REAL ESTATE WEBSITE

Project submitted to

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY

In Partially fulfillment of requirement for the award of degree of

BACHELOR OF TECHNOLOGY

Under the

Faculty of Engineering and Technology

In the discipline

Computer Engineering

By

Shaikh Zoheb Ahamad Mohd Naeem

Shaikh Mohd Kaif Nabedoddin

Shahid Qamar Abdul Khalique Maniyar

Khan Ubaid Firoz

L.Y. COMPUTER

Guide

Nilesh Vani

Assistant Professor

Department of Computer Engineering

Godavari Foundation's

GODAVARI COLLEGE OF ENGINEERING, JALGAON

(NAAC Accredited)

(An affiliated to Dr. Babasaheb Ambedkar Technological University)

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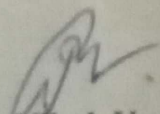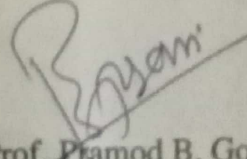### (An affiliated to Dr. Babasaheb Ambedkar Technological University)
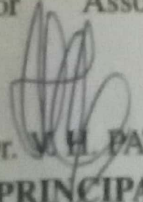
CERTIFICATE

This is to certify that the L.Y.Computer Project "REAL ESTATE WEBSITE" submitted by Shaikh Zoheb Ahemad Mohd Naeem, Shaikh Mohd Kaif Nakshoddin, Shahid Qamar Abdul Khalique Maniyar, Khan Ubaid Firoz In Partially fulfillment of the degree of BACHELOR OF TECHNOLOGY in the Department of COMPUTER ENGINEERING, Godavari College of Engineering, Dr. Babasaheb Ambedkar Technological University, Lonere is a bonafide record of work carried out by him in the Department of Computer Engineering, Dr. Babasaheb Ambedkar Technological University, Lonere under my guidance and supervision. In my opinion this work has attained the standard fulfilling the requirements of the regulations of the University.

Date:

Place:Jalgaon

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DECLARATION / UNDERTAKING

We here by declare that the work presented in this Project " REAL ESTATE WEBSITE"
was carried out by us under the supervision of guide from January Semester-VIII.
This work or any part of this work is based on original research and has not been sub-
mitted by us to any University/Institution for the award of any degree.

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Abstract

The Real Estate Website is an interactive, effective and revenue-generating website designed for the Real Estate Industry. The main objective of this application is to help the Real Estate Company to display unlimited number of property listings on the website. The primary focus is to get familiar with HTML , CSS , JAVASCRIPT , BOOTSTRAP to provide a featured GUI which contains sophisticated search engine for buyer's to search for property listings specific to their needs. The search engine not only provides an easy and convenient way to search for listings but also display the entire list of properties in a customized grid format. The buyer can then view the complete specification of each property listing with its features, description and photographs.

Chapter 1

INTRODUCTION

There are large numbers of commercial real estate online information service providers offering a suite of commercial properties and services tailored to the national and local needs of the commercial investments industry. These online marketplaces have thousands of commercial real estate properties for sale and lease under various categories including commercial office space, industrial, single - family, multi - family, land, etc both for sale and lease as well. There purpose it to attract community of industry professionals including investors, property managers, landlords, appraisers, local and national buyers to select the properties with desired features.

In this increasingly demanding scenario for a platform which could help buyers to have a look at the available property listings with all its photographs, necessary specification and description, this application is an effort to provide such a web interface with some attractive and innovative features using the latest technologies

Real estate sector is one of the most globally recognized sectors. It comprises of four sub sectors - housing, retail, hospitality, and commercial. The growth of this sector is well complemented by the growth in the corporate environment and the demand for office space as well as urban and semi-urban accommodations. The construction industry ranks third among the 14 major sectors in terms of direct, indirect and induced

effects in all sectors of the economy.

In India, the real estate sector is the second-highest employment generator, after the agriculture sector. It is also expected that this sector will incur more non-resident Indian (NRI) investment, both in the short term and the long term. Bengaluru is expected to be the most favoured property investment destination for NRIs, followed by Ahmedabad, Pune, Chennai, Goa, Delhi and Dehradun.

Demand for residential real estate revived in Q4 FY21 as homebuyers took advantage of low mortgage rates and incentives rendered by developers. Residential sales in this quarter recovered to >90 Percent volumes recorded in 2020 across the top seven cities. In FY21, the top seven listed real estate companies collectively sold 32.61 million sq. ft. of residential space, up 7 Percent from FY20. Within the next two years, these seven companies plan to launch 92.5 million sq. ft. of additional residential space.

Home sales volume across seven major cities in India surged 113 Percent YoY to reach 62,800 units in the third quarter 2021, from 29,520 units in the same period last year, signifying healthy recovery post the strict lockdown imposed in the second quarter due to the spread of COVID-19 in the country.

