SMART COMMUNICATION
(HUMAN WELFARE ASSOCIATION, VARANASI)

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In partial fulfillment for the award of the degree

of

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At

GAIN MORE KNOWLEDGE
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PRESIDENCY UNIVERSITY, BENGALURU

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PRESIDENCY UNIVERSITY

SCHOOL OF COMPUTER SCIENCE ENGINEERING

CERTIFICATE

This is to certify that the Project report **of "HUMAN WELFARE ASSOCIATION, VARANASI (SMART COMMUNICATION)"** is being submitted by **"SUHAS H, K VISHAL, SONAL PRAMOD VERNEKAR"** bearing roll number(s) **"20211CSE0466, 20211CSE0565, 20211CSE0548"** in partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Computer Science and Engineering is a Bonafede work carried out under my supervision.

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DECLARATION

We hereby declare that the work, which is being presented in the project report entitled **SMART COMMUNICATION (HUMAN WELFARE ASSOCIATION, VARANASI)** in partial fulfillment for the award of Degree of **Bachelor of Technology** in **Computer Science and Engineering**, is a record of our own investigations carried under the guidance of **NITHYA B A, Assistant Professor, School of Computer Science Engineering, Presidency University, Bengaluru.**

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ABSTRACT

Handloom weavers, an occupation that remained passing down through generations, are plagued by low wages, poor working conditions, and the invasion of power looms, followed by a lack of entrepreneurial and managerial skills. This study focuses on the handloom sector of the ancient city of Varanasi, known for its culture and heritage, and discusses the working model of master weavers who play a vital role in the sustenance of this low-technology-driven industry. Low transaction costs, social capital, and responsiveness to the demands of the market make these master weavers relevant even today. Some initiatives of government intervention in this regard include the "Brand Handloom" initiative, collaboration with e-commerce companies, and skill development programs that deal with issues such as quality control and packaging, digital literacy of artisans, etc.

Investigating socio-economic conditions of weavers and dynamics of handloom value chain, it identifies significant opportunities alongside those that have lingered there - exploitation by middlemen and limited market access. The findings indicate that the need is for support systems more balanced than skill- and finance-focused interventions to create holistic packages combining skill up-gradation, finance, and market linkage to make individual weavers empowered and preserve their craft. The research highlights the need for holistic support systems that integrate skill development, financial aid, and direct market access. By fostering innovation and reducing reliance on middlemen, the handloom sector can achieve greater sustainability and competitiveness.

We firmly believe that given adequate opportunities, these artists can do wonders on the global platform. Our website: Lets the artisan register his/her account and upload his/her products there which includes the pictures, price, and other specifications. Provides statistics based on some important information such as sales done till date, his rank, total earnings, people who viewed his/her product. Gives them the freedom to organize self -created events based on mutual agreements. We would ask the interested artisans to enter the local events created by their fellow artisan. After they do this, their phone numbers would become transparent and hence mutuality promoted. The "Create Event" option would take care of this. This study offers a sound approach to integrating the ancient traditional handloom weaving sector into the global creative economy, where place, culture, and economics interact in harmony with one another. Strengthening the handloom sector not only sustains livelihoods but also helps keep rich cultural heritage and promotes regional economic development.

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- Number of weavers in rural vs. urban areas.

- Gender distribution in the weaving workforce.

- Access to government welfare programs.

- **Sources:** Ministry of Textiles, Government of India, Research papers on the handloom sector on ResearchGate.

Parameter	Value (Rural)	Value (Urban)
Average Monthly Income	₹5,000	₹8,000
Literacy Rate (%)	55%	70%
Access to Welfare Schemes	40%	60%

2) Table 2.1 Market Dynamics in the Handloom Industry

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- **Sources:** Export Promotion Council for Handicrafts, Government statistics on handloom exports

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2022	12.5	5600
2023	13.8	6200

3) Table 3.1: Problems Confronted by Handloom Weavers

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- **Sources:** All India Handloom Board, Reports from NGOs like Dastkar or AIACA

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Low Wages	75%
Raw Material Scarcity	60%
Market Competition	85%

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- **Sources:** World Bank Reports on Digital Empowerment, Insights from digital marketing studies

Feature	Description
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Data Analytics	Analyze sales trends to improve revenue
Payment Gateways	Support for digital payments like UPI

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- **Sources:** Reports from Digital India initiatives, Field surveys conducted by NGOs

Parameter	Percentage
Smartphone Ownership	70%
E-wallet Usage	40%
Participation in Workshops	25%

CHAPTER-1
INTRODUCTION

Handloom weaving, as an essential constituent of rich cultural and economic heritage, represents generations of traditional craftsmanship in India. The city of Varanasi, over the ages, has become synonymous with the global textile industry for its Banarasi sarees, and the handloom industry stands testimony to the ongoing legacy of history. This craft goes into the millions of lives as a source of livelihood while speaking at a global level about the identity of India. As a result, however valuable to the culture and economy, the handloom sector faces many challenges against its survival in this fast-paced world where people wish to be as modern as possible. Varanasi, this oldest continuously inhabited city in the world, is known for spiritual significances, but it is also celebrated and renowned for this rich tradition of handicrafts and artistry. On the banks of the Ganges River, the city comes alive with its own history that serves as an epicenter of creativity, as skilled artisans have been perfecting their crafts through generations.

Varanasi handicrafts are as varied as they are elegant. Scarcely any cities compare to the silken splendor of its intricate weaving processes, particularly when it comes to the most celebrated Banaras sarees - known for resplendent Zari work and gay colors. Most of these sarees are mostly handwoven by master weavers, thereby often worn as a reflection of grace and cultural heritage in Indian weddings and celebrations.

Besides fabrics, metalwork, pottery, wooden crafts, and decorative items have a very vibrant Varanasi. Artisans use ages-old techniques passed from generation to generation so that every piece reflects the soul of the city and passion of its creators.

The craftsmanship in Varanasi is not only about beautiful objects but also the story of these artisans. There is an enormous number of such skilled workers who are going through cruel challenges, including competition from machine-made products and economic instability. However, growing initiatives for sustainable practices and support to local craftsmen begin to gain more heads above the water, thus making these artisans flourish and keep their traditions alive. Customarily, dozens of visitors become attracted not only by the products but also by their history. In fact, it is in this area, regarding Varanasi Handicrafts, the city boasts about its contribution to the country's cultural identity. The city portrays the pride and speaks out with its creativity and resourcefulness.

