

## Architecture Document

# WEB BASED CHAT APPLICATION

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## Document Version Control

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## Abstract

The WEB BASED CHAT application is a chat application where user can register and chat with the already registered users, and we can search any person it works same as telegram, and we can also share the images among fellow users.

## 1. Introduction

### 1.1 Why this Architecture Document?

The purpose of this Architecture Document is to provide a high-level overview of the technological architecture we are using in this WEB BASED CHAT Application.

### 1.2 Scope

The Architecture documentation presents the structure of the system, such as the database architecture, application architecture (layers), application flow (Navigation), and technology architecture. The Architecture Document uses non-technical to mildly-technical terms which should be understandable to the administrators of the system.

### 1.3 Definitions

Term	Description
API	Application Programming Interface
CRA	Create React App
HTML	Hyper Text Markup Language
CSS	Cascading Stylesheet
JS	JavaScript
VCS	Version Control System

## 2. General Description

### 2.1 Product Perspective

The WEB BASED CHAT Application is a chat application where user can register and chat with the already registered users, and we can search any person it works same as telegram, and we can also share the images among fellow users.

### 2.2 Problem statement

To create a book meta-friends site. The friends are aggregated in one place and when user searches for a friend then the application will search for the friend and if found then return it

- To design a page where users can search for the friend
- After the search is initiated check the friend and if found display the friend on the front end

## 2.3 Proposed Solution

The solution proposed here is a web application which uses find friend and have chat within organization.

## 2.4 Further Improvements

This project can be improved by adding emoji sending options and user could do video conference or audio call.

## 2.5 Project requirements

In this project user need to register and have profile photo

## 2.6 Tools Used

In this project we are using ReactJS Library to build this application because of its ease of use and rapid development environment it provides.

- VS Code as a Code Editor
- Google Chrome as a web browser
- ReactJS to build Frontend of the application
- React-Router-DOM for client-side routing
- SCSS to handle the styling of the elements on our website
- Used firebase for backend
- Github as Version Control System

*Figure 1. Technologies Used*

## 2.7 Constraints

The WEB BASED CHAT application is a user-friendly web application which helps user to find friend and chat, share data as docs images and many other, this could also help organization to look, how their employees chat and what are the data they share with each other

## 3. Design details

### 3.1 Frontend Architecture

Frontend is the main part of our application which is primarily consumed by the clients to view the meta data of chats here we made a thoughtful choice by choosing the below technologies.

- React JS
- SCSS
- React Router DOM
- Firebase as backend

### 3.3 Source Control Architecture

Source control is the key to develop a scalable and efficient project. We choose the Github as a service because it is most popular and free solution as well.

### 3.4 Deployment Architecture

To take our application into production we need a service which is fast and reliable and has a good uptime server. We found that Netlify offers this with nice user interface so we went with this option.



## 4. Conclusion

The WEB BASED CHAT Application will help organization to make their employee chat among each other without leaking of any crucial info