Bulletin Web Application

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Abstract : The design and development of a web application to improve business processes and performance in our project. The objective of this project is to create an advertising website for a company using HTML, CSS, PHP, and JavaScript. The website will be designed to showcase the company's products and services and to attract potential customers. The website will feature an intuitive and user-friendly interface, with a focus on responsive design for optimal viewing on various devices. The project will involve developing a custom content management system (CMS) that will allow the company to easily update and manage their website content. Additionally, the website will incorporate various advertising strategies such as search engine optimization (SEO) and social media integration to increase visibility and reach. Overall, this project aims to provide the company with a modern and effective advertising platform to promote their brand and increase customer engagement.

Keywords: HTML, CSS, JavaScript, jQuery, MySQL, PHP

I. INTRODUCTION

In the present-day digital age, it is essential for businesses of all kinds to have a strong online presence. A marketing website can be useful for displaying goods and services, expanding your target market, and increasing consumer loyalty. The objective of this project is to develop a web application that will help advertise our client's business on a global level. The project includes creating a responsive, user-friendly website that offers users an easy-to-use, educational experience. The combination of HTML, CSS, PHP, and JavaScript will be used in the website's construction and current design and development methods to ensure top performance and security.

The project team will employ a systematic development process to accomplish this goal, which entails analyzing the client's requirements, creating the user interface and functionality of the website, putting the code into place, and testing the website for security, usability, and functioning. To guarantee that the website fits the client's requirements and achieves their business goals, the project team will also work closely with them. By improving the client's internet visibility, luring in new clients, and boosting sales, this project has the potential to have a significant positive impact on the client's business. The project team seeks to develop a website that not only satisfies the client's needs but also distinguishes them from their rivals by utilizing the latest web technology and design ideas.

The Objective is to enhance and advertise our client's business on a global platform through design and development of a web application. The main objective of this web application is to explore the business ideas on global platform using Search Engine Optimization. To boost sales and improve awareness of this brand through a combination of graphic and textual content and contains an internal link to target ad pages using Retargeting. To improve the communication between our client and people on a global level through Chatbot using JavaScript.

II. RELATED WORK

To build this Bulletin Web Application we have studied several research paper , so Following are as describe each .This work "Spider Trap—An Innovative Approach to Analyze Activity of Internet Bots on a Website" was published in the IEEE Access journal in 2020. The authors of this work are P. Lewandowski, M. Janiszewski, and A. Felkner. The study provides a novel "spider trap" method for monitoring the behavior of internet bots on a website. They discovered that the spider trap strategy worked better