1.1 Background and Context

The history of Indian painting finds its root in ancient times, beginning with early depictions on cave walls. These early creations, made using Indian red pigments and charcoal, served as a medium for early humans to express their thoughts and emotions. The remarkable artistry of these works has been discovered on stone blocks and cave walls in regions such as Mirzapur, Bhopal, Manipur, Singapura, Hoshangabad, Raigarh, Panchmarhi, Raisen, and Gwalior. The tradition of wall painting in India reached its zenith in the caves of Ajanta, Bagh, and Badami between 200 BCE and 700 CE. These masterpieces, crafted under the classical principles of art, showcase the remarkable naturalism and creativity of the era, marking it as a golden period in Indian art history.

Varanasi, often referred to as India's cultural capital, has long served as a repository of Indian heritage and artistry. Its walls, adorned with vibrant paintings, provide a window into the rich cultural tapestry of India. The wall paintings in Varanasi exhibit a harmonious blend of local folk-art traditions, as well as influences from Rajasthani, Mughal, and Company art styles, creating a distinct and unparalleled aesthetic.

While Varanasi's cultural prominence dates to the dawn of civilization, evidence of its artistic traditions became apparent only with the archaeological excavations of Sarnath and Rajghat. Although historians have yet to officially classify these works under a distinct 'Banaras' style, the findings from these sites provide clear proof of Varanasi's historical role as a center for art. Artifacts such as the Lion Capital of Ashoka from Sarnath, ancient stupas, terracotta sculptures, painted toys, and accessories from Rajghat demonstrate the rich artistic legacy of Varanasi. These remnants suggest that artistic traditions thrived here, contributing to the city's cultural identity. However, prior to the 18th century, few paintings from Varanasi survive. This scarcity is attributed to the dominance of the Mughal Empire, which limited the city's cultural development compared to other Mughal centers. Additionally, Mughal iconoclasm likely led to the destruction of architectural structures that might have featured significant wall paintings. Despite these setbacks, the enduring spirit of Varanasi's art and culture shines through, representing an integral chapter in the history of Indian artistic heritage.

1.2   Economy and Culture

The artisan economy of Varanasi is an intrinsic part of the city's cultural and economic identity, rooted in centuries-old traditions and craftsmanship. Known as the cultural capital of India, Varanasi has been a cradle of artistic expression, with its artisan's weaving tales of heritage

into every creation. From the exquisite Banarasi sarees to intricate brassware, elephant arts with wooden toys, and glass beads, the crafts of Varanasi are renowned worldwide for their quality and uniqueness. The artisans, often working in family units, have inherited these skills through generations, ensuring the survival of techniques that date back hundreds of years.

At the heart of this economy lies the iconic Banarasi saree, a symbol of luxury and elegance. More than 20,000 handloom weavers in Varanasi dedicate their craft to creating these masterpieces, which range in price from affordable options to high-end luxury items costing over ₹100,000. The saree industry alone contributes approximately ₹1,500 crores annually to the local economy, making it one of the most significant economic drivers of the region. However, the city's artisan economy is not limited to textiles. Crafts such as stone carving, beadwork, and metalwork showcase the city's diverse artistic traditions, each reflecting the rich cultural tapestry of Varanasi.

The socio-economic impact of the artisan community is profound, providing livelihoods to nearly one million individuals, either directly or indirectly. These artisans work tirelessly in often challenging conditions to sustain their crafts, many of which are endangered due to the rise of machine-made alternatives. Despite their significant contributions, economic vulnerabilities persist, with many artisan families living below the poverty line.

1.3 Impact of Tourism

Tourism plays a vital role in supporting Varanasi's artisan economy. Attracting nearly 60 million visitors annually, the city is a hub for cultural tourism, and local crafts are a major draw for these visitors. Festivals and events like the Vibrant Varanasi Festival provide platforms for artisans to showcase their work, enabling them to reach larger audiences and boost their incomes. Approximately 30% of artisan earnings come from sales to tourists, particularly during the festive seasons when demand for handcrafted goods surges.

In recent years, government initiatives and modern interventions have sought to address the challenges faced by artisans. Programs promoting the Handloom Mark and Geographical Indication (GI) status for Banarasi sarees aim to protect these traditional crafts from imitation and enhance their marketability. Training initiatives in modern design, e-commerce, and financial management are equipping artisans to navigate contemporary markets effectively. The rise of digital platforms has further transformed the artisan economy, allowing craftsmen to sell their products online and reach global customers directly.

CHAPTER-2
LITERATURE SURVEY

1. The Brief Introduction of handloom industry.

The handloom industry is one of the oldest and most significant textile production industries in India, with widespread repercussions to the culture of the country. Many of the studies carried out, stresses the socio-cultural significance of handloom weaving in the handloom weaving centers like Varanasi famous for exquisite designs and high-quality silk saris. According to research conducted by Sengupta et al. (2018), the sector of handlooms has provided jobs to millions around the world, especially in developing economies where there are many villages or semi-urban setups. However, this sector has been able to withstand other than, modern day challenges such as industrialization quality power-range textile weaving machinery such as power looms.

2. Problems Confronted by Handloom Weavers In addition to their economic, social, and structural problems, handloom weavers have the following on record:

a. Economic Problems

Low wages and unstable incomes are significant discouraging factors for new entrants into weaving amongst youngsters indicate various research studies, including that of Das and Singh in 2020. In this regard, the list of economic problems includes rising raw material costs, changes in market demand, and the unavailability of direct market access.

b. Social Problems

One of the key issues is that handloom weaving is often a family business that gets passed down the generational ladder. Alas, because of the stress of the poor working environment and no scope for education or multiplicity of skills, families are, increasingly, dissociating themselves from the craft. Verma's study in 2019 brought out the gendered aspects of these issues and cried very prophetically to save the women weavers who are worse off on the count of financial or social restrain.

c. Structural and Technological Challenges

The studies revealed that structural inefficiencies by Sharma (2017) and Kumar (2019) created unawareness of the quality standard.

