

PROFESSIONAL TRAINING REPORT

at

**Sathyabama Institute of Science and Technology (Deemed
to be University)**

Submitted in partial fulfillment of the requirements for the award of
Bachelor of Engineering Degree in Information technology and Engineering

By

**PREETHI. S
REG. NO. 39120084**



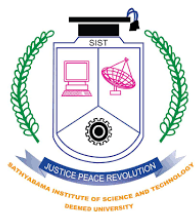
**DEPARTMENT OF INFORMATION TECHNOLOGY AND
ENGINEERING**

SCHOOL OF COMPUTING

**SATHYABAMA INSTITUTE OF SCIENCE AND
TECHNOLOGY**

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SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE
UNIVERSITY)

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DEPARTMENT OF INFORMATION TECHNOLOGY AND
ENGINEERING

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **PREETHI. S(Reg. No: 39120084)** who carried out the project entitled “**covid19Tracker using Angular**” under my supervision from June 2021 to November 2021.

Internal Guide

Dr. Jabez, M. E., ph. D.,

Head of the Department

Submitted for Viva voce Examination held on _____

InternalExaminer

ExternalExaminer

DECLARATION

I, **PREETHI. S** hereby declare that the project report entitled **covid19Tracker using Angular** done by me under the guidance of Dr. Jabez, M. E., ph. D., is submitted in partial fulfillment of the requirements for the award of Bachelor of Engineering Degree in Information Technology and Engineering.

DATE:

PLACE:

SIGNATURE OF THE CANDIDATE

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to **Board of Management** of **SATHYABAMA** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

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TRAINING CERTIFICATE



ABSTRACT

Chat refers to the process of communicating, interacting and/or exchanging messages over the Internet. It involves two or more individuals that communicate through a chat-enabled service or software. Chat may be delivered through text, audio or video communication via the Internet.

A chat application has basic two components, viz server and client. A server is a computer program or a device that provides functionality for other programs or devices. Clients who want to chat with each other connect to the server.

The chat application we are going to make will be more like a chat room, rather than a peer to peer chat. So this means that multiple users can connect to the chat server and send their messages. Every message is broadcasted to every connected chat user.

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LIST OF ABBREVIATIONS

Mongodb	-	Mongo database
App	-	Application
Chars	-	Characters
No's	-	Numbers
Acc	-	According
JS	-	Java Script
Const	-	constant

INTRODUCTION

With the rapid development of mobile phones, mobile devices have become one of the integral part of daily activities. In recent years, chat applications have evolved and made a major change in social media because of their distinctive features that attract audiences[1]. It provides real-time messaging and offers different services including, exchange text messages, images, files and etc. Moreover, it supports cross platforms such as Android and iOS. There are currently hundred millions of users smartphone are using chat applications on monthly basis[2]. There are two types of architecture in those applications, client-server and peer-to-peer networks. In a peer-to-peer network, there is no central server and each user has his/her own data storage. On the contrary, there are dedicated servers and clients in a client-server network and the data is stored on a central server[3]. Security and privacy in chat applications have a paramount importance but few people take it seriously. In a test done by the Electronic Frontier Foundation, most of the popular messaging applications failed to meet most security standards. These applications might be using the conversations as an information for certain purposes. Moreover, reading the private conversations is certainly unacceptable in terms of privacy. Most applications only used Transport Layer Security (TLS) for securing channel, the service provider has full access to every message exchanged through their [1:00 am, 18/04/2022] Amma☐♀❤. infrastructure [4]. Therefore, these messages can be accessed by attackers. Therefore to maintain protection and privacy, messages should be encrypted from sender to receiver and no one can read messages even the service provider, in addition to protecting the local storage of the device [5]. In this paper, we focus on security, privacy and speed by proposing end-to-end security which ensures only sender and receiver can read messages without a third party. As well as storage protection and fast transfer of messages between the parties. The main contributions of this paper are the following: 1- Propose client-server mobile chat application which supports the status of the communicating parties whether online or offline. 2- Provide a friendship request service. 3. Secure key exchange, then calculate the session key. 4. Secure exchange of end-to-end message 5. Analysis and test the proposed chat..

