An Android Based Application for Revolutionizing Home Design

Mr. T. Madhu[*1]   K.V. Hemanth[*2]   Sheldon Shaji[*3]   V. Nikil[*4]

*Associate Professor[*1]   Scholar[*2,3,4]*

*Department of Information Technology, Nalla Narsimha Reddy Education Society's Group of Institutions[*1,2,3,4]*

Abstract

Home design app is a fresh mobile application for homeowners, tenants and people who are keen on improving interior and exterior outlook of their houses. It has both abilities to transform and create an initial structure. The app uses the latest technological innovations to provide decorative hints or suggestions in exterior and interior environments. Therefore, the company serves as an answer hub for those who desire to enhance aesthetic beauty and the house's structure. The inventory for this application is quite big and includes everything right from furniture, to lighting, painting shade color, landscaping among many other decorative ideas. They will be able to find different kinds of products and designs that create comfortable and attractive spaces within their environment at home. Finally, this app is a complete approach to design that transforms the way people do their designs.

Keywords – Android studio, Java, Frameworks, UI/UX Designs.

I.   Introduction

The 2D home design app. an exclusive tool for tapping creativity in interior and architectural designs. Our app seamlessly combines intuitive usability with state-of-the-art technology to help homeowners, architects and interior designers see and conceptualize their ideal living spaces. Our design tools are built with a friendly interface that enables users to develop detailed floor plans and effortlessly manage room layouts, doors, and windows.

The app has broad inventory with lots of furniture, fittings and building material, and hence it allows its subscribers to select the best environment. While serving for beauty purposes, our app provides a possibility of an exact measurement and scaled accuracy in planning. Discover interactive collaboration through the use of multiple co-editors in real time which enables users to sync ideas, exchange notes, and perfect designs simultaneously. Our custom home design app provides an easy way to track costs from cost estimation to budget tracking. For

designers and homeowners who want to live the endless limitless possibilities of home design in second dimension is a new visual trend that will change the way people imagine their homes and how they actually materialize it. It is also time for a change.

Practical considerations are also addressed in the app where there are cost estimation tools, cost checking and design exporting facility for easy sharing. Security mechanisms help in safeguarding private information, while user support aspects and constant improvements make for a satisfying experience over time. The Homes Design App is suitable for different devices starting from mobile phones up to laptops and offers users an opportunity to realize their dreams in house design.

II. Literature Survey

Home design app literature review indicates this is a nascent interdisciplinary field bridging technology, architectural and other study streams in response to high demand for individualized and efficient house planning services. The apps depend on advances in mobile technology, AR and AI that allow users generate the desired environment for themselves.

As several research indicates, on the transformation effect of Home Design Apps and architecture and interior design industries. Smith et al., 2019) argue that AR represents a huge opportunity since users get to see virtually placed objects within their viewable environment. The design is meaningful because it reduces the complexity of decision-making, creating an engaging environment and hence simple to understand design.

This study is by Chen et al., 2020 where they examine using AI algorithms in Home Design App that analyzes a user's preference and offers personalized designs accordingly. User studies have provided strong evidence that an adaptive approach is well-suited as it appeals to people tastes, and makes them satisfied.

Most recent researches about Home Design Apps, like one of Jones et al., 2021, focus on intuitive interfaces. This emphasizes the necessity of designing that will be easily understood and implemented even for users with little understanding and training about architectural principles.

However, the literature reveals that many individuals desire to deal with the socio-economic aspects of room designing aided by such apps. This study by Kim and Lee (2022) also examined some app-based collaboration tools through which the designers could share their models,

provide and receive constructive feedback or sometimes have virtual design collaborations. It also widens up the scope and uses the socio-behavioral aspects of points that some of these literatures address. According to Garcia & Martinez (2021), Design based databases should be recent as they depict taste, new trends and tastes, which is meant to remain up-to-date.

This implies that a literature survey suggests that Home Design Apps have some problems related with technology, user friendliness and social cooperation. In fact, the thinking about new approaches in interior design should be recognized as a serious trend in studying contemporary application of most household items.

III. Existing System

In the current mode, one is required to seek consultation from the architect for the house plans. In addition, there are many steps in designing home design which involves key players. These include project management, and communication among all the player involved in a build. The process involves purchasing of materials from suppliers and management of the construction site for safety purposes and quality of services provided.

decision making for design.

Privacy issues regarding data security and a competent database design constitute some

IV. Proposed System

This application presents all exterior designs in addition to interior designs based upon the client's needs. It will provide resources such as wall arts, ceiling, Flooring, Paintings and kitchen, cupboards etc. The external designs will feature house plans covering the plot size of 150 acres, 200 acres, 250 acres respectively. The customer base will determine each of these, including every layout and design element. The customer will be able to pick from the 2D images under each and every category. They will have the ability to zoom and view the image in high definition. That categorization will also determine the price of the image. However, if a customer shows interest in that category later on, it will be directed towards WhatsApp whereby the customer will be able to discuss various specifications for the products if he is not comfortable with any color chosen or any other details in that image.

V. Future Enhancement

In the Future, we will be adding the 3D layout designs. If we provide the input image of our room it should be able to provide the suggestions like color, designs based on the color they have chosen. And also, if the user provides the any suggestion on that image, it should be done in the app itself with the help of the assistants in the app (like a chat bot). The app will also provide the Payments and the Subscriptions for the Premium Images and Layouts in 3D.

VI. Conclusion

It is always considered as one comprehensive shop where an individual intends to improve his home's beauty and purpose. The library is equipped with many different products regarding indoor and outdoor design as well as light fixtures, paintings, flowers, etc. They use it to create functional as well as beautiful living spaces for them by exploring different products and styles that would best suit their space. This will lastly make the customer side of the home designs and development demands complete.

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VIII. Websites

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