IJNRD.ORG

ISSN : 2456-4184

INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD) | IJNRD.ORG

An International Open Access, Peer-reviewed, Refereed Journal

One Stop Link
All your links, in one place

[1]Rahul Choudhary, [2]Rahul Patel, [3]Prof. Lovenish Sharma
[1]Student, [2]Student, [3]Professor
[1]School of Engineering, Ajeenkya DY Patil University, Pune, Maharashtra, India
[2]School of Engineering, Ajeenkya DY Patil University, Pune, Maharashtra, India
[3]School of Engineering, Ajeenkya DY Patil University, Pune, Maharashtra, India

Abstract : One Stop Link is a contemporary web app constructed utilizing the MERN technology stack, which includes MongoDB, Express, React, and Node.js. that provides users with a centralized platform to consolidate multiple links and web pages into a single profile link. The application is designed to solve the problem of sharing multiple links on social media platforms, which can be cumbersome and overwhelming for users. With One Stop Link, users can create a personalized web page that contains links to their various social media profiles, blogs, websites, and other online content. This research paper presents an in-depth analysis of the One Stop Link project, covering its various features, architecture, and functionality. The paper also provides insights into the methodology and tools used in the development of the project. In addition, the paper explores the various benefits of using One Stop Link, including improved user experience, increased online visibility, and enhanced social media presence. The research paper also discusses the limitations and future scope of the One Stop Link project, highlighting areas for further development and improvement. Overall, this research paper provides a comprehensive overview of the One Stop Link project and its potential to revolutionize the way users share and manage their online content.

IndexTerms - **Online presence management, Landing page, Social media hub, MERN stack, MongoDB, Express, ReactJS, Node.js.**

I.INTRODUCTION

As the world advances towards digitalization, the internet has emerged as a vital component of our daily lives. With the advent of social media, individuals are progressively utilizing numerous platforms to exhibit their creativity, thoughts, and character. However, managing and sharing multiple links on various social media platforms can be cumbersome and confusing for users. To address this issue, we have developed a web application called "One Stop Link" using the MERN stack technology[5]. One Stop Link is a simple and user-friendly platform that allows users to share multiple links from different websites or social media platforms using a single link.

Users can customize their page with a profile picture, a background image, and a description. One Stop Link aims to simplify the sharing of links and provide a more organized and professional way of showcasing online presence.

With the proliferation of social media platforms, it has become increasingly challenging for individuals and businesses to manage their online presence effectively. One Stop Link addresses this challenge by providing a simple and efficient solution for consolidating multiple links into a single location.

This paper aims to delve into the creation of One Stop Link, including the utilized technologies, app features, advantages and drawbacks, and potential areas for future development. The study's objective is to conduct a comprehensive evaluation of One Stop Link's effects on both individuals and enterprises. The paper will examine the technology used, its functionality, and its potential benefits to users.

II.ARCHITECTURE AND TECHNOLOGIES

One Stop Link is a web-oriented application developed utilizing the MERN technology stack, which consists of MongoDB, Express.js, React.js, and Node.js.[5]. MERN is an open-source stack that allows developers to build robust, dynamic, and scalable web applications. The choice of MERN stack was due to its popularity and flexibility in developing web applications with real-time functionalities.

2.1 Front-end Architecture

React.js, a prevalent JavaScript library employed for constructing user interfaces, was utilized to design One Stop Link's front-end. React.js provides a component-based structure that enables the creation of reusable and modular code for the application[1]. The application's user interface was designed to be intuitive, simple, and easy to navigate, making it easy for users to access and manage their links.

2.2 Back-end Architecture

The back-end of One Stop Link was established with Node.js and Express.js[2]. Node.js is a server-side runtime environment that enables developers to create high-performance and scalable applications. Express.js, a web app framework built on top of Node.js, provides a range of features for developing resilient and scalable web apps[3]..

2.3 Database Design

The database used for One Stop Link is MongoDB, a NoSQL document-oriented database. MongoDB was chosen due to its scalability and flexibility in handling large volumes of unstructured data. It also allows for easy data modeling and querying[4].