DESCRIPTION:

A chat application makes it easy to communicate with people anywhere in the world by sending and receiving messages in real time. With a chat app, users are able to receive the same engaging and lively interactions through custom messaging features, just as they would in person. This also keeps users conversing on your platform instead of looking elsewhere for a messaging solution. Whether it's a private chat, group chat, or large scale chat, adding personalized chat features to your app can help ensure that your users have a memorable experience.

In this guide, we'll explore:

How custom in-app chat features enable user engagement

The long-term factors to consider when building a chat application

How engaging messaging apps lead to an improved user experience

By the end of this guide, you'll understand the benefits of implementing personalized, real-time chat app features to increase user engagement and retention on your platform.

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scope of project: *To real time chat application to great group.*

HARDWARE REQUIREMENTS:

In hardware requirements we require all those components which will provide us the platform for the development of the project. The minimum hardware required for the development of this project is as follows_

- Ram-minimum 128MB
- Hard disk_minimum 5GB
- Processor -pentium 3
- floppy drive 1.44"inch
- CD drive.

These all are the minimum hardware requirement required for our project.we want to make our project to be used in any.type of computer therefore we have taken minimum configuration to a large extent..128MB ram is used so that we can execute our projection a least possible ram.5GB hard disk is used because project takes less space to be executed or stored.therefore minimum hard disk is used.others enhancements are according to the need.

SOFTWARE REQUIREMENTS: chat engine api ,netlify,node js,react js,css.

CHAT ENGINE API: Chat Engine is an API which makes it easy to build chat services. Building a chat from scratch takes a lot of time, code, and is expensive. It's better to use a product instead of writing it from scratch. We make it easy to build your chat idea in minutes.

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FEATURES:

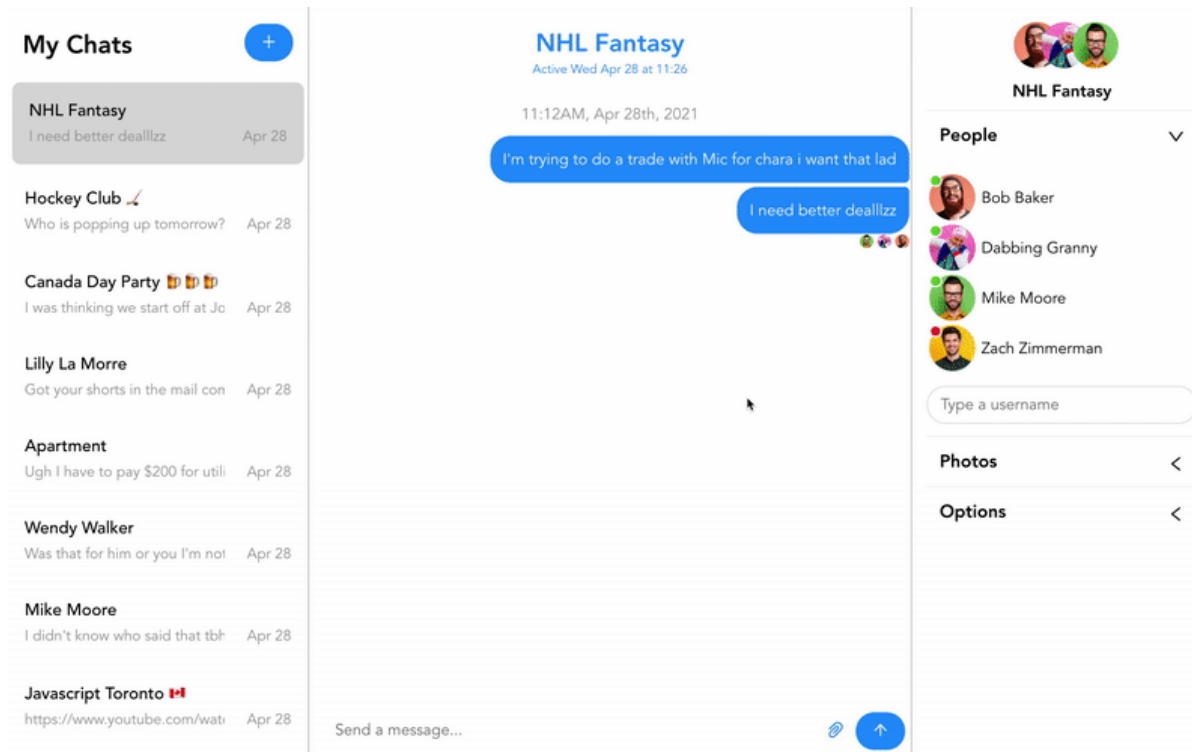
1. **Authenticate users**
2. **Subscribe (connect) to incoming chats and messages**
3. **Create chats and messages**
4. **Add and remove people from chats**
5. **Edit and delete chat and message data.**

