LUXURIOUS CREATION:
(Visualize Around Yourself with AR)

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ABSTRACT

The "Luxurious Creation: Visualize Around Yourself with AR" research aims to revolutionize furniture shopping websites by incorporating augmented reality (AR) technology. Leveraging the power of AR, users will be able to visualize how various furniture pieces would look and fit within their own living spaces before making a purchase decision. The research involves the development of an innovative website that seamlessly integrates AR capabilities, allowing users to interact with virtual furniture in real-time. Augmented reality can significantly impact the furniture industry, providing customers with a novel and immersive shopping experience, and empowering them to make well-informed buying decisions from the comfort of their homes by bridging the gap between virtual shopping and real-world applications. The research aims to enhance customer confidence and satisfaction, minimize returns, and revolutionize the way furniture shopping is conducted online. The key objectives include augmented reality integration, a user-friendly interface, and mobile compatibility.

Keywords: Augmented reality, Virtual integration, Online shopping.

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1 INTRODUCTION

The "Luxurious Creation: Visualize Around Yourself with AR" project aims to revolutionize furniture shopping websites by incorporating augmented reality (AR) technology. Users will be able to visualize how various furniture pieces would look and fit within their own living spaces before making a purchase decision .The project aims to enhance customer confidence and satisfaction, minimize returns, and revolutionize the way furniture shopping is conducted online.

This encourages the user to buy furniture online by providing a user-friendly environment. The problem of size and colour is being solved. A customization feature is also provided. It will lower the return of items due to any issue caused by shopping online.

Utilizing AR allows customers to virtually place furniture items in their own living spaces, enhancing the online shopping experience by providing a realistic preview of how the items will look in their homes. HTML, CSS, and JavaScript enable the creation of a visually

appealing and user-friendly interface, enhancing navigation and making the website more engaging for visitors. JavaScript can be used to implement real-time customization features, allowing users to modify furniture colours, materials, or dimensions instantly, providing a personalized shopping experience. AR can seamlessly integrate 3D models of furniture into the website, allowing customers to view products from different angles and explore intricate details before making a purchase.

The paper discusses the use of augmented reality in the furniture industry by allowing users to view and select multiple 3D models of furniture items in a virtual representation of the real world. Augmented reality can be used in the furniture industry to allow customers to view 3D models of furniture in their home or office environments before making a purchase.

2 LITERATURE REVIEW

In (Saidin et al., 2015), The paper introduces the research articles in simplified HTML, which is a web-first format for writing HTML-based scholarly papers.

In (Peroni et al., 2017), This paper presents a tree logic for algorithmic reasoning about CSS selectors, i.e., by developing algorithms for deciding the satisfiability of formulas in the logic.

In (Genevese et al., 2012), This paper presents the framework for developing a Mobile Augmented Reality (MAR) and is about the designing of mobile augmented reality (MAR) applications.

In (Paula et al., 2020), The writer highlights the way of using and taking advantage of 3D models in real life. The 3D models provide almost real-life experience.

In (Quintero et al., 2019), This paper appears to provide an overview of the research methodology, including the search process and analysis of the selected studies.

In (Silva et al., 2003), The paper describing the main concepts of Augmented Reality, its current applications, and important AR devices. The overview of characteristics of Augmented Reality systems and discussions on future directions.

3 TECHNOLOGY USED

1. **HTML:** HTML is the latest version of Hypertext Mark-up Language, used for structuring content on the web. It introduces new elements, attributes, and APIs for enhanced multimedia, graphics, and interactivity in web pages.
2. **Cascading Style Sheets (CSS):** Cascading Style Sheets (CSS) is a style sheet language used to design the presentation of a document written in HTML or XML. It

defines how elements are styled, positioned, and formatted on a webpage, enhancing the visual aspects of the content.

3. **Augmented Reality (AR):** Augmented Reality (AR) is a technology that overlays digital information, such as images, text, or 3D models, onto the real-world environment. This is typically done through devices like smartphones, AR glasses, or headsets, providing an interactive and enhanced experience by blending the physical and digital worlds.

4. **Xampp Server:** Xampp is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, Maria DB database, and interpreters for scripts written in the PHP and Perl programming languages. It's commonly used for local development and testing of web applications.

5. **3D Model:** It means the content needs to be realistic, spatial, and engaging. And while there are thousands of apps online, most companies are still figuring out what compelling content looks like in AR. In this post, we're diving into the role of content in augmented reality, the challenges the industry faces, and the future of spatial content.

These technologies enhance the functionality, aesthetics, and exclusivity of the Luxurious Creation website.

4 FLOW CHART

In Figure 1, Users can log in, register, or explore anonymously on Luxurious Creation's website. After reaching the home page, they can navigate through furniture categories, select one, and view 3D models by clicking "View in AR." Android users can visualize the furniture in their space. Customization is possible through the "Contact" tab's form. After finalizing the design and color, users complete transactions. Later, they provide feedback in the "Feedback" tab to share their experience.
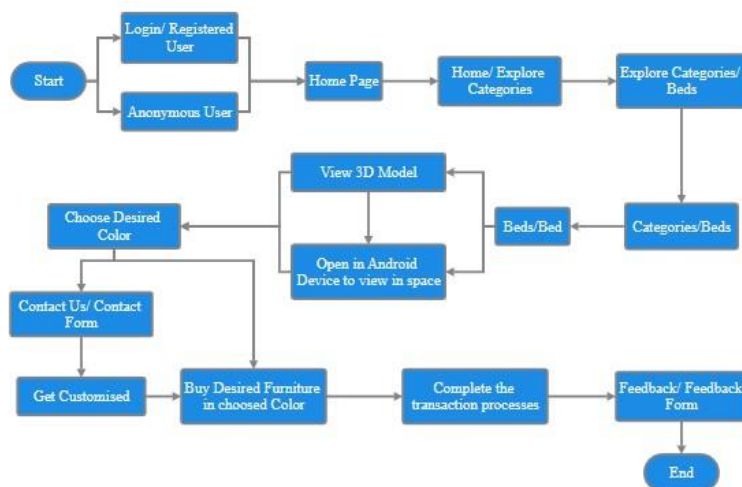

