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KRAYA: Shop Management and AutoServices Portal

Gokul Raj[1], Neethu Susan Joy[2], Sithara V[3], Akhila Baiju[4], Thomas P Y[5], Linda Sebastian[6]
[1, 2, 3, 4, 5, 6]*Department of Computer Science and EngineeringCollege of Engineering Kidangoor, Kottayam, India*

Abstract: ***Online shopping and travel has influenced the way we live in today's world. It has made life comfortable and easier. The growth of these have completely changed the shopping and travel scenario as the customer does not have to physically visita shop or wait for long to avail a travel service. This has affected the shops and travel options like auto rickshaws in rural areas. The over reliability of these services has reduced the sales and income of small scale shops and auto rickshaw drivers. The main objective of this web application is to highlight the services in rural areas and provide a platform for people to access these services easily. This web portal brings together shops and auto drivers in rural areas to showcase their products and improve their income. Here, the user can find information about various shops and their products and shopkeepers can add products and sell them. The feature of auto rickshaw availability provides information about auto rickshaws that are available for travel and we can access them according to our requirements. A chat bot feature is also provided for addressing queries and filtering abusive comments. The main emphasis lies in providing a user- friendly experience where the user gets the desired results specificto their needs.***

Index Terms: shop, auto service, rural areas, chatbot.

I. INTRODUCTION

E-Commerce is becoming popular and expanding widely with the help of the internet. People rely on them for buying and selling things. There is an increasing trend of online shoppers throughout the years and there is also a small group who are reluctant to use these services due to security reasons. Also, online travel has also made its place in this develop- ing world. Since, major E-Commerce companies attract their customers by providing attractive offers, this has significantly affected shops in rural areas. If the shops there were given an opportunity to sell their products online, it would benefit their sales and income. Auto services are also drastically affected by the newly emerging travel options and this system can act asa helping tool to solve transportation problems. The system's aim is to improve these services in rural areas. The Admin, Shopkeeper, Auto Driver and Customer are the major entities in this system. Admin can log in and has the provision of verifying the shopkeepers and the auto drivers. They can also add product categories and subcategories. Shopkeepers can log in and can add, edit and delete their products and view the orders of customers. Auto Drivers can log in and add theirauto rickshaws and update about their availability for both travel and delivery. Customers can login and view products, add them to cart, buy them and add delivery if needed. They can also check auto rickshaws available for travel.

II. OBJECTIVES AND SCOPES

The main objective of this project is to enable the pro- vision of online services to rural areas that thereby benefittheir income and expand their business. The goal of this proposed system is the provision of a platform for shopkeepersto showcase their products and for auto drivers to provide transportation services. The customer can get information about products and have access to booking auto services. The system reduces the time and effort behind going to shop and purchasing. It helps in accessing services easily and the interface is easy to understand for usage.

The major reason behind this project is to widen the business of these services in rural areas. There are many smallscale shops who rely on the shop's income to live and the introduction of technology has impacted them vastly causing them to end their only source of income. Also, many auto drivers are also forced to find other jobs as the trend of online transportation like taxis increased.

III. LITERATURE SURVEY

Mr. Anal Kumar and Professor. A B M Shawkat [1] proposed i-SHOP: A Model For Smart Shopping. The paper discusses the importance of electronic commerce intoday's world and identifies the factors that make online shopping a better and more popular choice among people. The main aim of this paper was to introduce a smarter shopping model that focuses on customer satisfaction andattitude towards a smarter model. The implementation consisted of nine modules namely Registration Module, Products Browse and Products Search Module, Shoppingcart Module, Shipping Billing Module, Payment Module, Admin User Management, Admin Catalog Management and Admin Order Management Module.

The proposed model was a smarter system where the requirements wereknown beforehand and that allowed customers to shop using the internet. The advanced system capabilities that the proposed system provided to the vendors included features to update customer records, to view and update order status. The other features include multiple paymentfacilities, multi language and multi currency facility alongwith good backup. Thus, this paper identified the measureof customer satisfaction to a new smarter model and how its newer features provided it a better scope.

Rohan Padaya, Sumeet Suvarna, Ankit Channe and Chin-tan Shah [2] proposed Smart Local Shopping System. E- commerce giants like Amazon, Flipkart have cemented a market of their own as they supply the smallest of the household item to large luxurious items at the fingertips of the purchasers. This has created instability within the market as local shops. Local shops lack exposure to this online trade which successively affects the economy of local markets. The important aim of this project isto bring the concept of online shopping into the local market thereby giving an opportunity to the local shops toexpand their business. Also aims at providing a platform which allows users to urge information about the supply of desired product in their respective local shops at optimal cost and distance. It mainly encourages healthy competition within the local market and avoids monopolyand to produce appropriate recommendations to userssupported their search history.