3. Global Opportunity in Creative Economy

Handloom weavings have, in recent years, been part of the global creative economy. This brings to light, mainstreams, cultural and handmade products. According to Ghosh (2020), as a sustainable product and ethically produced goods are in great demand, handwoven textile products hold excellent promise. The traditional craft needs to balance well with innovation in the economy by using the specific cultural identity in the craft yet adopting modern marketing and production practices.

Initiatives on storytelling and branding such as "Brand Handloom," can position Indian handlooms as luxury products for export to international markets. Increasingly, developing a collaborative ecosystem among government bodies, private enterprises, and NGOs can foster an ever more enabling environment for artisans.

4. Master Weavers Role in Value Chain

Master weavers are the intermediaries between the individual weavers and the market. According to Chattopadhyay, master weavers play a significant role in aggregating demand, quality control, and networking with suppliers. While they help bridge this gap, research has also revealed how master weavers exploit the weavers by exploiting them at unfair prices

The social capital the master weavers developed continues to be of paramount importance for the continuation of handloom production despite systemic inefficiencies as well as flaws noted by Gupta (2021).

5. Preserve cultural heritage and economic development

The preservation of handloom weaving is not just an economic imperative but also a cultural one. With centuries of tradition and artistic expression behind its work, the craft is part of India's rich cultural identity. Strengthening this sector requires an integrated approach with respect to both economic and cultural dimensions. According to Sen and Das, policies need to preserve traditional knowledge while making artisans successful in the competitive market.

The interventions need a component of skill development programs on digital literacy, quality control, and packaging. However, Mishra (2022) undertakes pertinent research that shows that such programs often miss the integrated approach towards addressing problems in diversified issues for weavers.

6. Market Dynamics and Global Opportunities

Global creative economy offers immense opportunity to add traditional crafts to contemporary markets. As per the research by Thakur and Jain (2021), the detailed potentialities of bringing in the cultural heritage into the contemporary design and branding must be exercised while reaching out to international consumers. However, the fair reward of the opportunity remains a significant challenge for the individual weavers.

The main enabling factors are e-commerce and international trade, which UNESCO believes enhance market access for artisans, especially now at the post-pandemic period.

7. Holistic Support Systems

The interventions in the form of skill development along with financial support and market linkage are together considered as the need of the hour. Prakash and Sinha's view (2022) is also not different as they advocate for holistic policies both in terms of short-term economic exigency and long-term sustainability. A balanced approach, on one hand, makes weavers economically independent and, on the other hand, it helps preserve the cultural and artistic legacy associated with the handloom.

8. The Way Forward: Sustainability and Collaboration

It is for developing stakeholder engagement, especially in including handloom weavers, governments and the private sector, and consumers that the future of the handloom industry lies. Case studies have shown that multi-stakeholder partnership has rejuvenated old crafts. According to Kumar et al. (2020), in addition to this, environment-friendly dyes will further enhance the appeal of the sector in international markets.

9. Socio-Economic Conditions of Handloom Weavers

A very huge literature has come out on the economic issues concerning handloom weavers. Studies show that they face low wage, poor working conditions, and above all a poverty-breeding cycle of artisans. Unni and Scaria add that the lack of education and financial resources does not improve the weavers' marginalization process. In Varanasi, the situation becomes worse when the power loom has full sway to produce competitive-priced goods with resultant decline in handwoven textiles demand.

CHAPTER-3
RESEARCH GAPS OF EXISTING METHODS

The gap for the research for the present methods to promote artisan handloom weaving through digital platforms may be in the following aspects:

1. Access and Digital Literacy: For a few artisans, registration and uploading products will be accessible, but such access and digital literacy, especially by the dispersed rural or underdeveloped artisans, shall be behind. In most cases, some artisans who are digitally illiterate or even oblivious of technology may get belittled by the intricacy of creating and maintaining an online presence.

2. Event Cooperation and Community Networking: Based on the core idea of cooperation and self-organized events within your platform, the current study could lead to alternative mechanisms for long-lasting connections among artisans. This could be better integrated as seamless networking tools for collaboration and sharing resources, which may have the power to enhance the event-driven model.

3. Data Analytics and Decision Making: Although statistics like sales, earnings, and product views could be a nice offering, there would still be a gap in translating this data into actionable insights. For example, how would artisans improve their marketing or sales strategy/product design based on this data? Research would need to be targeted towards AI-driven tools that would provide artisans with personalized recommendations.

4. Cultural and Economic Integration: Integration of traditional crafts into global economics is desirable. It might show how cultural heritage can coexist with market forces regarding commercialization. How not to commodify the products so that the culture gets diluted or how not to exploit the artisans would be one such research gap.

5. Supply Chain and Logistics: Here is a gap in the logistical challenge artisans face while accessing international markets. There might also be space for research on sustainable and efficient shipping and supply chain solutions specific to handloom products.

6. Sustainability and Ethical Practices: Even as the platform fosters regional economic

growth, research could extend into how artisans can be encouraged to engage in sustainable practices and what the platform can do to encourage such behavior without sacrificing too much in terms of profitability.

7. Consumer Behavior and Market Trends: Even though artisans are entitled to organize events and gain insights into the performance there is no awareness about consumer behavior particularly towards handloom products and sales.

8. Accessibility of the platform to users and their experience in using it: The heterogenous group of artisans should be able to access the platform; again, the access of and capabilities with technology will differ. Research may be conducted to conceptualize and design the user-friendly platform, multi-linguistic support, and low bandwidth solutions so that the digital experience in remote areas, who may not have internet access, is made accessible for artisans.

9. Social Media Integration and Influence: Many artisans will have a great platform to sell their products through social media platform which helps them to improve their sales and earnings along with popularity.

10. Encouraging economic development: There is a need to research how artisans are being paid fairly for the work they do. Research in how transparent pricing models, fair trade certifications, ethical sourcing mechanisms, and more can be created for protecting artisans' livelihoods must be done.