2.4 RESTful API

One Stop Link additionally leverages RESTful APIs to facilitate communication between the application's front-end and back-end[12]. RESTful APIs allow for simple and efficient communication between different components of the application, enabling the development of scalable and robust applications.
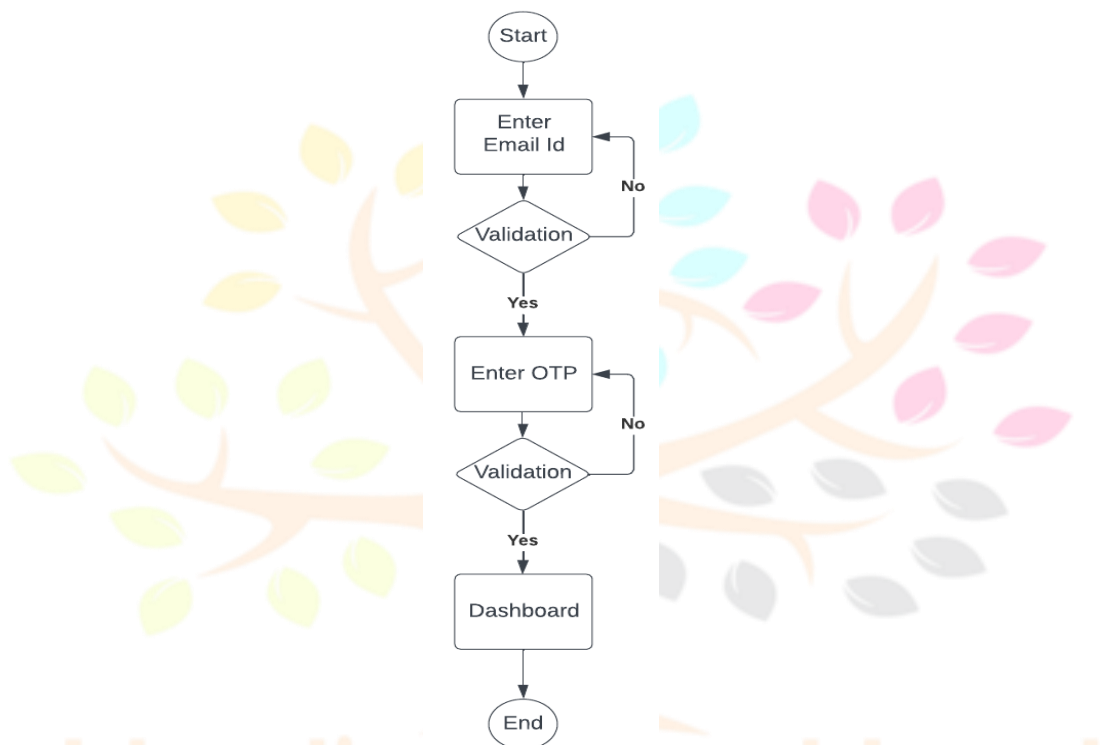
III. FLOW CHARTS
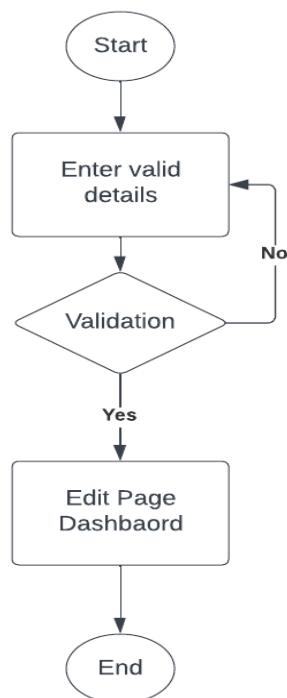

Fig -1: User Login/Signup
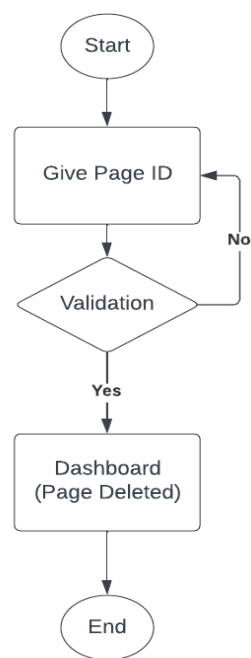
Fig -2: Page Creation

Fig -3: Page Deletion

IV.USER MANUAL

One Stop Link is a user-friendly platform that allows users to manage and promote their links from a single dashboard. Here are the steps to use One Stop Link:

Sign Up: To use One Stop Link, users need to sign up by providing their email address and otp.

Create Profile: After signing up, users can create their profile by providing their bio, profile picture, and background image. Users can also customize the layout, color scheme, and background of their profile page.

Add Links: Once the profile is created, users can add links to their dashboard. Users can add links to their website, social media pages, online store, and other online resources. Users can also categorize their links and reorder them as per their preference.

Customize Link Pages: Users can also customize their link pages by providing a title, description and background image for each link. Users can also choose the layout and color scheme for their link pages.

Share Links: After adding and customizing their links, users can share them with their audience by sharing their One Stop Link profile URL or link page URLs on their social media profiles, email signatures, or other online platforms.

