name of the student: Dinesh Kumar

Registration Number: 12011631



Signature of the student:

ACKNOWLEDGEMENT

I want to express my sincere gratitude and thanks to our course instructor of INT219(Front End Developer), Dr. Allam Mohan for providing this wonderful opportunity to work on **FRONT END DEVELOPMENT** project during this course.

I again express my sincere thanks to Dr. Allam Mohan for his cooperative attitude and consistence guidance, due to which I was able to complete my training successfully.

Finally, I also like to thank my colleagues for guiding me in making this project and make this project report successful.

Dinesh Kumar

B. Tech CSE (3rd Year)

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INTRODUCTION TO THE PROJECT

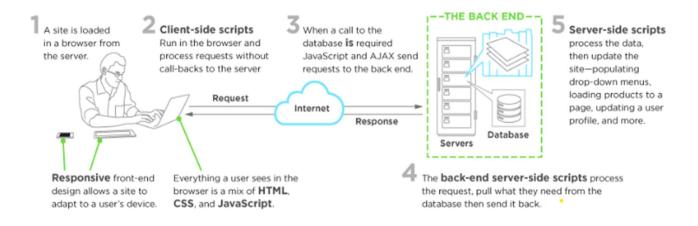
(FRONT END WEB DEVELOPMENT)

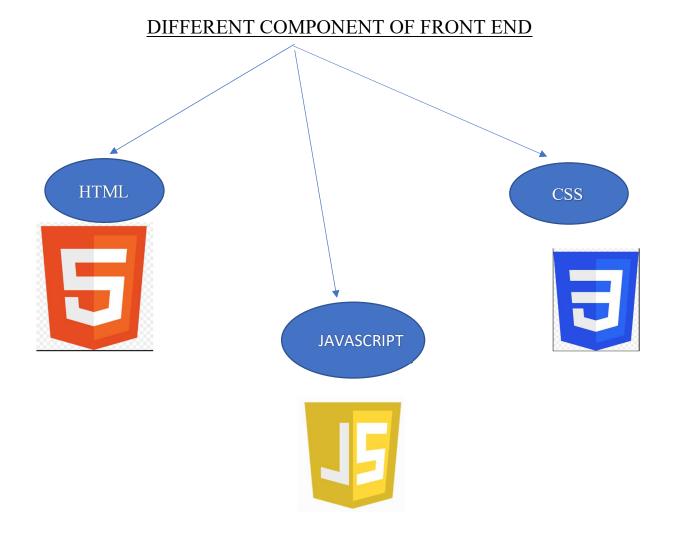
Front-end web development is the development of the graphical user interface of a website, with HTML, CSS, and JavaScript, so that users can view and interact with that website.

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. The challenge associated with front end development is that the tools and techniques used to create the front end of a website change constantly and so the developer needs to constantly be aware of how the field is developing.

The objective of designing a site is to ensure that when the users open up the site, they see the information in a format that is easy to read and relevant. This is further complicated by the fact that users now use a large variety of devices with varying screen sizes and resolutions thus forcing the designer to take into consideration these aspects when designing the site. They need to ensure that their site comes up correctly in different browsers (cross-browser), different operating systems (cross-platform) and different devices (cross-device), which requires careful planning on the side of the developer.

A front-end developer architects and develops websites and applications using web technologies (i.e., HTML, CSS, DOM, and JavaScript), which run on the Open Web Platform or act as compilation input for non-web platform environments





Technology Learnt

I learnt front end web development from Board infinity. I learnt these technologies during the period of one month (1June to 30 June).

- HTML
- CSS

- JavaScript
- Bootstrap

BASIC HARDWARE AND SYSTEM REQUIREMENT

Operating System

- Windows 7, Windows 8, Windows 10 and Windows 11.
- Mac OSX 10.8, 10.9, 10.10, 10.11

Hardware

- Processor (CPU) with 2 gigahertz (GHz) frequency or above.
- A minimum of 2 GB of RAM.
- Monitor resolution 1024 X 786 or higher.
- A minimum of 20 GB of available space on the hard disk.

Browser

- Chrome* 36+
- Edge* 21+
- Mozilla Firefox 31+
- Internet Explorer 11+ (windows only)
- Safaei 6+ (MacOS only)

Website is basically laid out in three fundamental layers:-

- 1. **Structure Layer: -** We use HTML to give structure and semantic meaning to the content.
- 2. **Presentation Layer:** Use CSS to give a layout and visual presentation to the content.
- 3. **Behaviour Layer:** Use JavaScript to give additional interaction to the website.