According to the Economic Times Housing Finance Summit, about 3 houses are built per 1,000 people per year compared with the required construction rate of five houses per 1,000 population. The current shortage of housing in urban areas is estimated to be 10 million units. An additional 25 million units of affordable housing are required by 2030 to meet the growth in the country's urban population.

Chapter 2

AIMS AND OBJECTIVES

2.1 Aim

(1) In this project we are going to develop a Real Estate Website in which admin user can change or update the information regarding property selling and buying and cancellation.

(2) The System is very useful for our company House-Finder who develop apartments,hotels,villa,residential properties and commercial properties.Companies or individual agents can also advertise their properties.

(3) Our Website portal provides us user current updates and notification as soon as the properties added in our timeline .

2.2 Objective

(1)The Admin should maintain property.Admin classifies property type as it is residential or commercial property.

(2) The Admin user can inform their agents for regarding to property and update the information regarding property and cancellation of property or changing buyer choice.

(3) The system is very useful for the companies or builders that can post and edit their

properties and their personal info and admin can monitor records of all of them.

2.3 Application And Scope

This website is a online real estate website through which individual agents or buyer can maintain their property document keeping and managing property registration and also access its information and manage all the adding, updating, deleting some of its tasks..

The real of World Wide Web have spread across millions of household, so naturally, Internet has become by far the best platform for real estate marketing today.. Now a days when everything is online, how is it possible that real estate left web application behind? There are lots of real estate companies who advertise their property online so ideal behind developing this application is that their property can also sell, or buy or even rent property using this. These applications are not widely popular but in future, they have large scope of growth.

This website is an online real estate management through which individual agents or buyer can maintain their property document keeping and managing property registration and also access its information and manage all the adding, updating, deleting the advertisement and some of its tasks. The Admin user can inform their agents regarding property details and update the information regarding the cancellation of property or changing according to the buyer's choice.

The system is very useful for the companies or builders that can post and edit the information of their properties and their personal information and admin can monitor records of all of them. The system is also useful which also keeps track of account details of buyers and Investors and also RES Industry.
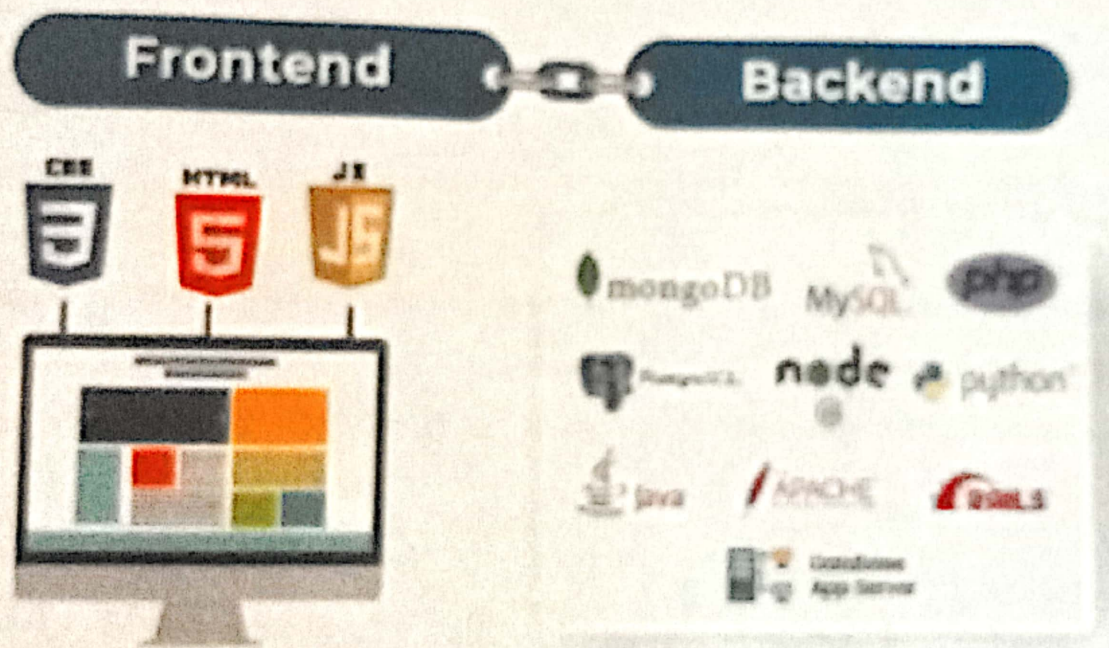
Chapter 3

TECHNOLOGY USES

Figure 3.1: Frontend and Backend Technology

3.1 Front End Development

3.1.1 HTML

Html is an acronym which stands for Hyper Text Markup Language which is used for creating web pages and web applications. Let's see what is meant by Hypertext Markup

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Language, and Web page.

Hyper Text: HyperText simply means "Text within Text." A text has a link within it, is a hypertext. Whenever you click on a link which brings you to a new webpage, you have clicked on a hypertext. HyperText is a way to link two or more web pages (HTML documents) with each other.

