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Web Hosting Platform for HTML Websites

Amit Gajare[1], Pankaj Thoke[2], Shaikh Farid[3], Prof. S. N. Joshi
Computer Science and Engineering, SGBAU

Abstract: ***Web hosting platforms allow users to deploy websites easily. However many beginners face difficulties while hosting their projects. This paper presents Flip-Frame, a lightweight HTML web hosting platform that allows users to upload and host static websites quickly. The system focuses on simplicity, accessibility, and fast deployment. The proposed solution reduces technical barriers and allows beginners to host projects without complex server configuration.***
Keywords: Web Hosting, HTML Hosting, Static Websites, Cloud Deployment, Developer Tools

I. INTRODUCTION

In the modern digital world, sharing and deploying web projects has become an essential part of learning and development. However, traditional web hosting platforms often require complex configuration, server management, and deployment processes that can be difficult for beginners and students. Many developers simply want a quick way to test, share, and showcase their HTML, CSS, and JavaScript projects without dealing with complicated hosting setups.

The growth of web development has increased the demand for simple hosting platforms. Many beginners struggle with server configuration and deployment tools. This paper proposes Flip-Frame, a lightweight hosting platform that simplifies the process of hosting HTML websites.

II. LITERATURE SURVEY

In today's web development environment, several platforms make it easier for developers to host and share websites online. Services like GitHub Pages allow users to publish static websites directly from their repositories, making it a popular choice for portfolios, documentation, and small projects. Similarly, platforms such as Netlify and Vercel provide fast deployment and reliable hosting with features like automated builds, version control integration, and global content delivery networks. These tools have significantly simplified the deployment process compared to traditional server-based hosting.

However, most existing solutions still require users to understand concepts like Git repositories, build tools, or deployment pipelines. For beginners, students, or developers who simply want to quickly test or share small HTML, CSS, and JavaScript projects, these processes can feel complicated. This creates the need for a simpler platform that allows users to instantly host and share their code with minimal setup. The Flip-Frame platform addresses this need by providing a straightforward environment where users can submit their code and generate a unique link to view their website immediately.

III.PROBLEM STATEMENT

In the current web development environment, hosting and sharing small web projects often requires the use of complex tools and deployment processes. Platforms such as GitHub Pages, Netlify, and Vercel provide powerful hosting solutions, but they usually require knowledge of version control systems, repository management, and build configurations. For beginners, students, or developers who simply want to quickly test or share a small HTML, CSS, and JavaScript project, these steps can be confusing and time-consuming. Because of this complexity, many users struggle to quickly publish their projects and share them with others. There is a need for a simple and user-friendly platform that allows users to instantly host and access their web projects without complicated setup r technical barriers. Flip-Frame aims to solve this problem by providing a straightforward solution where users can upload or paste their code and instantly generate a unique link to view their website online. Additionally, developers and students often need a quick way to demonstrate prototypes, assignments, or experimental web designs without spending time on server setup or deployment pipelines.

IV.SYSTEM ARCHITECTURE

The system architecture of Flip-Frame is designed to provide a simple and efficient way for users to host and access small web projects online. The platform follows a client–server architecture where the frontend interface allows users to write or paste HTML, CSS, and JavaScript code directly into the browser. The user interacts with the system through a dashboard where they can submit, view, and manage their hosted projects. Authentication and user management are handled through services such as Supabase, which provides secure login and database support.

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On the backend, the system processes the submitted code and stores it in a database along with a unique identifier for each project. When a user submits their code, the system generates a unique URL that can be accessed by anyone to view the hosted webpage. When this URL is opened, the server retrieves the stored code from the database and renders it dynamically in the browser.

The architecture also includes components such as a project storage system, user authentication module, and a rendering engine that displays the hosted webpage. This modular structure ensures that the platform remains scalable, efficient, and easy to maintain while allowing users to quickly publish and share their web projects online.

V. DATABASE DESIGN

The database design of Flip-Frame is structured to efficiently store user information and hosted web projects while maintaining fast access and easy management. The system uses a cloud database provided by Supabase to manage user authentication and project data. The database mainly contains tables for storing user details and website project information. Each user record includes basic information such as user ID, name, email, and authentication credentials, which help the system identify and manage registered users.