Gaurang Malvankar, Hitali Thakur, Sheetal Walse and Prof. Devikarani Roy [3] proposed Auto Rickshaw Book-ing System. In the viewpoint of drivers as well as passen-gers there are some flaws in the conventional system of auto rickshaw. Sometimes the meter may get tampered and so there exists a mistrust between the drivers and passengers. Drivers are often criticized for tampering of meters, overcharging, refusal to travel a small distance and passenger safety. Auto rickshaw hiring is in online mode in Auto Rickshaw Booking Management System. The customer can easily book an auto rickshaw and the driver can easily track down the booking using this system. So this is beneficial for both of them. This system objective is to minimize the complaints and inconve-nience of both drivers and passengers. Also concentrates on women safety.

Yoshitaka Sakurai, Takashi Kawabe, Takahiko Sakai, Kouhei Takada, Setsuo Tsuruta and Mizuno Yoshiyuki [4]proposed A sale-oriented online-shop management sup- port method for e-commerce to make better page access and purchase rates it is essential in e-business to design sales web pages proposing attractive services for popular products. Online shop owners needed to carry several kinds of sales oftentimes year-round to hold back the customers. In addition to these web pages, management of product databases is expected to establish complicated sales content with great efficiency and reliability. This method is proposed to fulfill this need. In this approach, online shop owners make use of a sales managementweb page to design attractive sale pages consistent with their database utilizing sales knowledge produced and modified by software agents. The automatic construction and interactive modifications of sale pages, as well asthe automatic/interactive update of database for each sale product group, can be achieved consistently and dynamically, synchronized with the sale.

IV. PROPOSED METHOD

The task of the proposed system is to provide an user in- terface that is easy to access for customers. Also, shopkeepers and auto drivers can add their products and auto rickshaws respectively. For this, we create a portal using HTML, CSS and JavaScript as front-end and Python Django as back-end. A chatbot is provided for assistance which is created using chatterbot. Chatterbot is a library in python that generates a response to user input. In addition, there is Text-to-Speech andLanguage translation feature. As the web portal emphasizes a particular rural area, the regional language of that area is used for translation. Also, there is a budget module that calculates profit or loss according to the fixed budget provided.

V. SYSTEM DESCRIPTION

A. Architecture

The system begins by the user using the Internet to access the web site. They can either shop for products orbook auto service for transportation.

The system has four main modules namely Admin, Shopkeeper, Auto Driver and Customer. Other modules include Chatbot module, Malayalam language interface for web application and Textto Speech. Customers can login and view shops added bythe shopkeepers, add products to cart, buy products, make payments and add auto service for delivery. There is also another feature where the customer can directly book an auto rickshaw for traveling. Here, they can view the availabilityof nearby auto services and send requests and avail the service. The addition of chatbot for assistance increases the understandability of the portal's functionality.