Markup language: A markup language is a computer language that is used to apply layout and formatting conventions to a text document. Markup language makes text more interactive and dynamic. It can turn text into images, tables, links, etc.

Web Page: A web page is a document which is commonly written in HTML and translated by a web browser. A web page can be identified by entering an URL. A Web page can be of the static or dynamic type. With the help of HTML only, we can create static web pages.

Hence, HTML is a markup language which is used for creating attractive web pages with the help of styling, and which looks in a nice format on a web browser. An HTML document is made of many HTML tags and each HTML tag contains different content.

3.1.2   CSS

Cascading Style Sheets, fondly referred to as CSS, is a simple design language intended to simplify the process of making web pages presentable.CSS handles the look and feel part of a web page. Using CSS, you can control the color of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what background images or colors are used, layout designs,variations in display for different devices and screen sizes as well as a variety of other effects.

CSS is easy to learn and understand but it provides powerful control over the presentation of an HTML document. Most commonly, CSS is combined with the markup

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languages HTML or XHTML.

3.1.3 JAVASCRIPT

Javascript is object oriented programming language commonly use to create interactive effects within web browsers.

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.

3.1.4 BOOTSTRAP

Bootstrap is the most popular HTML, CSS and JavaScript framework for developing a responsive and mobile friendly website. It is absolutely free to download and use. It is a front-end framework used for easier and faster web development. It includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many others. It can also use JavaScript plug-ins. It facilitates you to create responsive designs.

Why use Bootstrap ?

Following are the main advantage of Bootstrap:

It is very easy to use. Anybody having basic knowledge of HTML and CSS can use Bootstrap. It facilitates users to develop a responsive website. It is compatible on most of browsers like Chrome, Firefox, Internet Explorer, Safari and Opera etc.

3.2 Back End Development

3.2.1 FIREBASE

Firebase is a product of Google which helps developers to build, manage, and grow their apps easily. It helps developers to build their apps faster and in a more secure way. No programming is required on the firebase side which makes it easy to use its features more efficiently. It provides services to android, ios, web, and unity. It provides cloud storage. It uses NoSQL for the database for the storage of data.
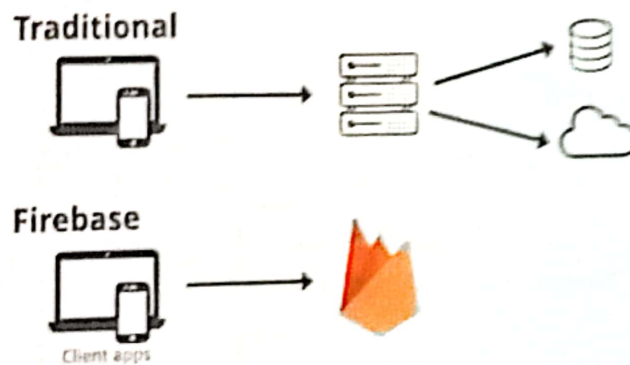

Figure 3.2: Firebase

Features of Firebase: Mainly there are 3 categories in which firebase provides its services
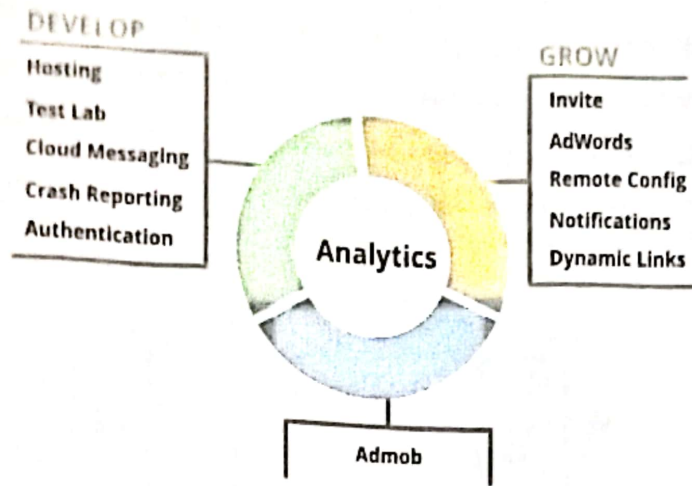
Figure 3.3: Feature of Firebase

Build better applications This feature mainly includes backend services that help developers to build and manage their applications in a better way. Services included under this feature are :

Realtime Database: The Firebase Realtime Database is a cloud-based NoSQL database that manages your data at the blazing speed of milliseconds. In simplest term, it can be considered as a big JSON file.
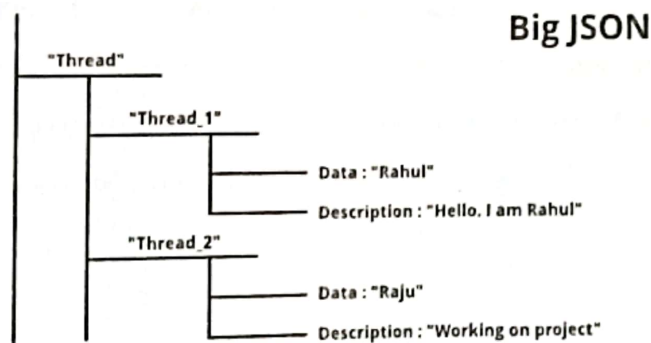

Figure 3.4: Big JSON File

Cloud Firestore: The cloud Firestore is a NoSQL document database that provides services like store, sync, and query through the application on a global scale. It stores data in the form of objects also known as Documents. It has a key-value pair and can store all kinds of data like, strings, binary data, and even JSON trees.