CHAT OBJECT:

id (int) - Unique primary key to identify this chat
admin (String) - Unique username of the person who created this chat
title (String) - Optional title of this chat
created (Datetime) - Date-time of chat creation
people (Array) - Array of people added to this chat

MESSAGE OBJECT:

id (int) - Unique primary key to identify this message
sender (String) - Unique username of the person who sent this message
text (String) - Contents of the message sent
created (Datetime) - Date-time of message creation



NETLIFY:

Netlify is a web developer platform that multiplies productivity.

By unifying the elements of the modern decoupled web, from local development to advanced edge logic, Netlify enables a 10x faster path to much more performant, secure, and scalable websites and apps.

Our bet on the Jamstack is quickly coming true. The web is rapidly changing away from monolithic to decoupled apps, and web developers are storming ahead with more power than ever. Netlify is built to cater to that movement, and in just a few years we've on-boarded millions of developers and businesses, and are building and serving millions of web projects daily around the globe.

Fun fact: in the time it took you to read the above, Netlify served over 600,000 requests.

ADVANTAGES:

- Netlify Is Less Expensive, and You Get a Faster Site.
- Netlify Build Enables Developers to Build With Any Integration.
- It's Easier to Launch a Site Using Netlify.

DISADVANTAGES:

- Netlify Is Less Expensive, and You Get a Faster Site.
- Netlify Build Enables Developers to Build With Any Integration.
- It's Easier to Launch a Site Using Netlify.



netlify

node js:

- **Node.js is an open source server environment**
- **Node.js is free**
- **Node.js runs on various platforms (Windows, Linux, Unix, Mac OS X, etc.)**
- **Node.js uses JavaScript on the server.**

Here is how Node.js handles a file request:

Sends the task to the computer's file system.

Ready to handle the next request.

When the file system has opened and read the file, the server returns the content to the client.

node js requirements:

- Express 4.6.0 or higher
- Restify
- Connect
- Hapi

- Koa 2.0.0 or higher (external module loaded with the agent)
- Fastify
- Next.js 12.0.9 or higher.

node js needs:

Node.js is primarily used for non-blocking, event-driven servers, due to its single-threaded nature. It's used for traditional web sites and back-end API services, but was designed with real-time, push-based architectures in mind.

ADVANTAGES:

1. Efficient performance.
2. Easier development process.
3. Reusable code.
4. Ability to handle multiple requests.
5. Ability to scale smoothly.
6. Prompt code execution.
7. Asynchronous and event-driven.
8. Supported by leading companies.

DISADVANTAGES:

1. Reduces performance when handling Heavy Computing Tasks.
2. Node.js invites a lot of code changes due to Unstable API.
3. Node.js Asynchronous Programming Model makes it difficult to maintain code.
4. Choose Wisely – Lack of Library Support can Endanger your Code.



React js:

React (also known as React.js or ReactJS) is a free and open-source front-end JavaScript library for building user interfaces based on UI components. It is maintained by Meta (formerly Facebook) and a community of individual developers and companies. React can be used as a base in the development of single-page, mobile, or server-rendered applications with frameworks like Next.js. However, React is only concerned with state management and rendering that state to the DOM, so creating React applications usually requires the use of additional libraries for routing, as well as certain client-side functionality.

React js requirements:

- HTML + CSS. No front-end dev is a stranger to HTML and CSS. ...
- JSX. In React, you never really touch HTML proper. ...
- JavaScript Fundamentals + ES6. ...
- Git. ...
- Node + npm. ...
- Redux.