HTML

HTML stands for Hypertext markup language for creating webpage. HTML basically focus on the structure of the webpage means where the content should be visible in our webpage, what is its position etc.

- HTML is the standard markup language for creating web page.
- HTML describe the structure of the web page
- Tag based language.
- Creates elements in the webpage.
- Creates a basic appearance to the webpage
- HTML consists of a series of element.
- HTML element tell the browser how to display the content.
- HTML element label pieces of content such as "this is heading", "this is paragraph", "this is link" etc.

Features Of HTML

- Markup language.
- Executed by all browsers
- Not a case sensitive language.
- With the help of HTML, you can create your own website.
- HTML is easy to learn.

Note: - HTML files are saved with .html or .htm extension.

History of HTML

Developed by Tim Berners Lee in 1991

- HTML 1.0: Late 1991
- HTML 2.0: 1995-11-24
- HTML 3.0: 1997-14-1
- HTML 4.0: 1997-12-18
- HTML 5.0: 2014-10-28

• HTML 5.1: 2016-11-1



This image is also defining the HTML that It help to define the structure part only like where should our hand present, head present, legs present etc. It does not focus on colouring or styling part and functioning part.

Structure of HTML

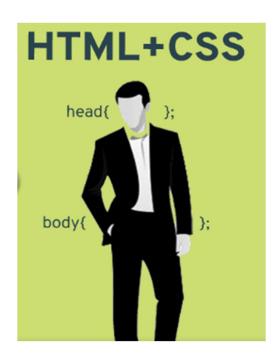
```
<h1>My First Heading</h1>
My first paragraph. 
</body>
</html>
```

- The <!DOCTYPE html> declaration defines that this document is an HTML5 document.
- The <html> element is the root element of an HTML page.
- The <head> element contains meta information about the HTML page.
- The <title> element specifies a title for the HTML page (which is shown in the browser's title bar or in the page's tab).
- The <body> element defines the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.
- The <h1> element defines a large heading.
- The element defines a paragraph.

CSS

- CSS is the key presentation technology that is used in website design.
- Property-based language.
- creates styles in the web page
- Adds beauty to the web page
- CSS stands for Cascading style sheets. CSS is a standard style language used for describing the presentation (i.e. the layout and formatting) of the web pages.
- Prior to CSS, nearly all the presentational attributes of HTML documents were contained within the
 HTML markup (specially inside the HTML tags); all the fonts' colours, background styles, element
 alignments, borders and sizes had to be explicitly described within the HTML.
- To solve this problem CSS was introduced in 1996 by the world wide web consortium (W3C), which also maintains its standard.
- CSS was designed to enable the separation of presentation and content.
- Now web designers can move the formatting information of the web pages to a separate style sheet which result in considerably simpler HTML markup and better maintainability.
- CSS3 is the latest version of the CSS specification. CSS3 adds several new styling features and improvements to enhance the web presentation capabilities.
- It describes how HTML elements are to be displayed on screen, paper, or in other media.

- It is used to define styles for your web pages, including the design, layout and variations in display for different devices and screen sizes.
- It can control the layout of multiple web pages all at once.
- A CSS rule-set consists of a selector and a declaration block: CSS selector.
- The selector points to the HTML element you want to style.
- The declaration block contains one or more declarations separated by semicolons.
- Each declaration includes a CSS property name and a value, separated by a colon.
- A CSS declaration always ends with a semicolon, and declaration blocks are surrounded by curly braces



This picture clearly defining CSS that how CSS design or style the normal html structure in the beautiful or attractive body.

What we can do with CSS

- You can easily apply same style rule on multiple elements.
- You can control the presentation of multiple pages of a website with a single style sheet.
- You can present the same page differently on different devices.
- You can style dynamic states of elements such as hover, focus, etc that isn't possible otherwise.
- You can change the position of an element on web page without changing the markup.
- You can alter the display of existing HTML element.

- You can transform element like scale, rotate, skew, etc. in 2D or 3D space.
- You can create animation and transform effects without using any JavaScript.
- You can create print friendly version of your webpage.