Another important table stores the details of the hosted web projects. This table includes fields such as project ID, user ID, HTML code, CSS code, JavaScript code, and the unique URL generated for accessing the hosted website. The user ID acts as a reference that connects each project to the user who created it. This relational structure helps maintain organized data storage and ensures that each user can easily manage their own hosted projects through the dashboard. The database design also supports operations such as creating, updating, deleting, and retrieving hosted web pages efficiently

Additionally, the database is designed to support efficient data retrieval and secure data handling. Proper relationships between tables help maintain data consistency and prevent duplication. By organizing the data in a structured way, the system can quickly fetch and display hosted websites when users access their unique links. This design improves the overall performance, scalability, and reliability of the Flip-Frame platform.

VI. METHODOLOGY

The development of Flip-Frame follows a systematic approach to design and implement a simple web hosting platform for HTML, CSS, and JavaScript projects. The process begins with requirement analysis, where the main goal is identified as providing a quick and user-friendly way for developers and students to publish their web projects online. The system is designed to minimize complex configuration and allow users to focus on creating and sharing their work easily.

In the next stage, the frontend of the platform is developed using modern web technologies such as React.js. The user interface provides a clean dashboard where users can log in, paste or write their HTML, CSS, and JavaScript code, and submit it to the platform. The interface is designed to be simple and responsive so that users can manage their projects without facing technical difficulties.

After the frontend development, the backend and database integration are implemented using services such as Supabase. The backend handles user authentication, project submission, and data storage. When a user submits their code, the system stores it in the database along with a unique identifier. This identifier is used to generate a unique URL that allows the hosted webpage to be accessed publicly.

Finally, the system includes a rendering mechanism that retrieves the stored code when the generated link is opened. The code is then displayed in the browser as a fully functional webpage. Testing is performed to ensure that the platform correctly stores, retrieves, and displays user projects while maintaining security and performance. This methodology ensures that Flip-Frame provides a smooth and efficient experience for hosting and sharing web projects.

Additionally, continuous improvements and debugging are carried out during the development process to enhance the platform's functionality and user experience. Feedback from testing helps identify possible issues related to performance, data handling, or interface usability. By refining the system through iterative testing and updates, Flip-Frame becomes more reliable and efficient for hosting and sharing small web projects.

VII. RESULT AND DISCUSSION

The implementation of Flip-Frame successfully demonstrates a simple and efficient platform for hosting and sharing small web projects. The system allows users to submit HTML, CSS, and JavaScript code and instantly generate a unique URL where the hosted webpage can be viewed. The platform provides a clean dashboard where users can manage their projects easily, making the process of publishing web pages faster and more convenient compared to traditional hosting methods.

The results show that the platform effectively handles user authentication, project storage, and webpage rendering. By using services such as Supabase for database management and authentication, the system ensures secure data storage and reliable access to hosted projects. Users can quickly test, showcase, and share their web designs without complex configuration.

The discussion highlights that Flip-Frame simplifies the web hosting process, especially for beginners, students, and developers who want to quickly demonstrate prototypes or small projects. The system reduces the need for advanced deployment knowledge while still providing the essential features required for hosting and sharing websites.