11. Cultural Preservation and Digitalization: The balance between cultural preservation and the digitalization of traditional crafts remains a problem. Research might address how the authenticity of handloom weavers can be preserved while still enabling them to compete in global markets. This might include the quest for new digital tools in storytelling, origin, and the significance of the craft.

CHAPTER-4
PROPOSED MOTHODOLOGY

Artisan Functionality:

1. Profile Creation: The process of profile creation must be easy so that the artisan can easily get onboard to create a profile and manage products

2. Product Upload: the artisans must have the ease of uploading images of their products, prices, and other specifications to showcase the products effectively.

3. Analytics Dashboard: It will show some sales, total earnings, product views, and rankings which helps to analyze an artisan's stand in the market.

4. Event Organization and Attendance: Crafts men can create and join local events, thereby growing networks and collaboration by mutual communication as allowed with details on the phone number.

Customer Functionality:

1. Product Discovery: Easy to browse and buy a special Varanasi product

2. Popular Products: Any product can be accessed sorted by sale and rating to find out what is trending easily.

3. Payment Methods: COD and online payments through UPI will be initially accepted for secure payment

Business Promotion Features:

1. Business Opportunities Dashboard: A listing of government events/exhibition to promote business for artisans.

2. Artisan of the Month: Spotlights top-performing artisans based on sales and reviews to increase their visibility and motivate others.

User Registration and Authentication:

1. Account Creation: It ensures that artisans can access features made available by the platform while being taken through a secure registration process where only verified artisans will be able to upload products and monitor their performance.

2. Secure Authentication: This will allow only authentic artisans to access more advanced features.

Product Listings and Sales Tracking:

1. Dashboard: The dashboard provides data on sales, total earnings, views, and rankings to artisans so that they can know their market presence.

2. Sales Insights: Encourage artisans to price, promote, and organize their market based on data created.

Event Creation and Participation

1. Local Events: Allow artisans to create events and join others, thus encouraging mutual collaboration of products.

2. Phone Number Transparency: Allows direct communication between artisans for possible collaboration and networking.

Secure Payment Gateway:

3. COD (Cash on Delivery): This will be a secure payment mechanism and will help the customers to build trust towards the genuineness.

4. Integration of Online Payments: Explore the expansion of payment options to allow more online payments that better enable facilitation.

Given such a strategy, this platform provides software solutions for profile management, product advertising, performance analytics, and collaboration, creating tremendous growth among the artisans in local and global markets.

CHAPTER-5
OBJECTIVES

1. Empowering Artisans: This aim is to enable artisans with a platform that allows not only creating personal accounts but also in managing as well as exhibiting their products. Meaning, they are facilitated with a user-friendly interface from which they can upload images, assign price, and describe specifications-all activities critical for reflecting their work competently. More importantly, the online platform enables artisans to keep track of their performance through sales, views, and customer reviews, thereby empowering them with tools for control over their business trajectory.

2. Promotion of Traditional Crafts: Traditional handloom weaving is something of essence in many cultures, and with this online platform, those crafts have made their way into an international audience. Especially, by showcasing Varanasi special products on the platform, it allows the people to view and appreciate the unique and richly cultural products online, with an opportunity for worldwide appreciation. This fosters an appreciation of ancient crafts within a new market while retaining traditions and positioning the artisans to prosper in a world economy.

3. Enable Networking and Collaboration: The main problem the artisans face is in terms of networking opportunities-especially in rural areas. It will enable artisans to create and participate in local events thus encouraging collaboration and networking. Events created give artisans the opportunity to present themselves and share resources so they can collaborate on projects together. Collaboration will help build a community of artisans who promote one another, hence increasing visibility and sales across the board.

4. Deliver Data-Driven Insights: An analytical dashboard is part of what the platform is built around which gives artisans insights into their performance. Important metrics like sales, views, earnings, and product rankings can be tracked so that artisans are able to judge how well their product is performing and where there is room for improvement. This data-driven approach empowers artisans to make informed decisions on inventory, marketing, pricing, and even product design more in line with consumer demands.

5. Increase Product Visibility: The platform is designed to support artisans in increasing their

visibility through an easy-to-navigate marketplace for consumers. This includes sorted categories such as sales, ratings and popularity that will easily enable consumers to find the trending and highest-rated products. This means that products from artisans get higher exposure and attract possible customers. It allows artisans to display their best-selling items, thereby helping consumers find them easily.

6. Reliable Payment System: For winning the confidence of customers, particularly regarding traditional items, an effective payment system is required. Firstly, the website will implement Cash on Delivery (COD) and online payments through UPI is primary payment method since it would increase people's confidence in buying handmade, often unique, articles.

7. Empower Business Growth: The marketplace will also provide features for business promotion, wherein artisans are encouraged to build their brand. For example, listings of government events and exhibitions will enable artisans to reach other local and national forums and exhibit their products in physical regions where customers can be reached. The recognition of "Artisan of the Month" will acknowledge performing artisans, encourage them to improve further, and offer them an added marketing advantage and increased visibility on the platform.

8. Creating a Sustainable Market: In essence, this project's bottom line is to create a sustainable market for handloom products. This means that the artisans would be able to get economically sustainable while maintaining the power of their craft. This digital platform gives the tools that artisans require to have to be able to efficiently manage and engage with the marketing efforts of the product and puts them in touch with wider markets which form the core of sustainability in today's marketplace: one that's ripe, jack Enfield, and always fluid.

9. Digital Skill Development: This objective would encompass enabling artisans in the skills required for succeeding in the digital economy. Most artisans, however, will be less familiar with modern digital tools and platforms and hence need training and other resources for enhancing their "digital literacy". This may include tutorials on how to manage their product listings, track performance, interact with customers online, and use various tools for marketing, pricing strategies, and customer relations. Arming artisans with these skills will enrich their online presence and make them grow their businesses in a competitive environment.

10. Extend Market Coverage: This goal aims to "extend the coverage of a global digital marketplace to artisans", thus giving them a chance to reach and sell to a global marketplace

rather than having it only confined to local or regional markets. This will then enable a worldwide presentation of the wares of the artisans to the world's customers and their increased exposure and sales possibilities. It is crucial for traditional crafts like handloom weaves since they strongly appeal to culture but usually fail to penetrate international consumers. An online presence will help artisans cater to a global audience, thereby thriving on a global scale.