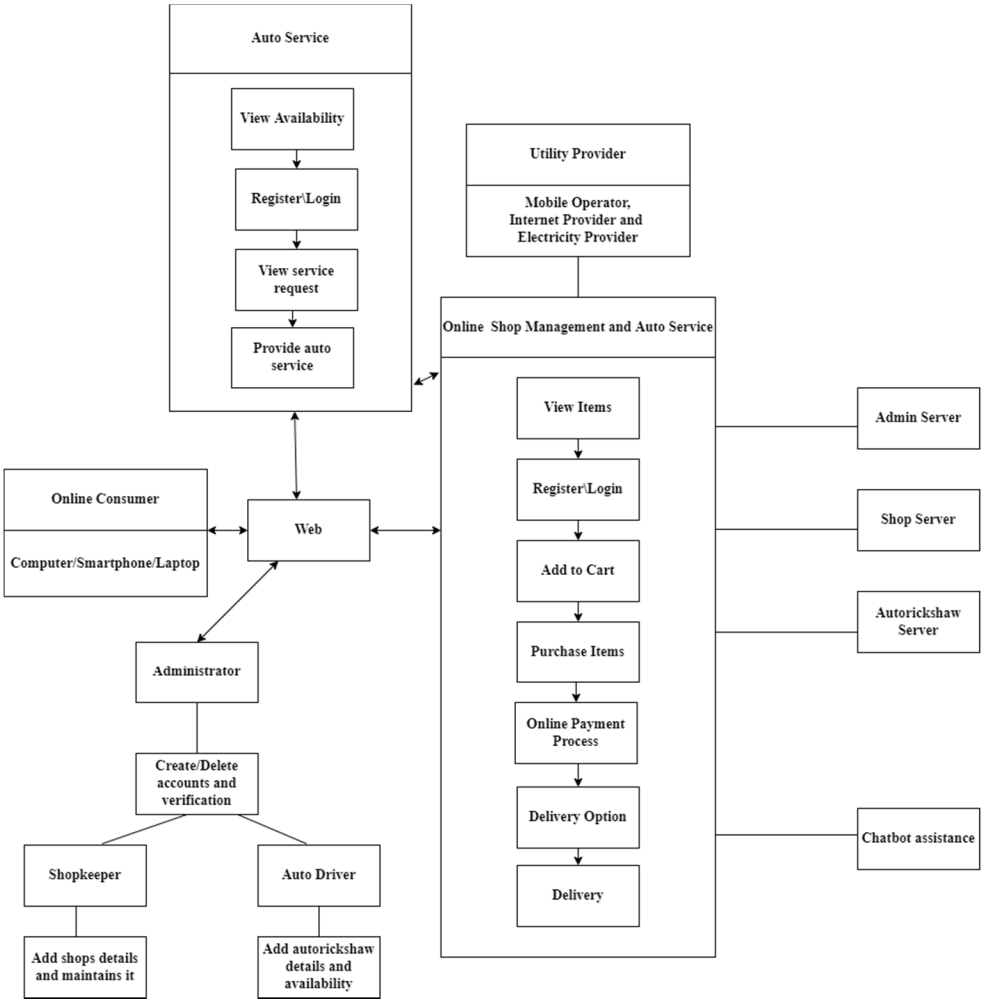

Fig. 1. Architecture

B. Modules

The proposed system consists of the following modules :

1) Admin: Admin logs in with username and password and has the func- tionality of editing, updating, deleting shopkeepers and auto drivers. They can verify their identity. Only after verification from the admin, the shopkeepers and auto drivers can access the portal. In addition, they can add product categories and product sub-categories.

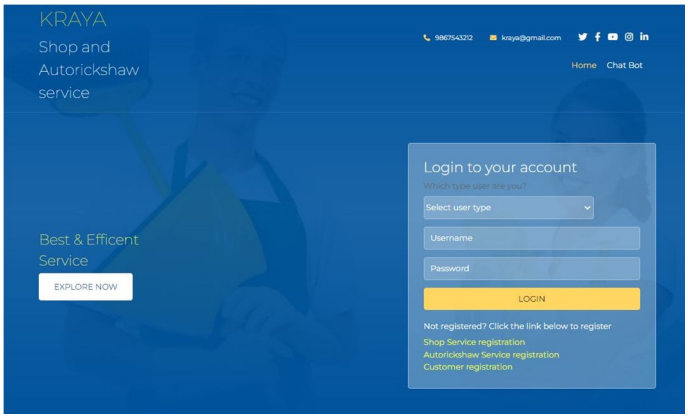

Fig. 2. Login Page

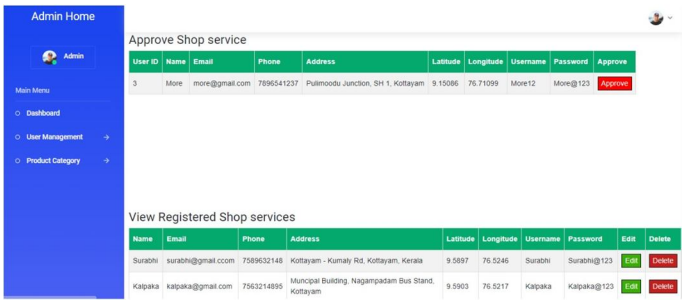

Fig. 3. Admin Page

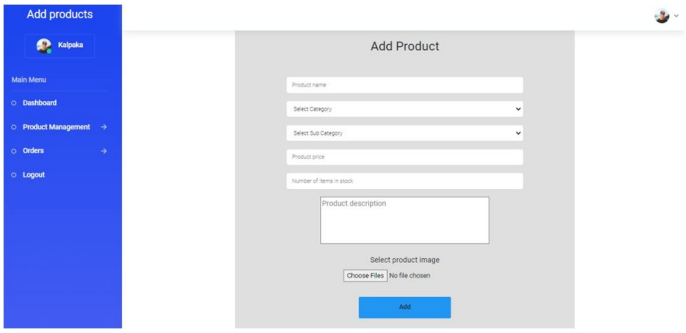

Fig. 4. Shop Page

2) *Shopkeeper:* Shopkeeper logs in with username and password after being verified from the admin. Then, they can add products with product details by selecting category and add details like price and description. They can update stock, delete and edit products previously added. Also, they can view orders of customers, their location details and payment details. Finally, they can log out of the portal after the required work is done.