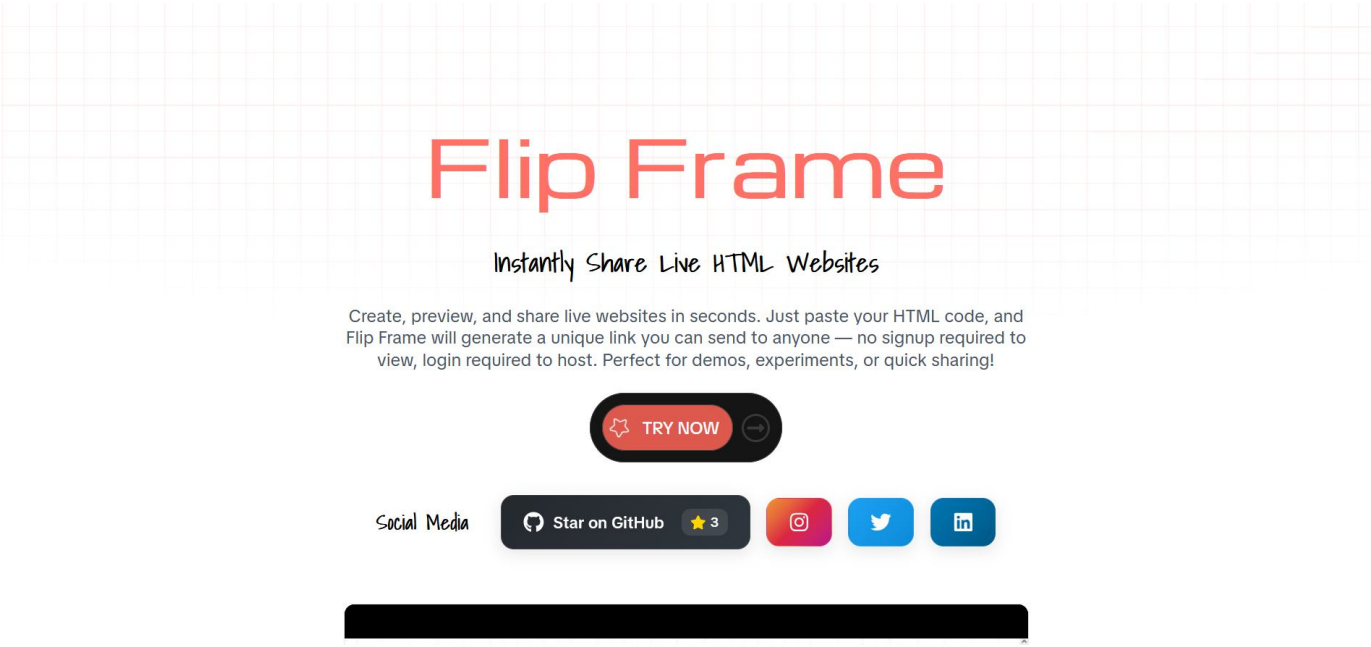


Fig. 1 Home Page of the website

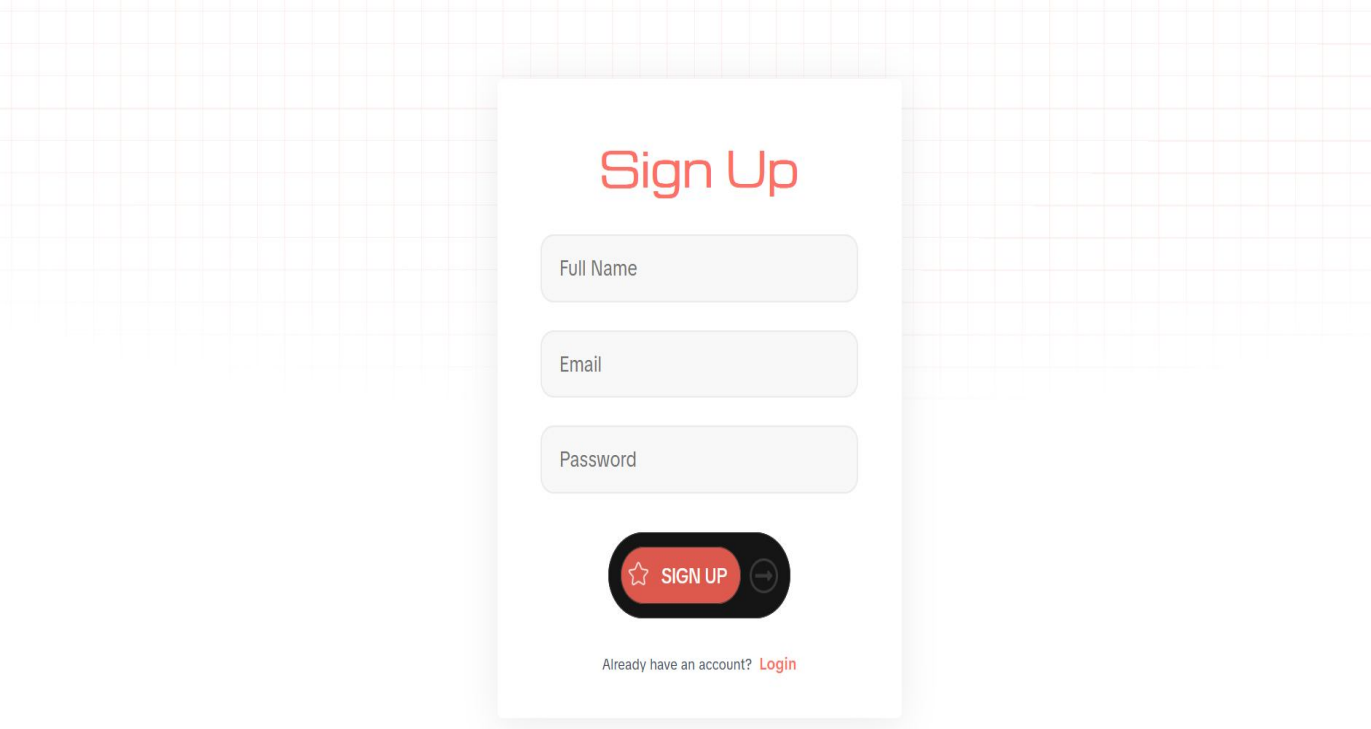


Fig. 2 New User Sign up and Login Page

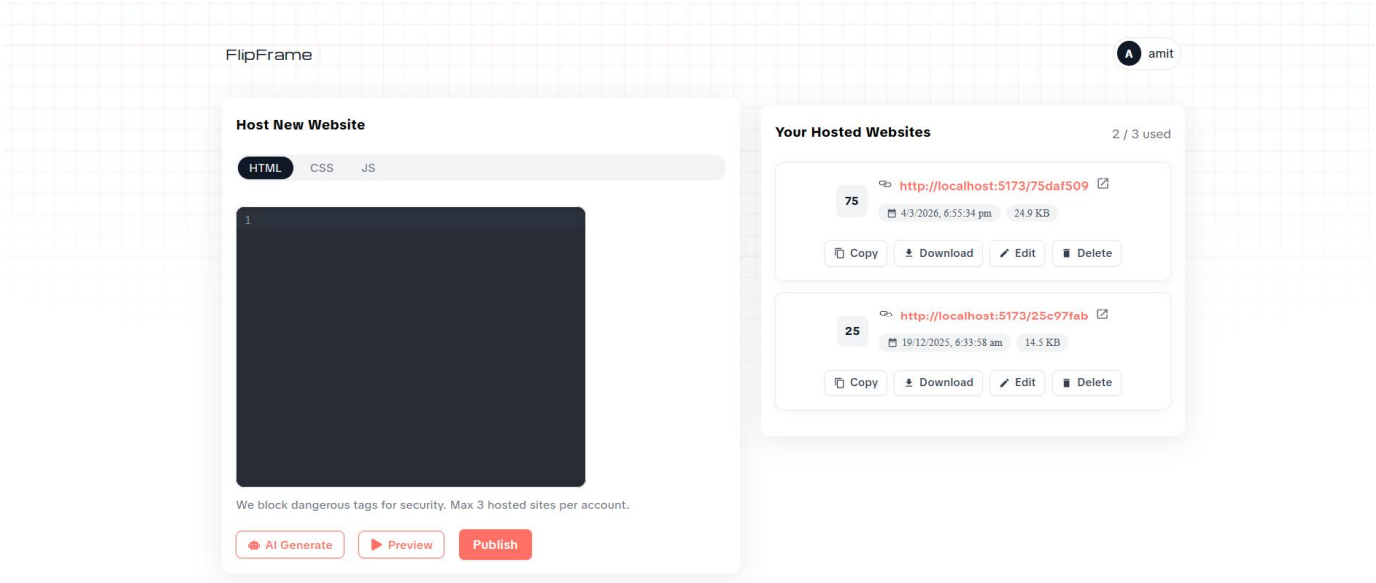


Fig. 3 Dashboard to manage hosted websites

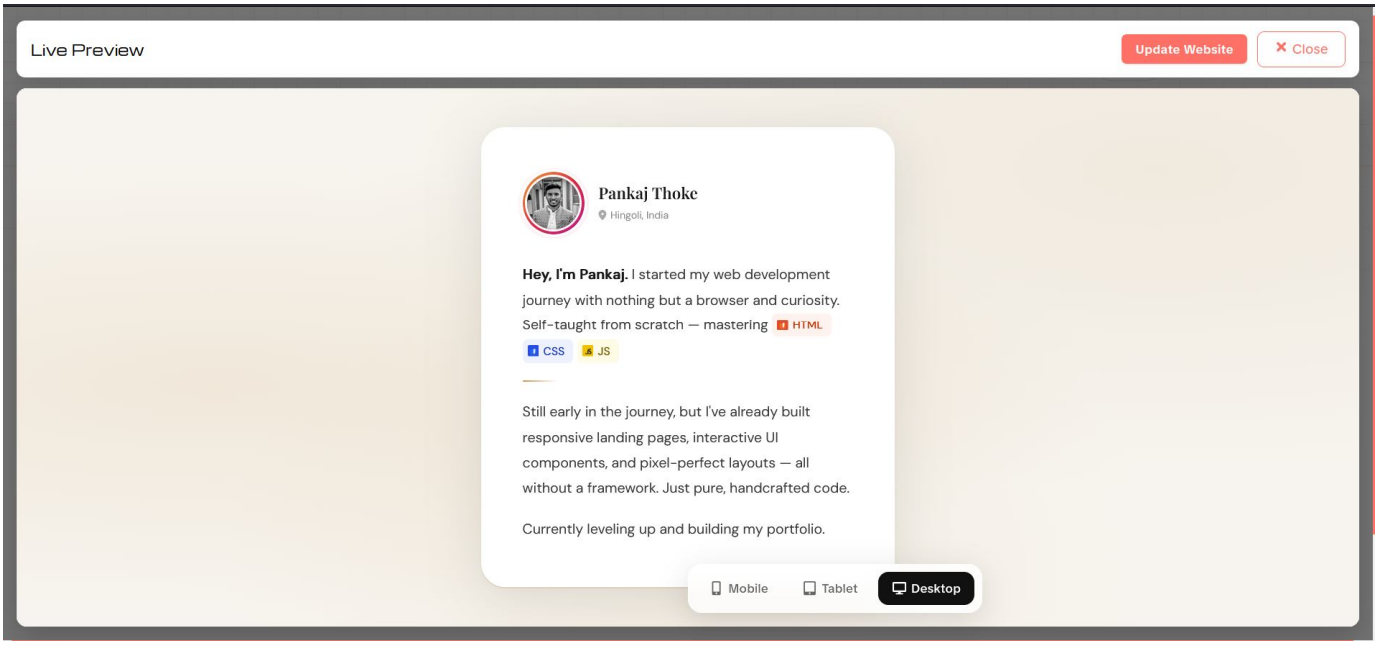


Fig. 4 Showing Hosted website Preview

VIII. CONCLUSION

Flip-Frame successfully demonstrates a simple and efficient platform for hosting and sharing small web projects online. The system allows users to easily create, preview, and publish HTML, CSS, and JavaScript websites through a clean and user-friendly interface. By generating a unique URL for each hosted project, the platform makes it possible for users to quickly share their work with others without dealing with complicated hosting processes.

The implementation of authentication, project management, and live preview features ensures that users can manage their websites effectively. The integration of services such as Supabase helps maintain secure user authentication and reliable database storage for hosted projects. These components work together to provide a smooth and responsive hosting experience.