Advantages of Using CSS

- CSS Save Lots of Time: CSS gives a lot of flexibility to set the style properties of an element. You can write CSS once; and then the same code can be applied to the groups of HTML elements and can also reused in multiple HTML pages.
- Easy Maintenance: CSS provide an easy means to update the formatting of the document and to maintain the consistency across multiple documents. Because content of the entire set of web pages can be easily controlled using one or more style sheets.
- Pages Load Faster: CSS enables multiple pages to share formatting information, which reduces
 complexity and repetition in the structural contents of the documents, It significantly reduces the file
 transfer size, which result in a faster page loading.
- Superior styles to HTML: CSS has much wider presentation capabilities than HTML and provide much better control over the layout of your web pages. So you can give far better look to your web pages in comparison to the HTML presentational element and attributes.
- Multiple Device Compatibility: CSS also allows web pages to be optimized for more than one
 type of devices or media. Using CSS the same HTML document can be presented in different
 viewing styles for different devices such as desktop, cell phones etc.

CSS Syntax

- CSS is property-based language or key-value pair. We must define the property and the value we need to assign it.
- A CSS stylesheet consists of set of rules that are interpreted by the web browser and then applied
 to the corresponding elements such as paragraphs, heading etc in the document.
- A CSS rule have two main parts a selector and one or more declarations.



- The selector specifies which element or elements in the HTM page the CSS rule applies to.
- Whereas the declaration within the block determines how the elements are formatted on a webpage.
- Each declarations consists of a property and a value separated by a colon (:) and ending with semi colon (;) and the declarations groups are surrounded by curly braces {};
- The property is the style attribute you want to change; they could be font, color, background etc.
- Each property has value, for example color property can have either blue or #0000ff etc.

CSS can be used to style HTML elements in three ways:

- 1. **Inline:** CSS rule applied as an attribute to the HTML element. Has the most precedence.
- 2. **Internal:** Many CSS rules can be written inside the same HTML file for elements. It has less precedence than the above one.
- 3. **External:** CSS rules are written in separate file and then liked to the respective HTML file. Has the less precedence.

Limitations of CSS

- Ascending by selector is not possible
- Limitations of vertical control
- No expressions
- No column declaration
- Pseudo-class not controlled by dynamic behaviour.
- Rules, styles, targeting specific text not possible.

JAVASCRIPT

JavaScript is used to create client-side dynamic pages. It helps to add functionality in the webpage.

JavaScript is an object-based scripting language which is lightweight and cross-platform.

JavaScript is not a compiled language, but it is a translated language. The JavaScript Translator (embedded in the browser) is responsible for translating the JavaScript code for the web browser.

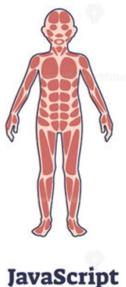
What is JavaScript??

JavaScript is worldwide popular language. JavaScript (js) is a light-weight object-oriented programming language which is used by several websites for scripting the webpages. It is an interpreted, full-fledged programming language that enables dynamic interactivity on websites when applied to an HTML document. It was introduced in the year 1995 for adding programs to the webpages in the Netscape Navigator browser. Since then, it has been adopted by all other graphical web browsers. With JavaScript, users can build modern web applications to interact directly without reloading the page every time. The traditional website uses js to provide several forms of interactivity and simplicity.

Although, JavaScript has no connectivity with Java programming language. The name was suggested and provided in the times when Java was gaining popularity in the market. In addition to web browsers, databases such as CouchDB and MongoDB uses JavaScript as their scripting and query language.

History of JS

- JavaScript was invented by Brendan Eich, in 1995, and become ECMA standard in 1997.
- ECMAScript is the official name of the language.
- ECMAScript versions have been abbreviated to ES1, ES2, ES3, ES4, ES5, and ES6.
- Since 2016 new version are named by year (ECMAScript 2016/2017/2018).

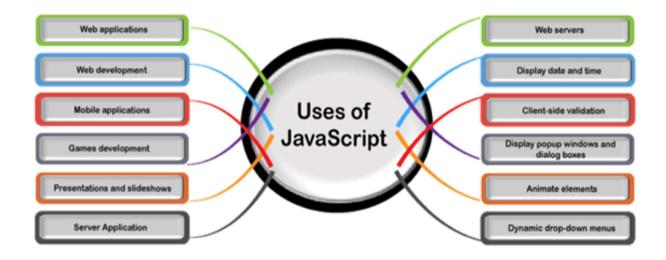


This picture is defining the JavaScript that JavaScript make web pages dynamic by adding functionalities.

FEATURES OF JAVASCRIPT

- All popular web browsers support JavaScript as they provide built-in execution environments.
- JavaScript follows the syntax and structure of the C programming language. Thus, it is a structured programming language.
- JavaScript is a weakly typed language, where certain types are implicitly cast (depending on the operation).
- JavaScript is an object-oriented programming language that uses prototypes rather than using classes for inheritance.
- It is light weighted and interpreted language.
- It is case sensitive language.
- JavaScript is supportable in several operating system including, windows, macOS, etc.
- It provide good control to the user over web browsers.