in spotting and deciphering bot activity on the website [1].This work titled "Implementation of Selenium Automation & Report Generation Using Selenium Web Driver & ATF" was presented at the 2021 International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT). The paper presents [2] the main finding that automation testing using Selenium Web Driver and ATF can significantly improve the efficiency, accuracy, and repeatability of software testing for web-based applications. This work titled "A New PHP Web Application Development Framework Based on MVC Architectural Pattern and Ajax Technology" by Stenly Ibrahim Adam and Stevani Andolo was published in IEEE in 2019.The Model-View-Controller (MVC) pattern and Ajax technology [3] are introduced as the framework's foundation, and the authors go into great length to discuss the framework's design and architecture .This work titled "The Design and Implementation of Responsive Web Page Based on HTML5 and CSS3" was presented at IEEE in 2019 by Nian Li and Bo Zhang. This work[4] gives a thorough discussion of responsive web design's significance as well as the advantages and difficulties of using HTML5 and CSS3 in this context. The authors provide a hands-on tutorial for creating responsive web pages with HTML5 and CSS3, outlining how to utilize media queries and adaptable grid systems to develop a layout that responds to various screen sizes. They also go over how to use HTML5 and CSS3 capabilities to boost performance and improve user experience .This work title "PHP Framework for Web Application Development", was presented at IASJSET in 2022. The authors of this work is Sangay Tenzin, [5] framework's design and architecture, in addition to its various components and how they interact to provide a modular and extensible approach to web application development, are thoroughly described in this work [5].This work titled ""Modern JavaScript frameworks: A Survey Study" by Rahman and Mustafa Mesut Koc presented in IEEE 2018 .The survey study[6] carried out by the authors offers an in-depth overview of the elements, such as usability, performance, and community support, that affect the choice of a specific JavaScript framework. This work Titled "A Model for Choosing Hosting for a Company's Website" is Published in IEEE in 2020 by Nataliya Fil , Leonid Nefedov and Angela Binkovskaya. How to create online apps using jQuery, JSON, and MySQL is explained in the study paper in simple and comprehensive detail[7]. The authors give a real-world example of a web application they created utilizing these tools, which serves to show the benefits of doing so while building websites . The research paper titled "Hybrid Database System of MySQL and MongoDB in Web Application Development" by Ongo and Kusuma explores the use of both MySQL and MongoDB databases in web application development. [8] In order to boost performance and scalability, this work addresses the drawbacks of utilizing just one database system, such as MySQL or MongoDB, in web applications. It then suggests a hybrid method that integrates both database systems. The suggested hybrid database system's design is also covered in this work; it includes a MySQL database for structured data and a MongoDB database for unstructured data. The article titled "A Literature Review on Agile Software Development" by A. Kaushik, published in the International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE) in September 2016. This paper [9] provide a comprehensive overview of agile software development, including its principles, history, different frameworks, tools, and techniques used in agile methodologies. The article also discusses the advantages and disadvantages of agile software development and presents case studies and success stories of companies that have implemented agile methodologies. paper "The Software Challenges of Building Smart Chatbots" by Daniel and Cabot, presented at the 2021 IEEE/ACM International Conference on Software Engineering. [10] The requirement for integrating natural language processing (NLP) and machine learning (ML) techniques, handling ambiguity and uncertainty in user input, as well as making sure the chatbot can handle a variety of user requests are just a few of the software challenges addressed in this paper .
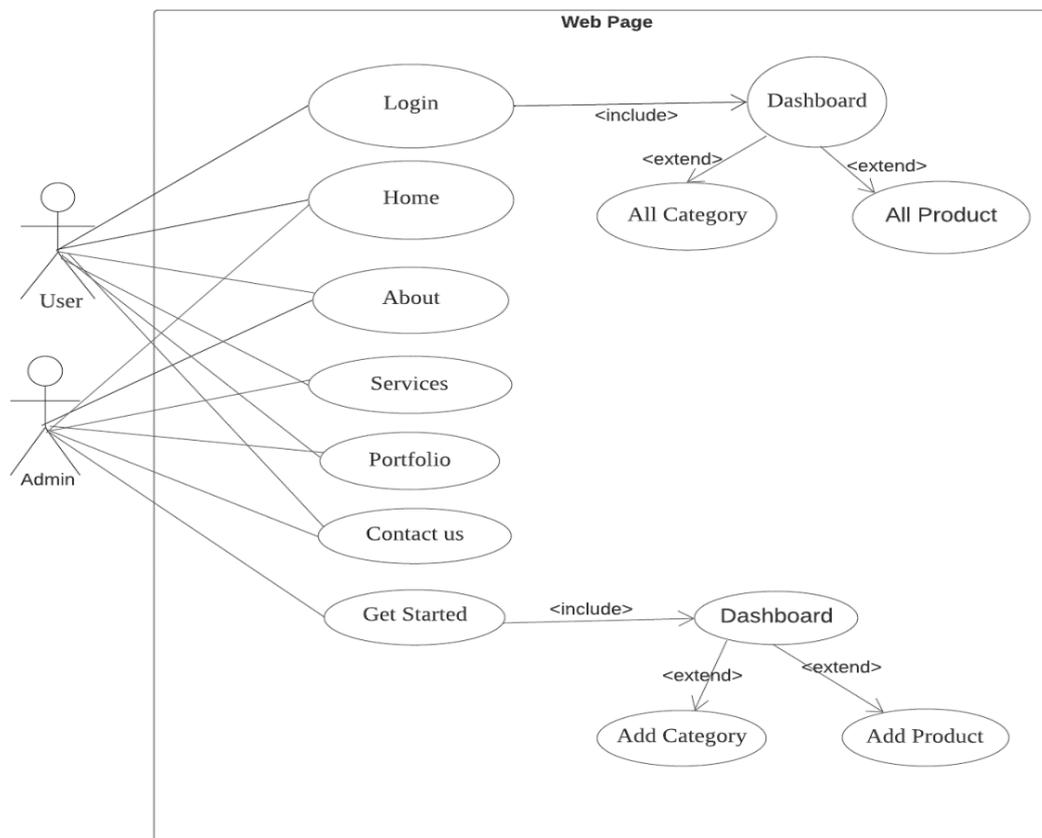
III. METHODOLOGY