V.DRAWBACKS AND LIMITATIONS

Although One Stop Link provides users with a convenient and user-friendly way to manage and promote their links, there are some drawbacks and limitations to the system:
Limited Features: One Stop Link provides users with a limited set of features compared to other similar platforms. Users may find that they need additional features that are not available on One Stop Link.
User Dependency on One Stop Link: One Stop Link creates a dependency for users on the platform, as all of their links are hosted on One Stop Link servers. If the platform experiences downtime or malfunctions, users' links will be affected.
Security Concerns: One Stop Link collects personal data from users during the sign-up process, which raises security concerns. Users' personal data may be vulnerable to hacking and data breaches if the platform's security measures are not adequate.

VI.PROPOSED ENHANCEMENTS

To address the limitations and improve the user experience of One Stop Link, here are some proposed enhancements:
Additional Features: One Stop Link can enhance the platform by providing users with additional features, such as a built-in email marketing tool, custom domain support, and integration with additional third-party platforms.
Independent Analytics: To reduce dependence on third-party integrations, One Stop Link can enhance its analytics capabilities by providing independent analytics features. This can include data visualization tools, real-time analytics, and custom reporting.
Decentralized Link Hosting: To address user dependency on the platform, One Stop Link can introduce decentralized link hosting[8]. This can involve allowing users to host their links on their own servers or using a decentralized hosting platform such as IPFS.
Improved Security: To address security concerns, One Stop Link can enhance its security measures by implementing additional encryption and authentication mechanisms, regular security audits, and vulnerability testing.
Mobile App: One Stop Link can introduce a mobile app for iOS and Android devices to improve the accessibility of the platform[7]. The app can provide users with a streamlined experience and push notifications for link performance updates.

VII.CONCLUSIONS

One Stop Link is a web-based application that offers a simple and efficient solution to the problem of managing multiple links. With the increasing number of online resources, managing and sharing links has become a challenging task. One Stop Link offers a convenient way to organize and share links in one place, thereby saving time and effort. The project has been developed using modern web development technologies such as Node.js, Express.js, React.js, and MongoDB. The use of these technologies ensures that the application is scalable, secure, and easy to maintain. The results of the project show that One Stop Link is a feasible and effective solution to link management. The application has been tested thoroughly, and feedback from users has been positive. The project has also identified potential areas of improvement, such as the addition of sub-domains and domain management features. The proposed enhancements to the system such as adding more services, implementing a recommendation engine, and improving the user interface have the potential to further enhance the user experience and increase the adoption of the system. The research has identified some gaps in the existing literature related to the implementation of such systems and has proposed future research directions to address these gaps. Overall, One Stop Link is a valuable contribution to the field of web development and provides a practical solution to a common problem. The One Stop Link project has showcased the significance of implementing contemporary technologies and methodologies in software development, and has established a robust basis for future exploration and advancement in this domain.

REFERENCES

[1] Aggarwal, Sanchit. "Modern web-development using reactjs." International Journal of Recent Research Aspects 5, no. 1 (2018): 133-137.

[2] Syed, B., 2014. Beginning Node. js. Apress.

[3] Mardan, A., 2014. Express. js Guide: The Comprehensive Book on Express. js. Azat Mardan.

[4] Chauhan, A., 2019. A review on various aspects of MongoDB databases. International Journal of Engineering Research & Technology (IJERT), 8(05), pp.90-92.

[5] Subramanian, V., 2017. Pro MERN Stack (Vol. 13). Apress.

[6] Bangare, S.L., Gupta, S., Dalal, M. and Inamdar, A., 2016. Using Node. Js to build high speed and scalable backend database server. International Journal of Research in Advent Technology, 4, p.19.

[7] Eisenman, B. (2015). Learning react native: Building native mobile apps with JavaScript. " O'Reilly Media, Inc.".

[8] Soni, R. K., Soni, N., Soni, R. K., & Soni, N. (2021). Deploy a Full Stack Spring Boot React Application in AWS and S3.Spring Boot with React and AWS: Learn to Deploy a Full Stack Spring Boot React Application to AWS, 143-200.

[9] Vipul, A. M., & Sonpatki, P. (2016). ReactJS by Example-Building Modern Web Applications with React. Packt Publishing Ltd.

[10] Hoque, S. (2020). Full-Stack React Projects: Learn MERN stack development by building modern web apps using MongoDB, Express, React, and Node. js. Packt Publishing Ltd.

[11] Tran, H. (2021). Developing a social platform based on MERN stack.

[12] Doglio, F., Doglio, & Corrigan. (2018). REST API Development with Node. js (Vol. 331). Apress.