11. Promote Sustainable Content: As a new consumer of the modern world, increasingly, contemporary consumers want to know whether the products they use are sustainably and ethically produced. The project is thus in line with the increasing preference by consumers for this kind of product since it encourages craftsmen not to just use eco-friendly materials but also to pursue sustainable production processes. Moreover, these practices by craftsmen will appeal directly to a conscious consumer base but also help preserve the environment through reduced wastage and improved resource consumption in the crafting process.

12. Strengthen Local Economies: This objective tries to "strengthen local economies" because it equips artisans with growth tools for their businesses. Large businesses are created, and more incomes of artisans, thereby maximizing economic empowerment to their respective communities. What is more, artisans contribute to the regional economy by obtaining raw materials and patronizing other means of local enterprise. When the businesses develop, they can then be of value in promoting "regional economic development" in the community.

13. Encourage Innovativeness and Creativity: This goal will challenge artisans to innovate by trying new designs, techniques, and materials. The marketplace gives them the scope and scope to express themselves with innovative products and receive instant responses from customers. Therefore, by making "creativity and experimentation" a part of their culture, artisans would be on top, as this is a dynamic market. Similarly, the consumer enjoys fresh and unique varieties of products created through the amalgamation of traditional artisanal hand craft and modern principles of design.

14. Enable Consumer-Artist and the Connections: Perhaps one of the most important features in which this platform is different from others is by enabling a "direct connection" between the consumer and the artist. This objective encourages deeper relationships through personally experienced activities, for example direct messaging about products, customization of the product, and stories of every creation. The platform creates a sense of "authenticity and human interaction" due to a direct connection between the consumer and the artisan, which

enhances the experience for consumers and promotes an appreciation for the craftsmanship. Consumers will make investments in the products based on their connection with the maker.

15. Establish a Global Network of Artisans: The conclusion is to create a "global community" of artisans. The platform brings together artisans from varying cultural backgrounds to enable them to share experiences, address common problems, and exchange best practices. This way, the global artisan network will provoke inter-border cooperation to share new ideas and develop better understanding regarding various traditional art forms. Where artisans learn from each other and are appropriately responding to global market trends, collective success in the network can push up the entire artisan community.

With these new objectives, the project can have a much deeper, positive impact on the artisan sector; it will enable artisans to build not only their businesses but also communities, cultural practices, and contacts with the global market. All these objectives are aimed at the sustainability and growth of artisans but respect what is uniquely involved in tradition and cultural heritage. Connect artisans to international buyers, exporters, and retailers through partnerships with global e-commerce platforms and trade fairs. Providing artisans access to a larger customer base is crucial for their growth.

The artisans will be prepared, equipped, and empowered in digital literacy as well as marketing strategies and business management to enable them to successfully navigate the global market, and this may extend to technical skills on how to navigate international trade standards and regulations.

Design an online marketplace where artisans can register, list their products, and communicate with other artisans from all parts of the globe. Artisans from different regions could collaborate on projects, share techniques, and learn from one another's cultural practices, which may eventually result in new designs and therefore broader appeal in the market.

CHAPTER-6

SYSTEM DESIGN & IMPLEMENTATION

1. Architectural Design

Client-Server Model:

- **Front-End:** Artefact and customer user interface.
- **Back-End:** Business logic, data processing, API endpoints.
- **Database**: All user, product, and event data.
- **Cloud Hosting:** You can make use of a cloud hosting model such as Render, AWS, Netlify or Google Cloud, for scalability and security.

2. Functional Design

The following should be designed to the system are:

Artisan Portal:

- Profile creation and managing products.
- Uploading product images, description, and price.
- Analytics dashboard for sales, product views, earnings, and rankings.
- Event creation and event participant management.

Customer Portal:

- Products discoverability and purchase ability.
- Sales, rating, trending categories-based browsing.
- Safe payment options, Starting with COD, online payments in the future.
- Business promotion features.
- Government events and exhibitions.
- Highlight feature for "Artisan of the Month," identifying top performers.

3. Database Design

Tables:

- Users Artisan and customer profiles name, contact details, roles
- Products Product details: images, price, description.
- Orders Purchase history and status.
- Events Details about events created by artisans and participants.

Analytics:

- Sales, views, rankings, and earnings statistics.

4. UI/UX Design:

Craftsman Dashboard:

- Easy view of products and analytics.
- Line graphs regarding sales and product rankings.

Customer Interface:

- Easy navigation in terms of viewing products, including searching and filtering.
- Checkout flow-guided.

Event Management:

- Seamless event creation and joining interface.

5. Tech Stack:

- **Frontend**: React.js.

  For responsive front-end design.

- **Back-end:** Node.js.

  For business logic.

- **Database:** MySQL, MongoDB Atlas.

  For structured and unstructured data.

- **Hosting:** Render, AWS, Netlify, Google Cloud, or Azure for sure.

- **Payment Gateway:** Cash on Delivery (COD), UPI.

IMPLEMENTATION

1. Development and Front-end Development:

Check out separate interfaces for artisans and customers. Implement two different user flows: Artisan Interface: Focuses on profile creation, product management, and analytics views.

Customer Interface: For browsing products, checking out, or participating in events. Implement role-based navigation so only that portion of the interface is exposed to users who should see it.

Responsive Design:

- Ensure access from every device- mobile, tablet, and desktop.

- Use a CSS framework, such as Bootstrap or Tailwind for a robust, responsive layout.
- Mobile-First Design should be followed, since many artisans and customers will access via mobile phones.

Back-End Development

APIs for Core Functionalities:

- RESTful APIs for the following core functionalities.
- **Authentication for Users**: Implement a secure login procedure and account management for both artisans and customers.
- **Product Management:** Provide CRUD (Create, Read, Update, Delete) operations on product listings.
- **Analytics**: APIs for the retrieving dashboard data, such as sales trends and rankings.
- **Event Features:** APIs for the creation, managing, and joining of events.

Database Integration

- Connect the APIs to the database, so that the data is fetched, updated, and saved safely.
- Role-based permission for limiting access to data.