Uses Of JavaScript



Applications Of JavaScript

JavaScript is used to create interactive websites. It is mainly used for:

- Client-side validation
- Dynamic drop-down menu.
- Displaying date and time.
- Displaying pop-up windows and dialog boxes(like alert dialog box, confirm dialog box, and prompt dialog box).
- Displaying clock etc.

BOOTSTRAP



Bootstrap is an open-source CSS framework developed by the team at Twitter. They used HTML, CSS, JS for building user defined interface! We can say it "Front-end-framework".

Bootstrap is a CSS based framework used to make website responsive. The purpose of Bootstrap is to make faster responsive website, which will adjust itself on all devices like Mobile phones, tablets, computer, Laptop and all. Bootstrap is the world's most popular front-end framework to develop mobile first, responsive website very easily. It is very easy to get started with it, it is highly customizable, and you can develop website very quickly. The bootstrap community is huge as well.

Earlier whenever we write CSS we used to define all the properties in the separate CSS file that we want to attach the separate CSS file, wherein Bootstrap they have already written some classes in the bootstrap.css file. You must import that CSS file and use their classes.

In addition, Bootstrap requires jQuery to work. jQuery is a popular and widely used JavaScript library which both simplifies and adds JavaScript cross-browser compatibility.

Bootstrap can be boiled down to three main files:

- Bootstrap.css-a CSS framework
- Bootstrap.js- a JavaScript/jQuery framework
- Glyph icons a font (an icon font set)

In addition, Bootstrap requires jQuery to work. jQuery is a popular and widely used JavaScript library which both simplifies and adds JavaScript cross-browser compatibility.

ADVANTAGES OF BOOTSTAP

- 1. **Saves Time:** This is the biggest advantage of bootstrap as it makes the development fast. We can create the website in short span of time as there are predefined classes, we don't need to write property. And as it is self-responsive it saved time.
- 2. Easy to Use: If you have basic knowledge of HTML and CSS, then you can easily use Bootstrap.
- 3. **Responsive Design:** Through bootstrap you can easily create responsive design. If your website is responsive then it adjusts itself according to the screen size in any platform or device like desktop, laptop, mobile etc.
- 4. **Cross Browser Compatible:** Bootstrap is designed in such a way that our web-page will look the same in almost all modern browsers like Firefox, Chrome, Internet Explorer, Opera etc
- 5. **Open source:** The best thing about it is that you can use it for free.
- 6. **Customization:** you can use bootstrap class but if you want to add some other styling from your own you can change it with the help of CSS.

<u>jQuery</u>

jQuery is a fast, small, and feature-rich JavaScript library. It makes things like HTML document traversal and manipulation, event handling, animation, and Ajax much simpler with an easy-to-use API that works across a multitude of browsers. With a combination of versatility and extensibility, jQuery has changed the way that millions of people write JavaScript.

Why jQuery?

There are lots of other JavaScript libraries out there, but jQuery is probably the most popular, and also the most extendable.

Many of the biggest companies on the Web use jQuery, such as:

- Google
- Microsoft
- IBM
- Netflix

<u>JSON</u>

- JSON stands for JavaScript Object Notation
- JSON is a lightweight data-interchange format
- JSON is plain text written in JavaScript object notation
- JSON is used to send data between computers
- JSON is language independent

Why Use JSON?

The JSON format is syntactically similar to the code for creating JavaScript objects. Because of this, a JavaScript program can easily convert JSON data into JavaScript objects.

Since the format is text only, JSON data can easily be sent between computers, and used by any programming language.

JavaScript has a built-in function for converting JSON strings into JavaScript objects:

JSON.parse()

JavaScript also has a built-in function for converting an object into a JSON string:

JSON.stringify()

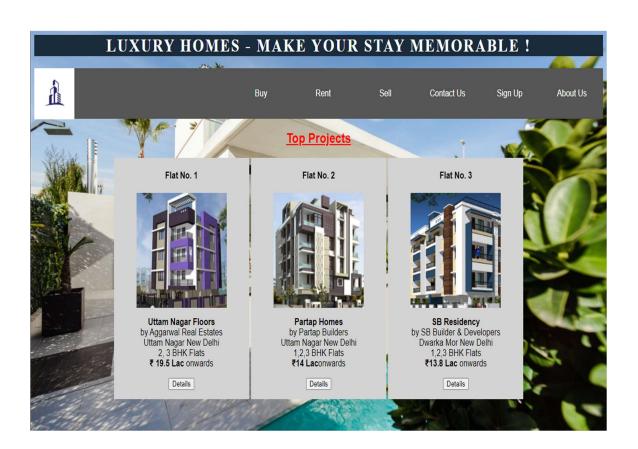
PROJECT (Property Website)