1. Use case diagram.

Fig 1. Use Case Diagram of Bulletin Web Application

A use case diagram is a visual representation of how users or other systems interact with a system. It demonstrates how users or outside systems work together with a system to accomplish a certain job or objective.

Figure 1 shows use case diagram of Bulletin Web Application. In figure an Actors are user and Admin that are interacting with the system. The use cases are login, home, about, services, portfolio, contact us, get started, dashboard, add category, add product, all category, all product are representing a specific functionality that the system can perform. Association represents an interaction between an actor and a use cases. An extends are representing an optional behavior and includes are representing a mandatory behavior.

2. Activity diagram.
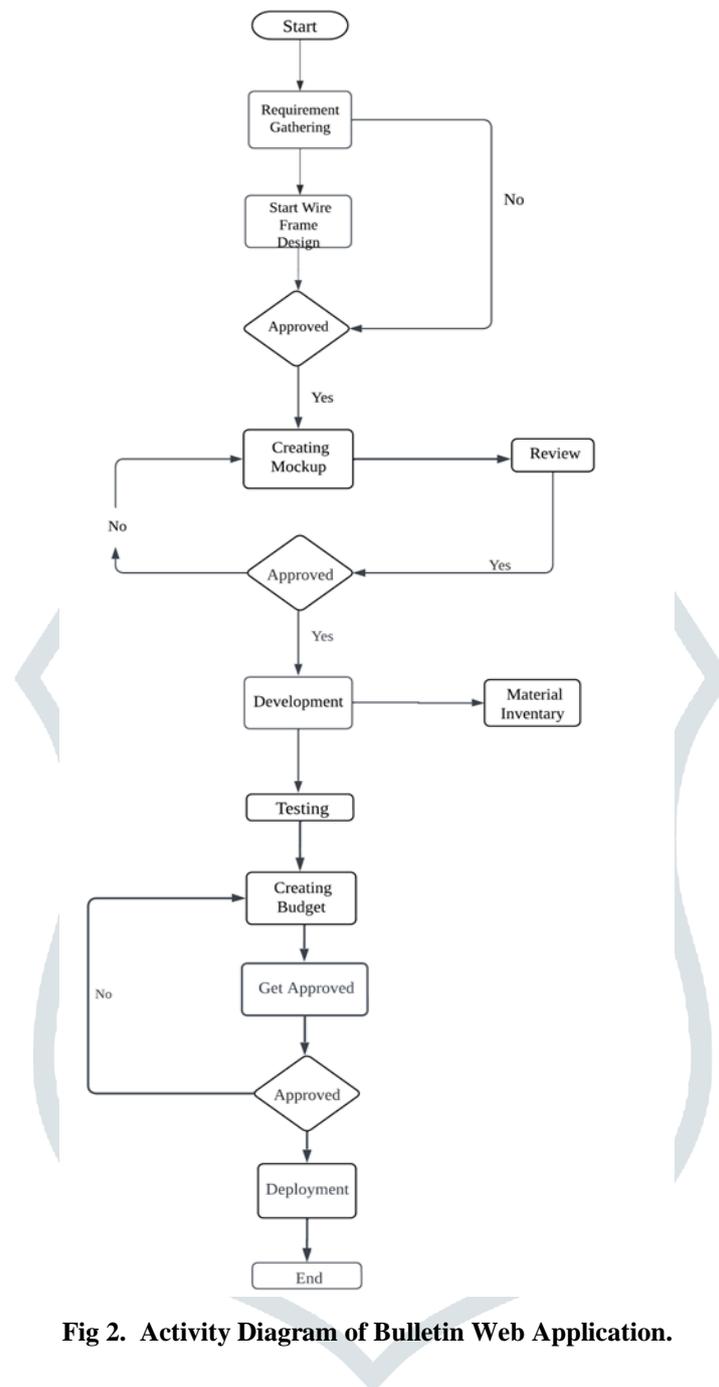
Fig 2. Activity Diagram of Bulletin Web Application.

Figure 2 shows the general workflow of the system as shown graphically in the activity diagram. Begin with gathering requirements, then construct a wireframe that is reviewed by clients. If the wireframe is approved, create a mockup; otherwise, return to the requirement for the collection. After generating the mockup, acquire the client's approval before moving on to the