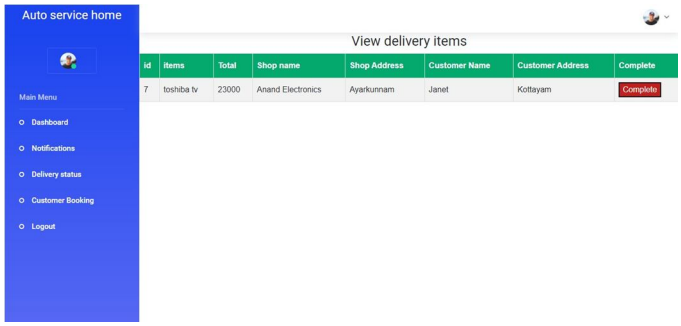

Fig. 5. Auto Driver Page

3) *Auto Driver:* Auto Driver logs in with username and password after being verified from the admin. Then, they can view the booking details from customers who requested auto service fortransportation. They can view notifications from customers who availed the delivery service for shopped products. They can also update delivery status after the delivery is completed.

The location details of the auto driver are provided for customers to view.

Fig. 6. Customer Page

4) *Customer:* Customers log in with username and password and have the provision to view shops and the products under each category. They can know more about the product through the description provided and also the price of the product will be specified. They can add products to cart and buy products using online payment. In addition, they can book an auto rickshaw fordelivery of products and also use the service for transportation.A chatbot is enabled for assistance.
5) *Chatbot:* Chatbot is created using chatterbot which is a library in python that generates a response to user input. It is trained using given data and then implemented on a web application.
6) *Malayalam Language Interface for web ApplicationModule:* Google translator API will be used to change language of web page. Here, we use Malayalam language as the projectis designed for a particular rural area.
7) *Text to Speech Module:* Google text to speech API will be used to convert selectedtext into speech. It is provided for easy understanding of the interface and its contents.
8) *Budget Module:* Budget module manages and tracks income and expenses. Shops often have budgets for individual products as well asan overall shop budget. Budgets account for all profits and losses incurred by a product or shop. Here, profit or loss is calculated based on a fixed budget.

VI. SYSTEM REQUIREMENTS

A. Software requirements

1) *HTML* - HTML(HyperText Markup Language) is knownas the building block of the Web. It is used to definethe structure of web content. Other technologies besides HTML are generally used to describe a web page‘s appearance/presentation (CSS) or functionality/behavior (JavaScript). ”Hypertext” means a link that interconnects web pages within or between websites. Links are a fundamental aspect of the Web. One can upload content to the Internet and link it to pages created by other people to become an active participant in the World Wide Web.
2) *CSS* - Cascading Style Sheets (CSS) is a style sheet language used to describe the display of documents written in HTML or XML (including XML directs such as SVG, MathML, and XHTML). CSS describes how elements are rendered on screen, paper, audio, or other media. CSS is among the core languages of the openweb and is standardized across Web browsers according to W3C specifications.
3) *JavaScript* - JavaScript (JS) is a lightweight, interpreted, or just-in-time compiled programming language with first-class capabilities. The most well-known web page scripting language, it is also used in many non-browser environments such as Node.js, Apache CouchDB, and Adobe Acrobat. JavaScript is a prototype-based multi-paradigm, single-threaded, dynamic language that supports object-oriented, mandatory, and declarative(such as functional programming) styles. JavaScript runs on the client side of the web, which can be used todesign / program how the web pages behave on the occurrence of an event. JavaScript is an easy to learnand also powerful scripting language, widely used for controlling web page behavior.
4) *Python Django* - Django is a high-level Python web framework that is used for rapid development and gives clean and pragmatic design. It takes care of much of the hassle of web development and that helps in focusing on writing the app without needing to reinvent the wheel. It is both free and open source. Django was designed in order to help the developers take applications from concept to completion as faster as possible. Security is taken seriously and that helps developers avoid manycommon security mistakes. Many of the busiest sites on the web utilise Django’s ability to quickly and flexibly scale.

VII. RELEVANCE

1) Products from local stores can be purchased online andit can be delivered to your home by auto rickshaw. Also, auto services in rural areas are utilized properly.
2) This system will improve and increase the income of localshopkeepers and rickshaw drivers.

VIII. FUTURE SCOPE

1) Development of mobile applications for the web portal.
2) Expanding the system’s services to wider rural areas
3) Add optimized real-time GPS service or Google Maps integrated into the system to enable insight disclosure and further encourage users with auto rickshaw bookings.