Figure 3.5: Cloud Firestore

Authentication: Firebase Authentication service provides easy to use UI libraries and SDKs to authenticate users to your app. It reduces the manpower and effort required to develop and maintain the user authentication service. It even handles tasks like merging accounts, which if done manually can be hectic.
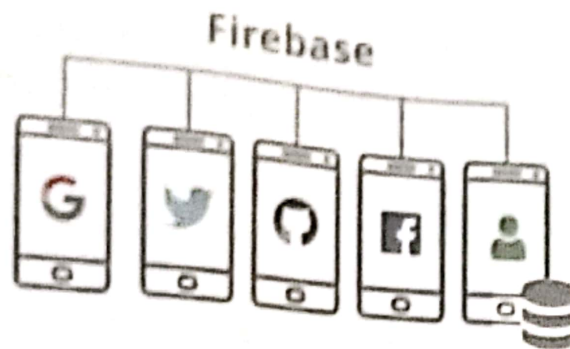
Figure 3.6: Firebase Authentication

Remote Config: The remote configuration service helps in publishing updates to the user immediately. The changes can range from changing components of the UI to changing the behavior of the applications. These are often used while publishing seasonal offers and contents to the application that has a limited life.
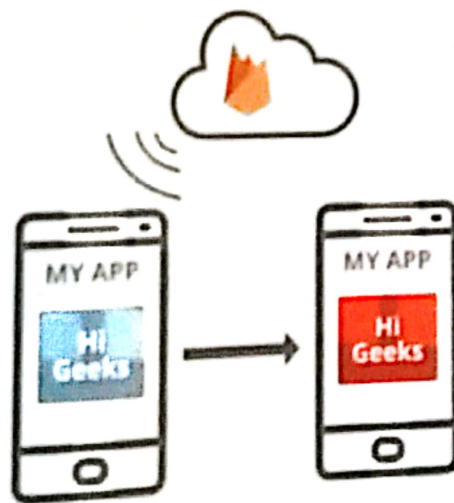

Figure 3.7: Remote Configuration

Hosting: Firebase provides hosting of applications with speed and security. It can be used to host Stati or Dynamic websites and micro services. It has the capability of hosting an application with a single command.

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Firebase Cloud Messaging(FCM): The FCM service provides a connection between the server and the application end users, which can be used to receive and send messages and notifications. These connections are reliable and battery-efficient.
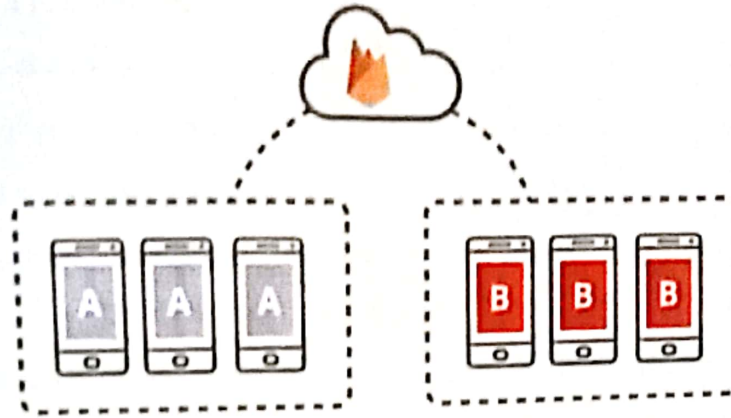

Figure 3.8: Cloud Messaging

3.2.2 MONGODB ATLAS

Database-as-a-Service (DBaaS) is a service that allows you to set up, deploy, and scale a database without worrying about on-premise physical hardware, software updates, and the details of configuring for performance. With DBaaS, a cloud provider does all that for you—and gets you up and running right away.

MongoDB Atlas is a fully-managed cloud database that handles all the complexity of deploying, managing, and healing your deployments on the cloud service provider of your choice (AWS , Azure, and GCP). MongoDB Atlas is the best way to deploy, run, and scale MongoDB in the cloud. With Atlas, you'll have a MongoDB database running with just a few clicks, and in just a few minutes. Getting Started with MongoDB Atlas To begin using MongoDB Atlas, you'll need to do the following:

Create a MongoDB Cloud account. Create a MongoDB Atlas cluster. Configure network access and create a cluster user. Connect to the cluster. MongoDB Atlas has a free tier, so you won't need any payment or credit card information.