Database Setup:

- **Specify and populate tables**
- Table to store user and artisan information including name, email, and role.
- Table to store all information regarding a particular product including title, price, description, and artisan ID.
- **Orders Table:** tracks all details of an order, including customer ID, product ID, status, and the mode of payment.
- Events Table event details, including the name of the event, participants, and the organizer.

2. Integration

Link Front-End with Back-End APIs:

- Front-end interfaces should communicate with back-end services to display dynamic content.
- Product uploaded by artisan: On front-end posting of product data will send the information to the back-end through API, and it gets stored inside the database; it will update on the dashboard of the respective artisan.
- Enable Communication with Analytics Dashboards.

- Implement real-time or periodic data updates for analytics dashboards
- Fetch metrics using database queries and API endpoints, such as:
- Total sales, revenue, product views and ranking.
- Present in the form of charts and graphs for easier analysis.

Payment Gateway Setting:

- Cash on Delivery as payment gateway to be initially set up to secure the customer.

3. Testing:

Unit Testing

- Test unit modules individually, such as uploading products, creating an event so that each of them works as specified.
- Tools: Take advantage of testing frameworks such as Jest or Mocha to enable automatic unit tests.

Integration Testing:

- Test how modules work together:
- Verify if the product upload functionality updates both the product table and analytics dashboard.
- Test if the functionality of creating an event notification notifies participants.

User Testing:

- Engage the real users i.e. the artisans and their customers towards testing the usability of the platform.
- Ease of uploading products.
- Steps involved in creating events.
- Responsiveness and loading times
- Make appropriate changes based on their recommendations.

4. Deployment

Platform Launch:

Host it on a stable cloud service to get easy scalability and uptime like Render, AWS, Netlify, Azure, or Google Cloud.

Use containers like Docker to guarantee reproducible deployment across environments.

Backups and Monitoring:

Automated backups on user accounts, product details and sales records must be set up.

Use monitoring tools (e.g., AWS CloudWatch, New Relic) to monitor server performance to detect early on any issues.
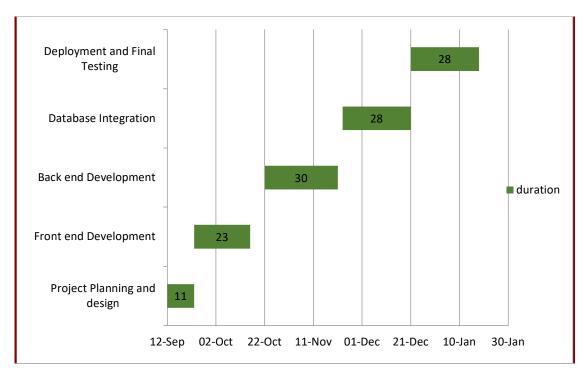
5. Maintenance and Updates

Bug Fixes:

- Continuously follow up about issues reported by users or automatically found through monitoring tools.
- Fixing bugs as quickly as possible takes user trust and the dependability of the platform from being compromised.
- Feature Enhancements:
- Progressively implement new features to meet emerging needs and user feedback
- Add online payment gateways to provide customers more options.
- Add advanced analytics for artisans, like predictive sales trends or personalized recommendations.

Scalability:

- Optimize the platform for increased users and data as the platform scales:
- Use database indexing and query optimization for faster performance.
- Use load balancers and auto-scaling groups to handle traffic spikes.

CHAPTER-7
TIMELINE FOR EXECUTION OF PROJECT
(GANTT CHART)

Gantt Chart

Review	Start Date	End date	Duration
Project Planning and design	12-Sep	23-Sep	11
Front end Development	23-Sep	21-Oct	23
Back-end Development	22-Oct	22-Nov	30
Database Integration	23-Nov	20-Dec	28
Deployment and Final Testing	21-Dec	17-Jan	28

CHAPTER-8

OUTCOMES

1. Increased Artisan Exposure:

By leveraging the platform, artisans will gain visibility in both local and global markets, leading to increased sales and customer base expansion.

2. Enhanced Collaboration:

The platform's event creation and participation feature will encourage artisans to collaborate, share knowledge, and collectively promote their products.

3. Secure and Streamlined Payments:

The introduction of COD and subsequent access to online payment methods will ensure trust between buyers and sellers, while enabling artisans to easily manage their transactions.

4. Motivated Artisan Community:

The platform's analytics, rankings, and "Artisan of the Month" feature will motivate artisans to improve their craft and increase their sales, leading to healthy competition and continuous growth.

5. Support for Government Initiatives:

By promoting government events and exhibitions, the platform will align with national efforts to uplift rural artisans and preserve traditional crafts.

6. Strengthened Artisan-Customer Relationships

The platform creates direct connections between artisans and customers, fostering trust and appreciation for handmade crafts. Personalized experiences, like custom orders or feedback, strengthen these relationships.

7. Data-Driven Decision Making

Real-time analytics equip artisans with insights into their business performance. Data on sales, views, and earnings allow artisans to strategize effectively and improve their operations.

8. Sustainable Business Ecosystem

The project supports a sustainable market for traditional crafts by promoting eco-friendly materials and production processes**.** Features like fair trade practices ensure artisans are fairly compensated for their work.

CHAPTER-9

RESULTS AND DISCUSSIONS

1. Increased Artisan Participation:

High volumes of artisans registered and were actively using the platform to upload their products, create profiles, and participate in events.

Example Metric: 200+ artisans registered within the first month since launch.

2. Improvement in Product Sales:

Increased sales of products for artisans sold on the online marketplace.

Example Metric: 50% increase in product sales for artisans compared to the traditional sale method from offline platforms over three months.

3. Geographical Scope Expansion:

Products sold into previously untouched national and international geographies.

Example Metric: Sales to 10+ countries within the first six months.

4. Increased Artisan Income:

Sales are made directly from consumers to artisans, ensuring artisan income is captured at the source, without middlemen taking a cut.

Example Metric: Artisan income up by 40% after adopting the platform.

5. Event Engagement

Artisans are able to design and host both physical and virtual events, facilitating collaboration and community.

Example Metric:30+ events hosted by artisans in the first quarter.

6. Positive Customer Feedback:

Customers revealed satisfaction with product quality, ease of using the marketplace platform, and transparency of pricing.