development phase; otherwise, create another one. Code writing and project design are included in the development phase. This phase of testing will be followed by testing. Create a project budget and gain client approval; if they do, move forward; if not, return to the previous phase, which is budget creation. Deployment is the next and last phase. The launch of the website represents the completion of the project.

3. Flow of the website

Customers can access company services through an intuitive interface provided by our Bulletin Web Application. Company services are briefly described on the home page, and comprehensive information about our business and customers is provided in the about us section as you can see below flow. The company's services are displayed in the services section, and the previous work of the clients' is displayed in the portfolio section. Customers can get in touch with the company by using the chatbot or the contact us

page. Users can create an account to access their dashboard, where they can see company services and place orders along with it, it has admins' dashboard where admin can add/edit the categories, products and orders.
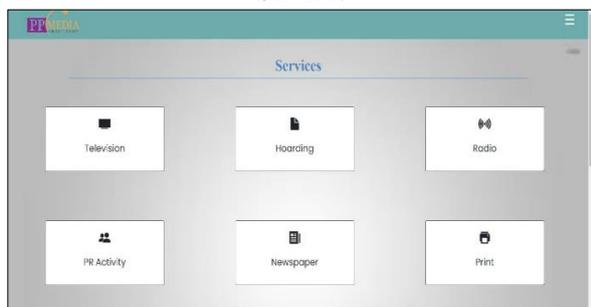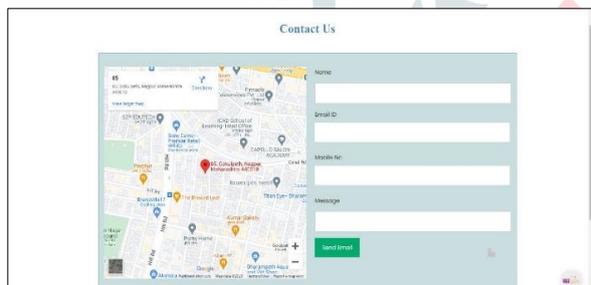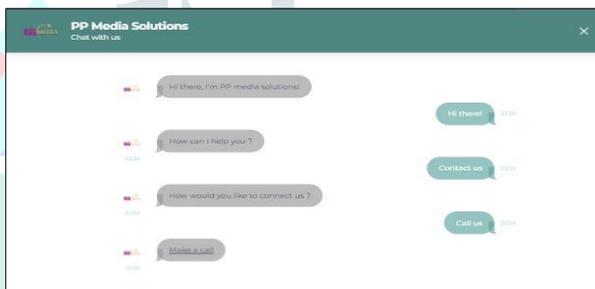
Home page