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3.2.3 NODE.JS

Node.js is a server-side platform built on Google Chrome's JavaScript Engine (V8 Engine). Node.js was developed by Ryan Dahl in 2009 and its latest version is v0.10.36. The definition of Node.js as supplied by its official documentation is as follows

Node.js is a platform built on Chrome's JavaScript runtime for easily building fast and scalable network applications. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

Node.js is an open source, cross-platform runtime environment for developing server-side and networking applications. Node.js applications are written in JavaScript, and can be run within the Node.js runtime on OS X, Microsoft Windows, and Linux.

Node.js also provides a rich library of various JavaScript modules which simplifies the development of web applications using Node.js to a great extent.

Node.js = Runtime Environment + JavaScript Library

Features of Node.js :

Following are some of the important features that make Node.js the first choice of software architects.

Asynchronous and Event Driven All APIs of Node.js library are asynchronous, that is, non-blocking. It essentially means a Node.js based server never waits for an API to return data. The server moves to the next API after calling it and a notification mechanism of Events of Node.js helps the server to get a response from the previous API call.

Very Fast Being built on Google Chrome's V8 JavaScript Engine, Node.js library is very fast in code execution.

Single Threaded but Highly Scalable Node.js uses a single threaded model with event looping. Event mechanism helps the server to respond in a non-blocking way and makes the server highly scalable as opposed to traditional servers which create

limited threads to handle requests. Node.js uses a single threaded program and the same program can provide service to a much larger number of requests than traditional servers like Apache HTTP Server.

No Buffering Node.js applications never buffer any data. These applications simply output the data in chunks.
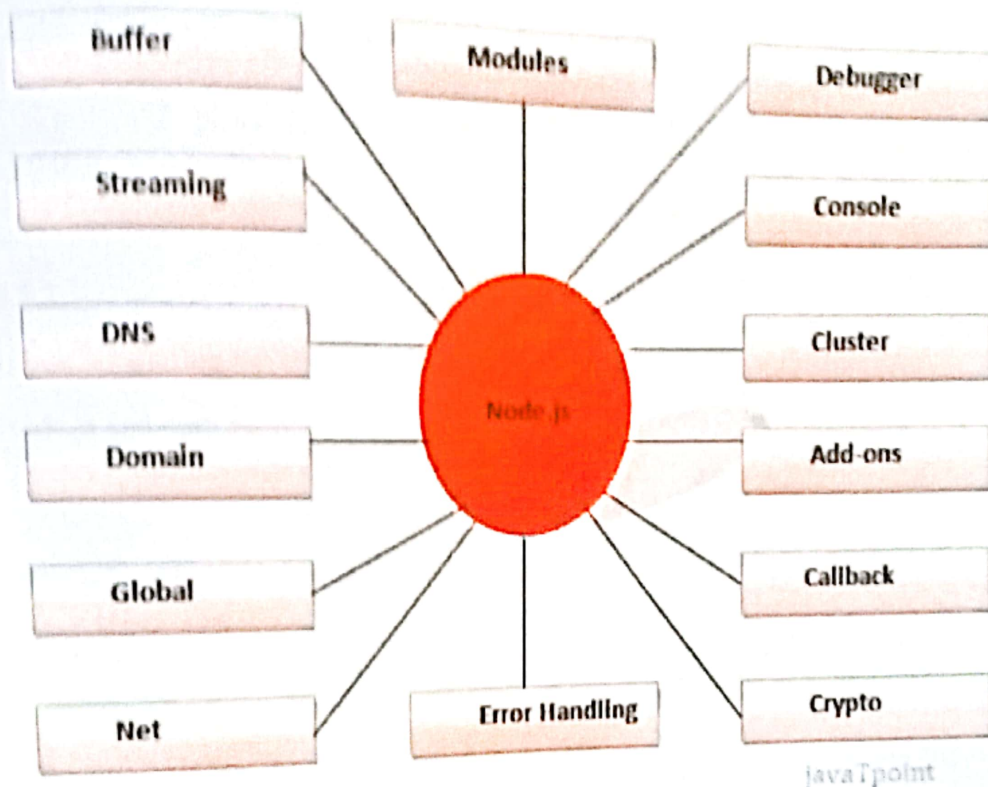

Figure 3.9: important parts of Node.js

3.2.4 EXPRESS.JS

Express is the most popular Node.js framework because it requires minimum setup to start an application or an API and is fast, and unopinionated at the same time. In other words, it does not enforces its own philosophy that a application or API should be built in a specific way, unlike Rails and Django. Its flexibility can be calculated by the number of npm modules available which makes it pluggable at the same time. If you have basic knowledge of HTML, CSS, and JavaScript and how Node.js works in

general, in no time you will be able to get started with Express.