ABOUT PROJECT

I made this project entitled "<u>PROPERTY WEBSITE</u>". In this project, we have made a property website which provides the user / customer with different facilities on a single website. In our website we have designed the seven webpages in total namely 'HOME', 'BUY', 'RENT', 'SELL', 'CONTACT US', 'SIGN UP/LOGIN' and 'ABOUT US' page. This single website entitles users to buy or sell their property and they can also give their built properties on rent.

HOME PAGE:

The 'HOME' page of our website provides user with the menu bar through which user can navigate to any of the pages available in the website. The options available in menu bar are: 'Buy', 'Rent', 'Sell', 'Contact Us', 'Sign Up', 'About Us'. The logo of our company "LUXURY HOMES" is also there in top left of the menu bar. Some of the top projects that our company hold is also there.



BUY PAGE

The **BUY** Page provides the details of some of the top apartments / flats present at different locations so that user can buy them and make a good choice among them.

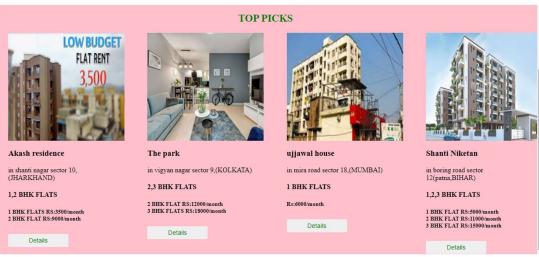




RENT PAGE:

The RENT page has been created in keeping the need of the people in mind that user may opt to live on rent, so the different specifications of the flat are mentioned . accordingly, user can make the choice.





SELL PAGE

The <u>SELL</u> Page make user to sell their property if for any reason he /she wish to do so. In this page user can fill the form providing the necessary information that is present there. The information provided by the user will be displayed to the other customers by which he/she can sell their property to the customers



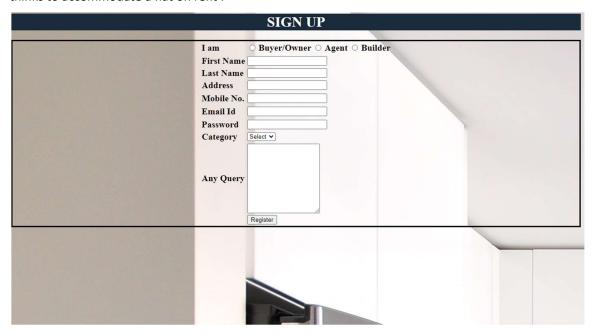
CONTACT US Page

Inside CONTACT US Page user can always reach out to us by mentioning their corrected details that is mentioned there. Our concerned person will help the user to resolve their queries.



SIGN UP PAGE

The user has to sign up if not already done inside the SIGN UP Page if he/she wishes to sell / buy their property or thinks to accommodate a flat on rent .



ABOUT US PAGE

Here comes another page which is **ABOUT US** Page in which user can find about our website and also find the reason for believing on us and making their first choice as 'LUXURY HOMES'



ABOUT US

Luxury Homes provides you the best rooms and houses available at a very affordable price. You would remember your stay forever with the Luxury Homes. The comfort and pleasure that we provide you is inexplicable. Our apartments or rooms are located in the lapse of nature where nature continuously showers its love and thus help people remembering their comfort and experience that they have with us!

"Put your efforts forward and give us chance to make your journey memorable."

What Makes US Better Choice?

- Affordable Rates
- Easily Accessible 24 X 7 Hours booking facility
- Well refurbished rooms with attached balcony in rental rooms
- Fully comfortable : Better experience for your stay
- Located in friendly environment

CONCLUSION

It was a wonderful learning experience for me while working on this project. This project took me through the various phases of project development and gave me real insight into the world of software engineering. The joy of working and the thrill involved while tackling the various problems and challenges gave me a feel of the developers' industry.

It was due to this project I came to know how website is designed.

GITHUB LINK

https://github.com/dinesh-2020-code/INT219-CA-03/upload/main

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- 2. https://www.w3schools.com/
- 3. https://www.geeksforgeeks.org/
- 4. https://www.tutorialspoint.com/index.htm
- 5. https://www.javatpoint.com/