Figure 1. Flow chart of Luxurious Creation

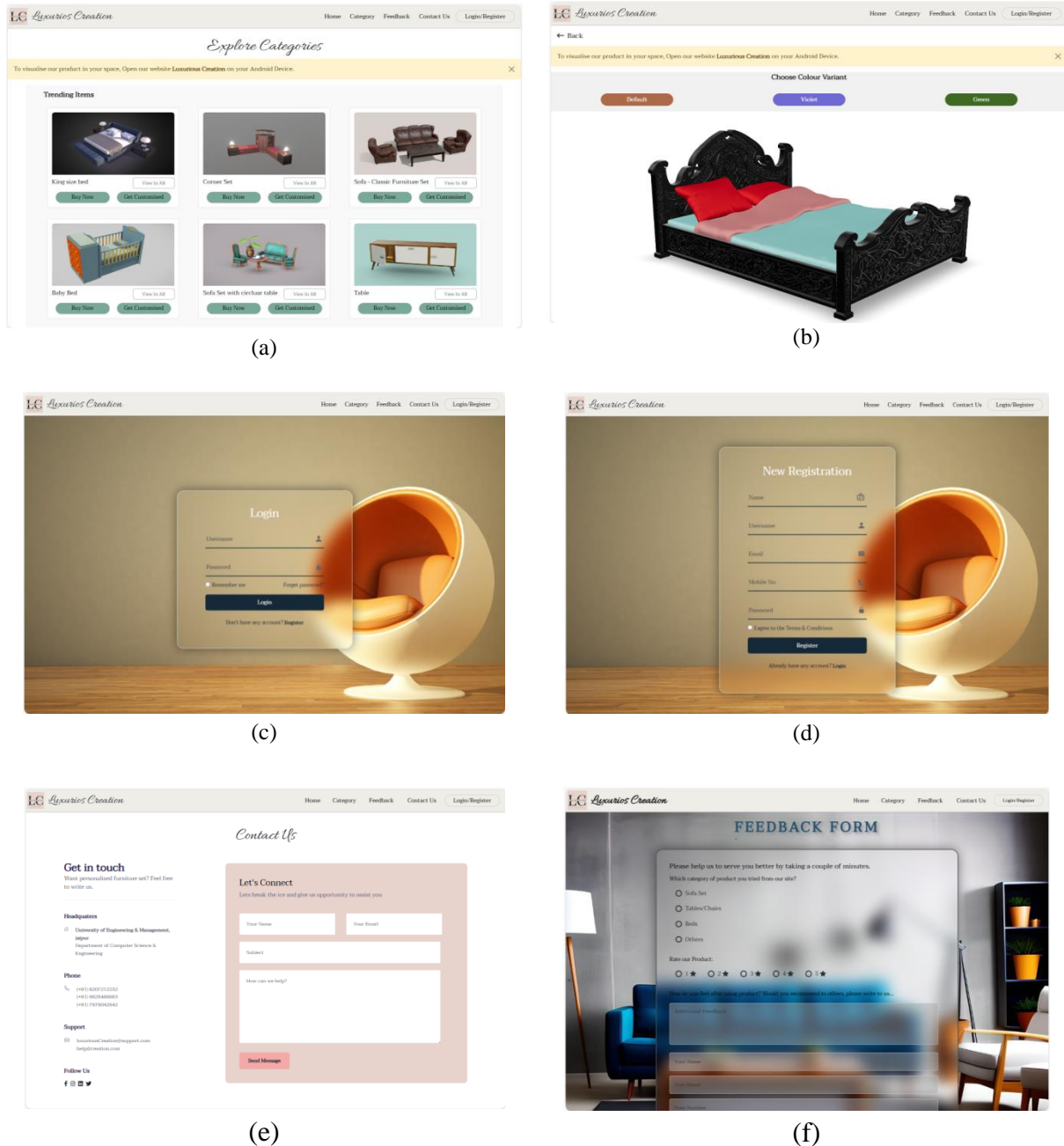# 5 OUTCOME

(a)

(b)

(c)

(d)

(e)

(f)

Figure 2. (a) to (f) is outcome of Luxurious Creation

In Figure 2(a), User can explore different sections where a variety of furniture are listed on the website for selling and personalized customization and by feeling the furniture in their space. In Figure 2(b), User can choose the different colour variants of their desired furniture and to view in their space a message is displayed where it is suggested to open on an Android device. Users can resize and rotate the furniture to be satisfied with the furniture model. In Figure 2(c), Users can log in to the website get convenience in ordering the product. In Figure 2(d), User can register a new account in case of new customer. In Figure 2(e), Users can contact us for any personalized order or any help. They can contact us on social media or

through calls or email at their convenience. In Figure 2(f), User can share their product and website reviews. They can rate the product based on their expectation.

6 CONCLUSION

Luxurious Creations, the AR-powered furniture website, combines cutting-edge technology with exquisite design, offering users a seamless virtual shopping experience. With augmented reality, customers can visualize furniture in their own spaces before making a purchase, enhancing confidence and satisfaction.

The fusion of technology and craftsmanship positions Luxurious Creations at the forefront of the online furniture market, redefining the way customers engage with and select high-end pieces for their homes.

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