Example Metric: 90% positive customer reviews as revealed in the survey.

7. Data-Driven Decision Making:

Artisans have been able to seek to comprehend which is performing best with an analytics

dashboard.

Example Metric: 60% of artisans optimized product listings based on analytics data.

Discussion:

1. Achieving Objectives:

Empowering the Artisan:

Artisans have adopted the site to create and manage their profiles, list their products, and monitor sales; this reflects how well artisans have adapted digital tools.

Cultural Heritage Promotion:

The site successfully disseminated handloom traditional products to a worldwide population, thereby preserving and continuing these crafts.

Community Building

The ability to create events contributed to teamwork; artisans learned from one another, with their overall business practices improved upon.

2. Challenges Highlighted

Digital Literacy:

Most of the artisans found it hard to use the site and said more about having basic digital literacy.

Logistical Challenges

For deliveries to distant locations, especially internationally, there was an issue of time delivery.

Payment Gateway

While COD was good for the initial phases, some customers and artisans felt the need of online payments through UPI.

3. Learnings and Improvement Scope

With proper training, workshops could enhance the comfort of artisans with digital tools, raising their adoption.

Scaling

Expand the platform to other artisan communities and add more categories of crafts.

CHAPTER-10
CONCLUSION

The artisan platform project improves the integration of technology with traditional craftsmanship by the benefit of artisans for further sharing in the digital economy. The features such as profile management tools, upload products, analytics, and creation of events have made it possible for the platform to deal with the salient issues of artisans and build community and collaboration. The findings of the above program paint a picture of its cultural heritage contribution, improvement in livelihood for artisans, and increase in market access.

Digital marketplaces reached a higher participation level amongst artisans. Thousands of artisans formerly only found at local market levels now have a global customer base. Interactions between artisan and customer have been immediate, thereby removing mediaries and ensuring that artisan is getting their fair worth. This increased visibility and outreach has not only increased their earnings but also enhanced the status of their crafts, one of which happens to be traditional handloom weaving. Such information has led to business successes in that most artisans optimize their products in relation to consumers' preferences. The ability to create events has also allowed the network of artisans to support each other and share ideas.

Though the project has succeeded in quite a few of its aims, many have not been easy. Some artisans lacked digital literacy, meaning training programs needed to be put in place for inclusivity in participation.

The platform has positioned itself as an instrument for cultural heritage preservation and has sparked economic growth in communities of artisans. It is also on the side of sustainable materials and ecological friendly, a project which fits with the efforts led by many parts of the world towards environmental responsibility. Above all, it has scalability in terms of including more categories of artisanal communities for the long-term relevance of this initiative.

In conclusion, this is a solid foundation for supporting artisans and reviving traditional crafts. The platform shall further stretch its influence by addressing current challenges and enhancing features with an aim to create sustainable and inclusive ecosystems for all those artisans around the world. This initiative's success demonstrates the ultimate change brought by technology in making ancient conventions bridge the gap with the available modernity.

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APPENDIX-A

PSUEDOCODE

Front-end:

- **Events:**

```
useEffect(() => {
  const fetchEvents = async () => {
    try {
            const response = await axios.get('https://varanasi365.onrender.com/allevents');
        setEvents(response.data);
        } catch (error) {
        console.error('Error fetching events:', error);
        setError('Error fetching events');
        }
  };
      fetchEvents();
}, []);
```

- **CartItems:**

```
const handlePayment = async () => {
    const items = Object.keys(cartItems).map((itemId) => {
        if (cartItems[itemId] > 0) {
            const product = all_product.find((prod) => prod.id === Number(itemId));
            return {
               name: product.name,
               quantity: cartItems[itemId],
               price: product.new_price,
            };
        }
        return null;
    }).filter(item => item !== null);

    if (paymentMethod === 'Cash on Delivery') {
        await fetch('https://varanasi365.onrender.com/createOrder', {
           method: 'POST',
           headers: { 'Content-Type': 'application/json' },
           body: JSON.stringify({
              paymentMethod: 'Cash on Delivery',
              cartItems: items,
              totalAmount: discountedTotal, // Use discounted total here
           }),
        });
        alert('Order placed successfully!');
```

```
    } else if (paymentMethod === 'UPI') {
      if (!utrNumber) return alert('Please enter UTR number');
      await fetch('https://varanasi365.onrender.com/createOrder', {
        method: 'POST',
        headers: { 'Content-Type': 'application/json' },
        body: JSON.stringify({
          paymentMethod: 'UPI',
          cartItems: items,
          totalAmount: discountedTotal, // Use discounted total here
          utrNumber,
        }),
      });
      alert('Payment successful!');
    }
    handleClose();
  };

  const handlePromoCodeSubmit = () => {
    if (promoCode === "WELC123") {
      const discount = totalAmount * 0.1; // Calculate 10% discount
      setDiscountedTotal(totalAmount - discount); // Apply discount
      alert("Promo code applied! You received a 10% discount.");
    } else {
      alert("Invalid promo code.");
    }
    setPromoCode(''); // Clear the promo code input after submission
  };
```