Express was developed by TJ Holowaychuk and is now maintained by Node.js foundation and open source developers. To get started with the development using Express, you need to have Node.js and npm installed. You can install Node.js on your local machine and along with it comes the command line utility npm that will help us to install plugins or as called dependencies later on in our project.

To check if everything is installed correctly, please open your terminal and type:

node –version

v5.0.0

npm –version

3.5.2

If you are getting the version number instead of an error that means you have installed Node.js and npm successfully.

Chapter 4

USECASE DIAGRAM

Diagram Flow: A use case diagram is a Data flow Diagram (DFD) at 0 levels that describes the highest level view of the diagram, with the whole system represented as one process. The Use Case diagram is useful for showing system boundaries. The system scope is defined by what is represented within the single process and what is represented as external agent. External agents that supply or retrieve data from the system scope. The data flow come from the event table;they are triggered and response for all of the event. The context diagram provides a good overview of the scope of the system,showing the system the as "Context".
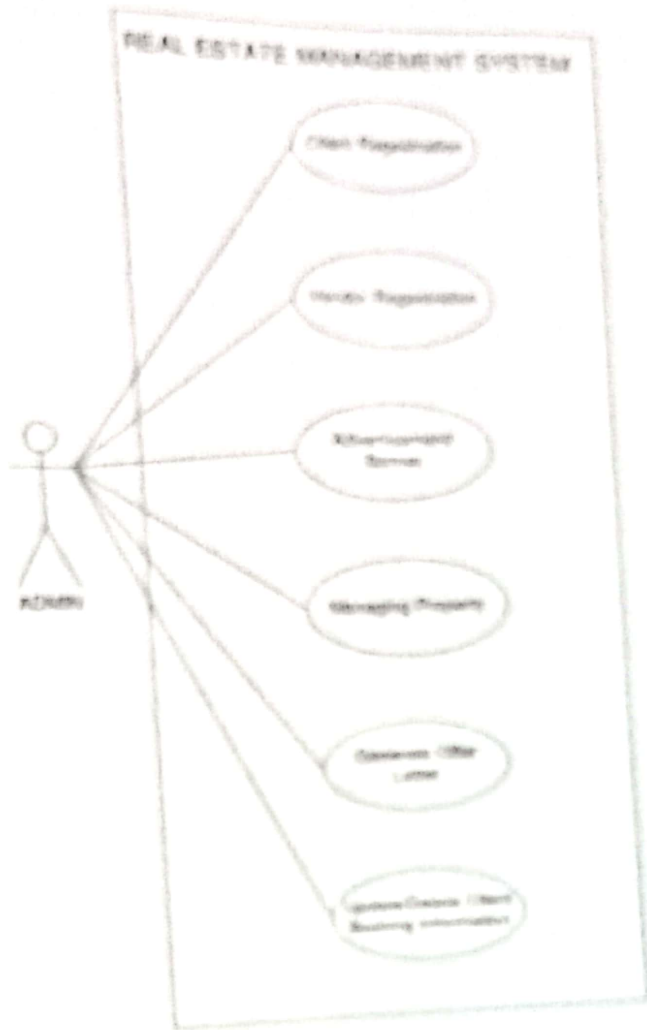
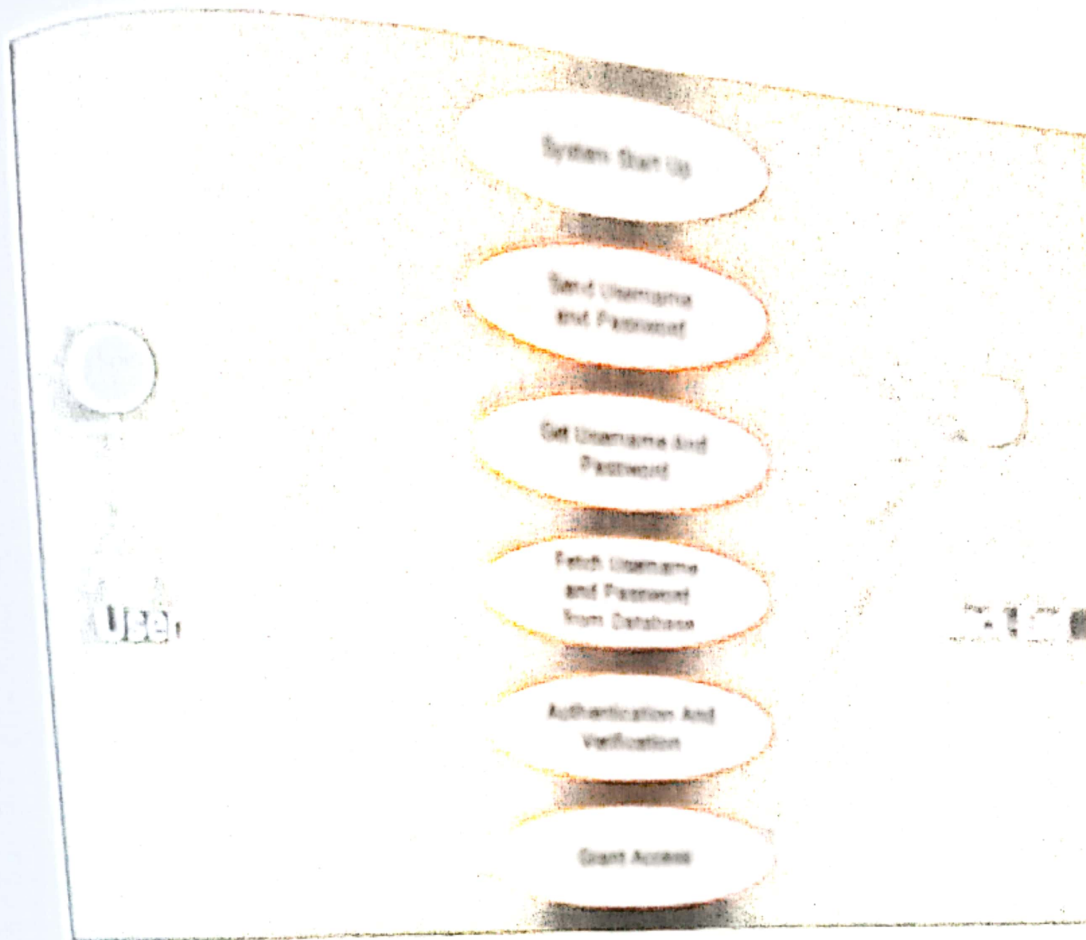Figure 4.1 Usecase Diagram