About us

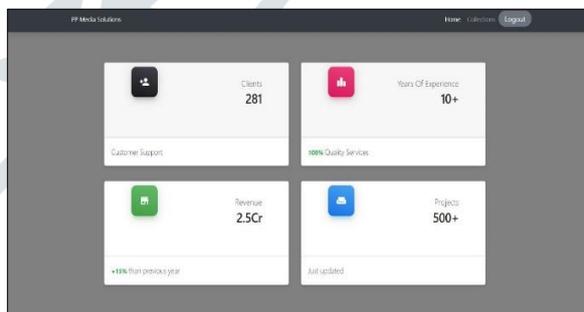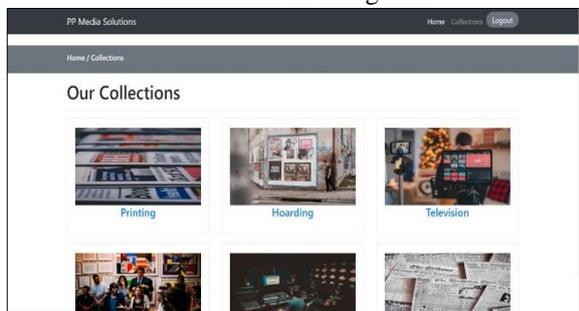Services

Portfolio

Contact us
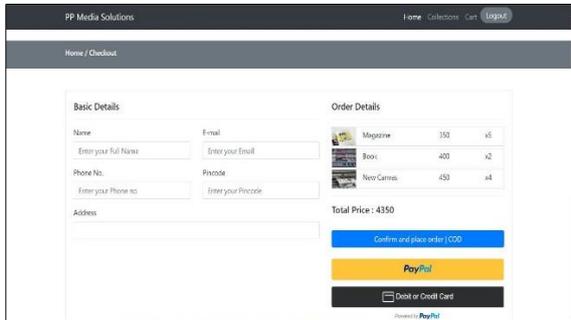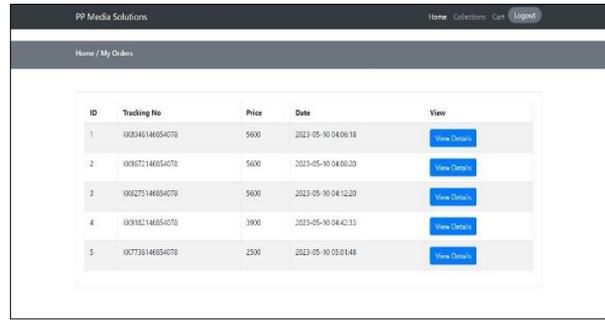