IX. CONCLUSION

Online shopping is rapidly turning into a new trend becauseof its simplicity. Everything one needs is available online. In this busy world, it is time-saving and easy. As a result, this trend can be introduced locally for building web portals of shops and thereby increasing local sales. Through the web portal the provision to use the auto rickshaw booking service isenabled not only for travel, but also for delivery of goods fromshops on the web portal. Thus, it helps to improve the income of local rickshaw drivers. If one wants to buy something, they do not have to leave the house. All they have to do is register on the web portal and buy what they need. An auto rickshaw can be used to deliver the product. This system allows you to book an auto rickshaw online, thereby improving the lives of people in rural areas.

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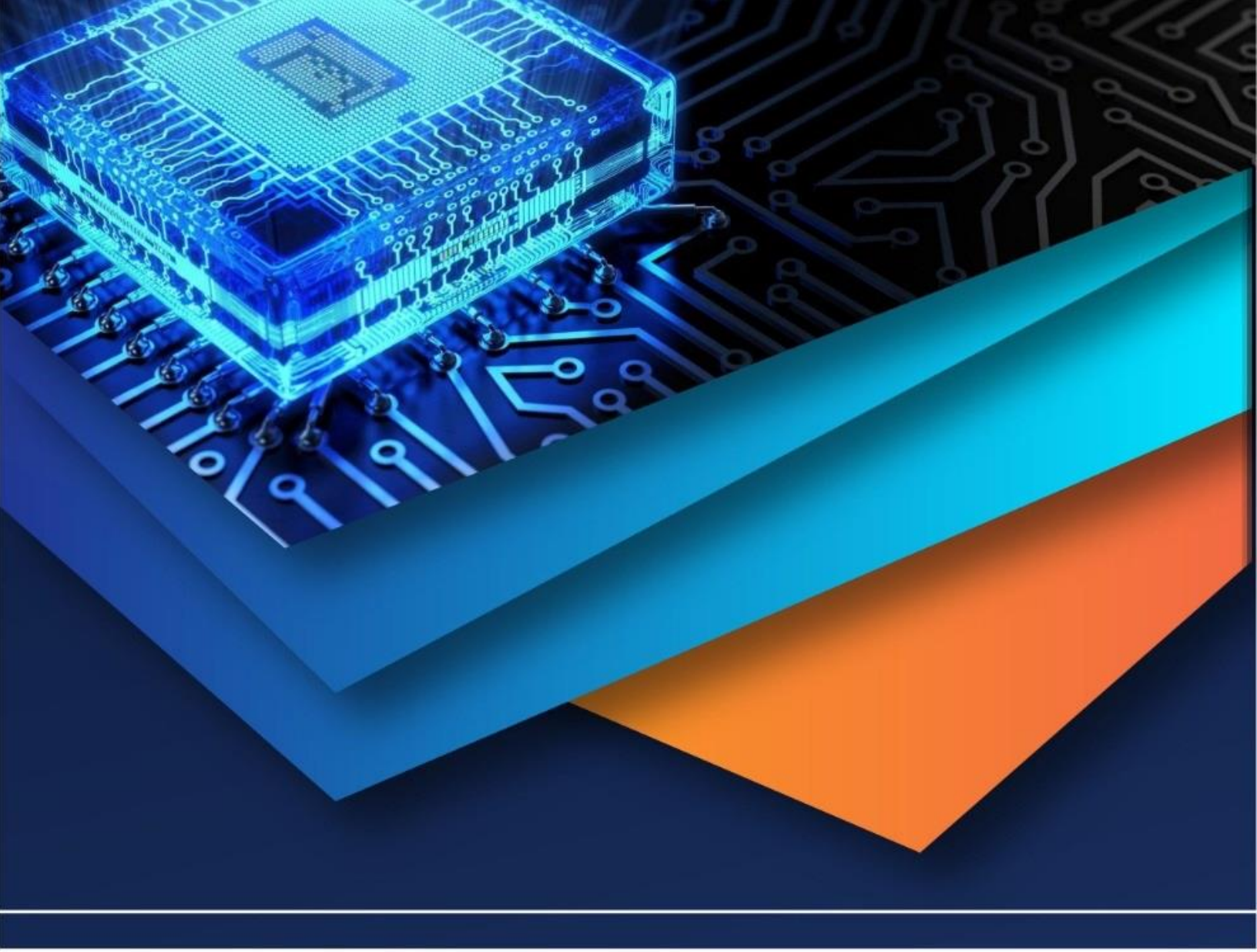

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