4.1 Authentication Authority

Figure 4.2: Authentication Authority

use case diagram for Authentication module. The authentication module will be responsible for authentication and validating user with their username and password. Back-end will be hosted with server and will be responsible to access different types of http requests. Authentication module will be one part of complete back-end. It will receive username and password entered by user, query the database engine to fetch similar records from database engine and compare them. After verification authentication module will be able to grant access to user for other back-end services.

4.2 Usecase Diagram (Web Portal Module)

Use case diagram for Web portal module. With the help of this portal user will be able to see information regarding different users. This portal will send http requests to back-end and on receiving result, this portal will be able to display that result in proper format.
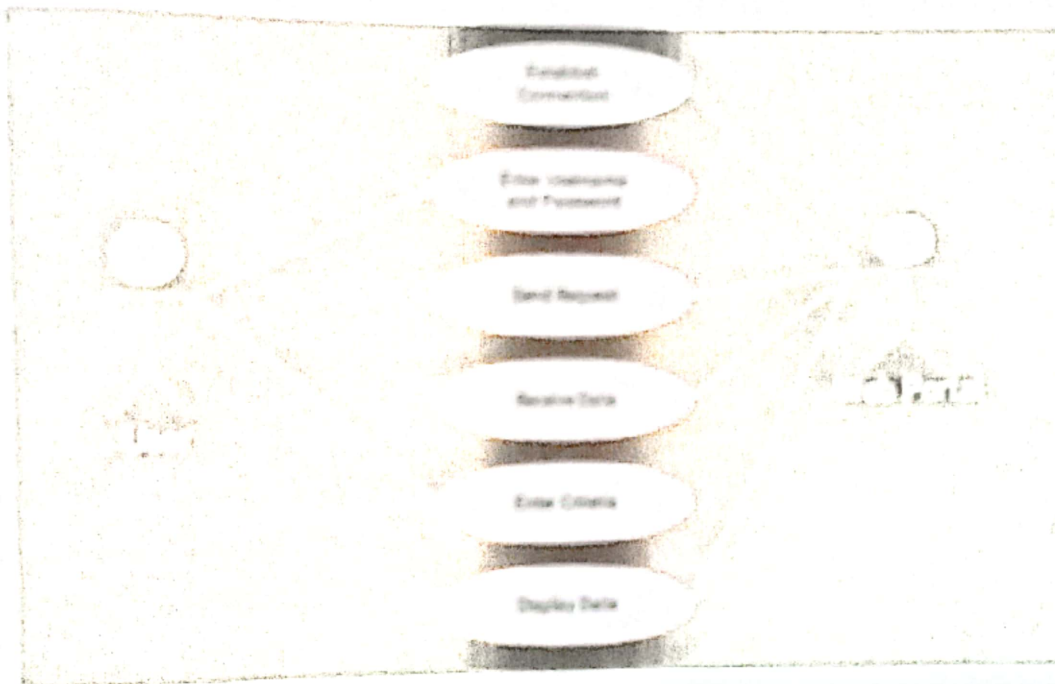

Figure 4.3: Web App Module

use case diagram for Web portal module. With the help of this portal user will be able to see information regarding different users. This portal will send http requests to back-end and on receiving result, this portal will be able to display that result in proper format.