Chatbot

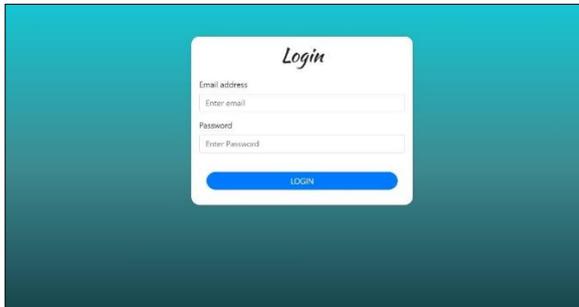
User login/signup

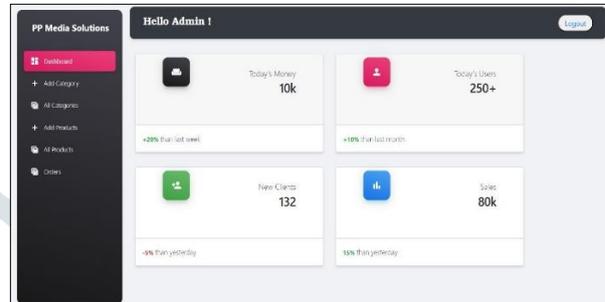Users' Dashboard

Collections of Categories

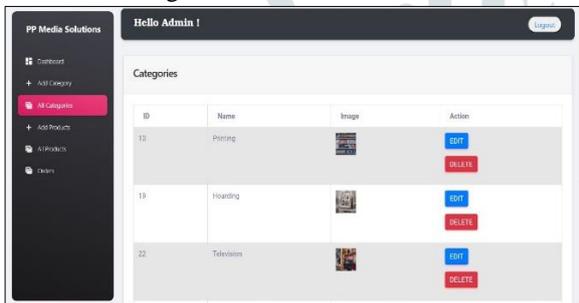Product-view

Checkout/Payment

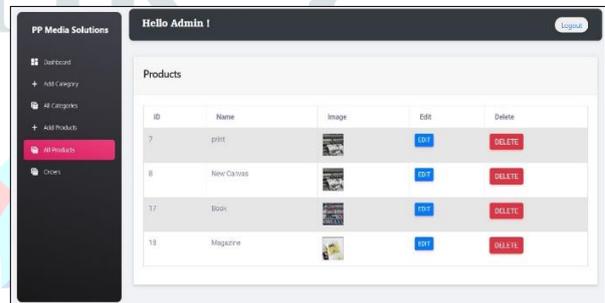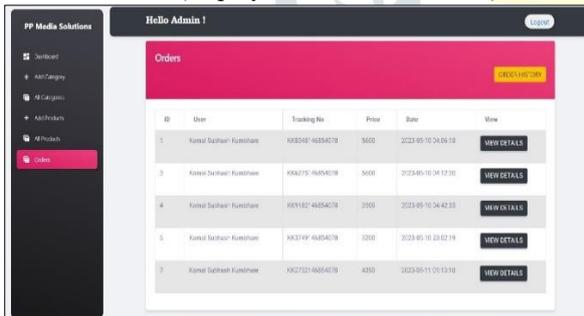Users' Order section

Admins' login

Admin Dashboard

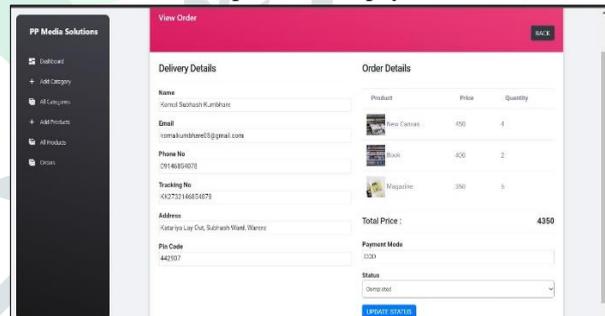Categories it can be added/edited

Products can be added/edited

Orders (display the orders' of clients)

View Orders(update status/payment mode)

IV. IMPLICATIONS

For the organization and its clients, this endeavor may have important ramifications. Here are some possible effects. By developing an advertising website, the business can expand its audience and raise brand recognition. The website can be used to highlight the business's goods and services and to share background data about its founding, goals, and principles. By offering a user-friendly interface, simple navigation, and interesting content, the website may enhance the customer experience. This can promote repeat business by boosting client satisfaction and loyalty. The business can boost sales and revenue by promoting its goods and services online. Calls to action, exclusive deals, and promotions on the website might entice visitors to make a purchase. Customers may use the website as a channel to contact the business and receive assistance. A contact us page, a FAQ section, and a knowledge base are examples of this. To offer real-time service, the website may also have a chatbot or live chat option. By developing an advertising website, the business can outperform its rivals. The website can assist the business stand out from its rivals and offer a special selling point that draws clients. In general, the project's effects might have a big impact on the business, its clients, and its

stakeholders. The business can improve customer satisfaction, boost sales and revenue, offer better customer assistance, and gain a competitive edge by developing an efficient advertising website.

V. CONCLUSION

We conclude that the Bulletin Web Application was created with the intention of enhancing and promoting the client's business on a global scale. A feasibility analysis was carried out throughout the project to make sure it was viable and satisfied the client's needs. Additionally, the project was planned and carried out utilizing the proper project management approaches, such as Waterfall or Agile. To make sure the system complied with the project's requirements and standards, extensive testing was also carried out. An advertising website that helped the client's business processes, helped the sales department by organizing and categorizing customer projects and boosted the client's global online presence was produced as a result of the project's successful implementation. The website was made available to users from all around the world thanks to the adoption of a dependable and expandable hardware infrastructure. The client was pleased with the outcomes, and the project was successful overall. Future software development projects can benefit from the significant insights and experiences learned from this project.

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