React js needs: To react, you just need basic knowledge of CSS and HTML. React can be used to create mobile applications (React Native). And React is a diehard fan of reusability, meaning extensive code reusability is supported. So at the same time, we can make IOS, Android and Web applications.

React is an excellent tool with which to create interactive applications for mobile, web, and other platforms. React's popularity and usage are increasing day by day for good reason. As a developer, coding in React makes you better at JavaScript, a language that holds nearly 90% of the web development share today.

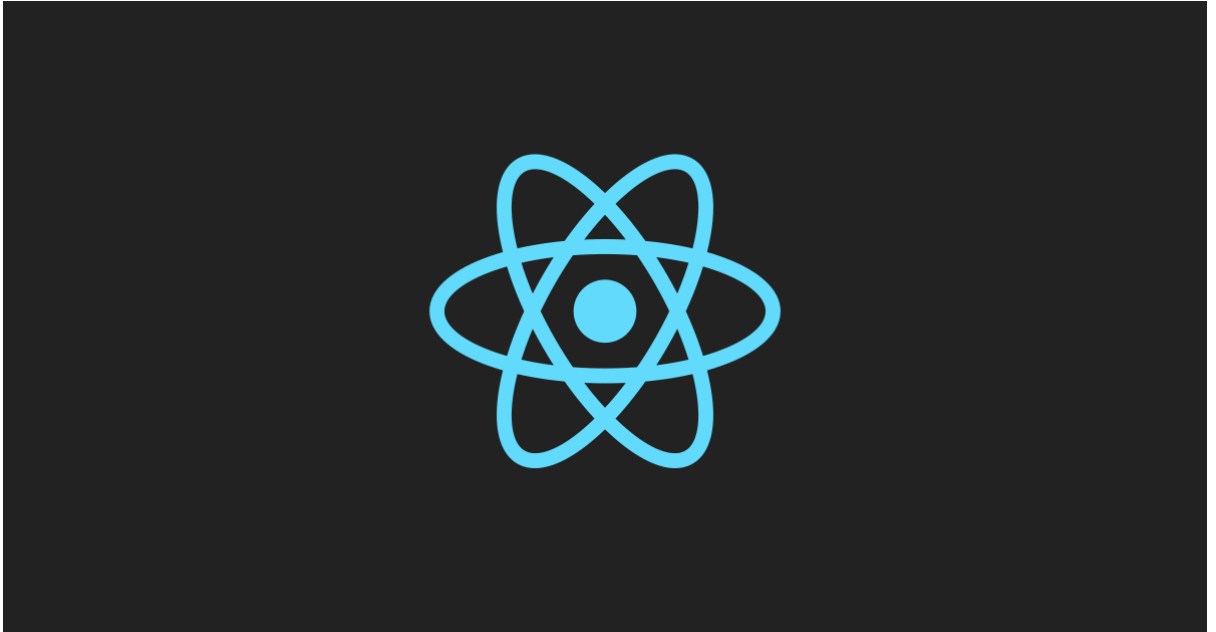
ADVANTAGES:

- Makes JavaScript coding easier.
- Extremely competent.
- Excellent cross-platform support.
- Handles dependencies.
- Template designing made easy.
- Provides amazing developer tools.
- UI focused designs.
- Easy to adopt.

DISADVANTAGES:

- The high pace of development. The high pace of development has an advantage and disadvantage both. ...

- Poor Documentation. It is another cons which are common for constantly updating technologies. ...
- View Part. ReactJS Covers only the UI Layers of the app and nothing else. ...
- JSX as a barrier.



Html:

We start our HTML with the usual DOCTYPE, html, head, and body tags. In the head tag, we add our title and link to our CSS stylesheet (style.css).

Inside the body tag, we structure our layout inside the #wrapper div. We will have three main blocks: a simple menu, our chatbox, and our message input, each with its respective div and id.

HTML



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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 and scripting languages such as JavaScript.

CSS:

Cascading Style Sheets (CSS) is a stylesheet language used to describe the presentation of a document written in HTML or XML (including XML dialects such as SVG, MathML or XHTML). CSS describes how elements should be rendered on screen, on paper, in speech, or on other media. We will now add some CSS to make our chat application look better than with the default browser styling. The code below will be added to our style.css file.

CSS



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