Chapter 5

Practical Implementation of HTML and CSS

HTML was used to manually manipulate web pages using tags such as <b> or <i> to force text to be either bold or italic respectively. In addition to these basic tags, there were many other tags to manipulate font, text size, layout, and so on. However, there were significant drawbacks to this method. By manually coding a line of text to be a certain font or size, if a change was needed for the page, every single spot that referenced that font had to be manually changed. Aside from the tedious nature of this task, there was also significant risk of affecting the code for the entire page as a simple font change could accidentally erase important code and cause massive site outages and financial impacts. Thus, CSS was born.

CSS is short for Cascading Style Sheets, and on the simplest level, they are a config file that holds all the parameters for a single page or an entire website. While it may be tempting to think that CSS replaced HTML, this is untrue as CSS has merely enhanced HTML and allowed developers greater control of web page layout without having to touch the actual HTML code, thus minimizing risk.

Figure 5.1: Web App Module
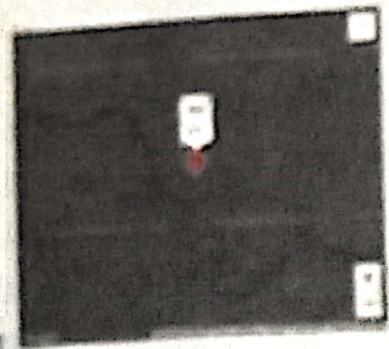
Figure 3.3: Web App Module

Figure 3.4: Web App Module

Chapter 6

FUTURE SCOPE

The real estate industry is experiencing rapid changes due to new technology and an influx of capital. This capital increase should serve as a signal that the real estate industry is preparing to undergo rapid changes with the creation of new digital resources. Most notably, investors should be prepared for the ways online property listing platforms, smartphone apps, virtual reality, and blockchain technology will impact all aspects of real estate transactions.

Investors will soon begin to see more competition among property listing websites, all aimed at enabling aspiring or existing property owners to buy and sell with ease. While platforms like Zillow and Trulia have dominated the market for several years, similar platforms will continue to be released.

The popularity of online listing platforms means buyers and renters will have strong ideas of what they are looking for when searching for properties. Investors hoping to stay ahead of the curve will need to adapt to buyers (and sellers) who can access hundreds of property listings at the touch of a button. One way to stand out is by joining the smart home trend and adding appliances and other features that are compatible with new apps. These features are appealing to the tech-savvy demographic because of their increased security and energy efficiency.

The development of real estate smartphone apps will also continue to change all aspects of the real estate transaction process. For example, existing apps like Docusign

and Desktop already allow real estate professionals to sign and send contracts and other documents on their phones. Other apps such as Buildium and RentTrack allow tenants to pay rent or communicate with landlords through an online portal. These apps are expected to grow in popularity as investors search for ways to automate deal acquisitions, property management, and communications.

By 2040, real estate market will grow to Rs. 65,000 crore (US$ 9.30 billion) from Rs. 12,000 crore (US$ 1.72 billion) in 2019. Real estate sector in India is expected to reach US$ 1 trillion in market size by 2030, up from US$ 200 billion in 2021 and contribute 13% to the country's GDP by 2025. Retail, hospitality, and commercial real estate are also growing significantly, providing the much-needed infrastructure for India's growing needs.

India's real estate sector saw over 1,700 acres of land deals in the top 7 cities in 1 year. Foreign investments in the commercial real estate sector were at US$ 10.3 billion from 2017-21. As of February 2022, Developers expect demand for office spaces in SEZs to shoot up after the replacement of the existing SEZs act.

As per ICRA estimates, Indian firms are expected to raise >Rs. 3.5 trillion (US$ 48 billion) through infrastructure and real estate investment trusts in 2022, as compared with raised funds worth US$ 29 billion to date.

The office market in the top eight cities recorded transactions of 22.2 msf from July 2020 to December 2020, whereas new completions were recorded at 17.2 msf in the same period. In terms of share of sectoral occupiers, Information Technology (IT/ITeS) sector dominated with a 41% share in the second half of 2020, followed by BSFI and Manufacturing sectors with 16% each, while Other Services and Co-working sectors recorded 17% and 10%, respectively.

Chapter 7

CONCLUSION AND DISCUSSION

7.1 Self Analysis of Project Viabilities

Definitely, it's cheaper to use online Mobile shopping for both personal and business use because most of it is usually free.

7.2 Problem Encountered and Possible Solutions

Hardware Limitations:

The only limitation posed extending the disk space is exhausted. And it can be solved by extending the disk space.

Internet speed:

Internet connection speed should be minimum 128 kbps.

Tools:

Visual Studio Code

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7.3 Summary of Project work

In whole procedure to prepare project, we first gather the requirement of the project and decide the time schedule. After planning we design the documentation of project. After the design we generate the code of system. In design the code we do the error estimation and effort estimation. If error is occur then solve it. Finally when code is designed then test the project and decide the cost of project.

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