Overall, Flip-Frame reduces the complexity of traditional web hosting and provides an accessible solution for beginners, students, and developers who want to quickly test or showcase their web projects. The platform demonstrates how modern web technologies can be combined to build a practical and lightweight hosting solution for instant web publishing.

IX. ACKNOWLEDGMENT

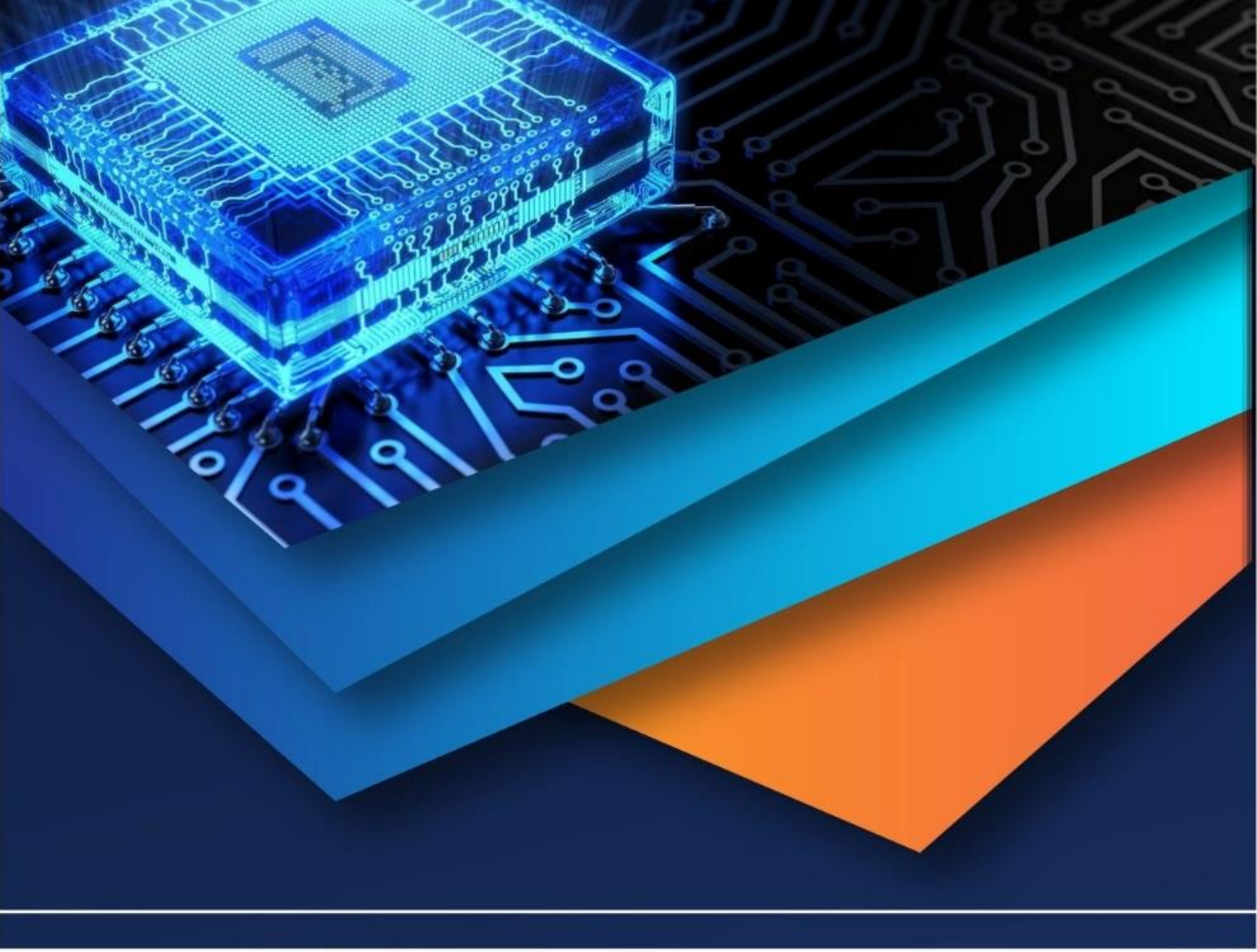
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