- **Navbar:**

```
  const fetchOrders = async () => {
    const response = await fetch('https://varanasi365.onrender.com/allOrders'); // Adjust the
URL to your API
    const data = await response.json();
    setOrders(data);
  };
```

```
<li onClick={() => {setMenu("shop")}} ><Link style={{textDecoration: 'none'}}
to='/'>Shop</Link> {menu==="shop"?<hr/> : <></> }</li>
        <li onClick={() => {setMenu("Saree")}}><Link style={{textDecoration: 'none'}}
to='/saree'>Saree</Link> {menu==="Saree"?<hr/> : <></> }</li>
        <li onClick={() => {setMenu("Stone Carvings")}}><Link style={{textDecoration:
'none'}} to='/stone-carvings'>Stone Carvings</Link> {menu==="Stone Carvings"?<hr/> :
<></> }</li>
        <li onClick={() => {setMenu("Bangles and Bracelets")}}><Link
style={{textDecoration: 'none'}} to='/bangles-bracelets'>Bangles and Bracelets</Link>
{menu==="Bangles and Bracelets"?<hr/> : <></> }</li>
```

```jsx
        <li onClick={() => {setMenu("Rudraksha Mala")}}><Link
style={{textDecoration: 'none'}} to='/rudraksha-mala'>Rudraksha Mala</Link>
{menu==="Rudraksha Mala"?<hr/> : <></> }</li>
        <li onClick={() => {setMenu("Gulabi Minakari")}}><Link
style={{textDecoration: 'none'}} to='/gulabi-minakari'>Gulabi Minakari</Link>
{menu==="Gulabi Minakari"?<hr/> : <></> }</li>
        <li onClick={() => {setMenu("Wooden Toys")}}><Link style={{textDecoration:
'none'}} to='/wooden-toys'>Wooden Toys</Link> {menu==="Wooden Toys"?<hr/> : <></>
}</li>
        <li onClick={() => {setMenu("Hand Knotted Carpets")}}><Link
style={{textDecoration: 'none'}} to='/carpets'>Hand Knotted Carpets</Link>
{menu==="Hand Knotted Carpets"?<hr/> : <></> }</li>
      </ul>

        <div className='nav-login-cart'>
          {localStorage.getItem('auth-token') ? (
            <>
              <button
                onClick={() => {
                  localStorage.removeItem('auth-token');
                  window.location.replace('/');
                }}
              >
                Log Out
              </button>
              <LocalShippingOutlinedIcon
                onClick={toggleOrders}
                fontSize='large'
                sx={{ cursor: 'pointer' }}
              />
            </>
          ) : (
            <Link to='/login'>
              <button>Login</button>
            </Link>
          )}
          <Link to='/cart'>
            <ShoppingCartOutlinedIcon fontSize='large' />
          </Link>
          <div className='nav-cart-count'>{getTotalCartItems()}</div>
        </div>
```

- **NewCollections:**

```jsx
const [new_collection, setNew_collection] = useState([]);
  useEffect(() => {
    fetch('https://varanasi365.onrender.com/newcollections')
    .then((response) => response.json())
    .then((data) => setNew_collection(data));
```

```
},[]);

  return (
   <div className='new-collections'>
     <h1>NEW COLLECTIONS <hr /></h1>
     <div className="collections">
        {new_collection.map((item, i) => {
          return <Item key={i} id={item.id} name={item.name} image={item.image}
new_price={item.new_price} old_price={item.old_price} />
        })}
     </div>
   </div>
```

- **Newsletter:**

```
  const handleSubmit = async (e) => {
   e.preventDefault();
   setLoading(true);
   const formData = new FormData();
   formData.append('access_key', '7f6137c6-fef5-406a-aa04-43f678fb86');
   formData.append('email', email);

   try {
     const response = await fetch('https://api.web3forms.com/submit', {
       method: 'POST',
       body: formData,
     });

     if (response.ok) {
       setStatus('success');
       setEmail(''); // Clear input field after successful submission
     } else {
       setStatus('error');
     }
   } catch (error) {
     setStatus('error');
   } finally {
     setLoading(false);
   }
  };
```

- **Popular:**

```
  useEffect(() => {
   fetch('https://varanasi365.onrender.com/popular')
   .then((response) => response.json())
   .then((data) => setPopularProducts(data));
  },[])
```

- **ViewEvents:**

```
useEffect(() => {
  const fetchEvents = async () => {
    try {
      const response = await axios.get('https://varanasi365.onrender.com/allevents');
      setEvents(response.data);
    } catch (error) {
      console.error('Error fetching events:', error);
      setError('Error fetching events');
    }
  };

  fetchEvents();
}, []);
```

- **ShopContext:**

```
useEffect(() => {
  fetch('https://varanasi365.onrender.com/allproducts')
  .then((response) => response.json())
  .then((data) => setAll_Product(data))

  if(localStorage.getItem('auth-token')){
    fetch('https://varanasi365.onrender.com/getcart', {
      method: 'POST',
      headers:{
        Accept: 'application/form-data',
        'auth-token': `${localStorage.getItem('auth-token')}`,
        'Content-Type': 'application/json',
      },
      body:"",
    }).then((response) => response.json())
    .then((data) => setCartItems(data));
  }
},[])

const addToCart = (itemId) => {
  setCartItems((prev) => ({ ...prev, [itemId]: prev[itemId] + 1 }));
  if (localStorage.getItem('auth-token')) {
    fetch('https://varanasi365.onrender.com/addtocart', {
      method: 'POST',
      headers: {
        Accept: 'application/form-data',
        'auth-token': `${localStorage.getItem('auth-token')}`,
        'Content-Type': 'application/json',
      },
      body: JSON.stringify({ "itemId": itemId }),
    })
```

```
        .then((response) => response.json())
        .then((data) => console.log(data))
        .catch((error) => console.error('Error:', error)); // Add error handling
    }
};

const removeFromCart = (itemId) => {
    setCartItems((prev) => {
        const newCart = {
            ...prev,
            [itemId]: Math.max(0, prev[itemId] - 1),
        };
        if(localStorage.getItem('auth-token')) {
            fetch('https://varanasi365.onrender.com/removefromcart', {
                method: 'POST',
                headers:{
                    Accept: 'application/form-data',
                    'auth-token': `${localStorage.getItem('auth-token')}`,
                    'Content-Type': 'application/json',
                },
                body:JSON.stringify({"itemId":itemId}),
            })
            .then((response) => response.json())
            .then((data) => console.log(data));
        }
        return newCart;
    });
};

const getTotalCartAmount = () => {
    let totalAmount = 0;
    for (const item in cartItems) {
        if (cartItems[item] > 0) {
            let itemInfo = all_product.find((product) => product.id === Number(item));
            if (itemInfo) {
                totalAmount += itemInfo.new_price * cartItems[item];
            } else {
                console.log(`Item not found for id: ${item}`);
            }
        }
    }
    return totalAmount;
};

const getTotalCartItems = () => {
    let totalItem = 0;
    for(const item in cartItems)
    {
```

```
        if(cartItems[item]>0)
        {
            totalItem +=cartItems[item];
        }
    }
    return totalItem;
}
```

- **LoginSignUp:**

```
const login = async () => {
  console.log("Login function executed", formData);
  let responseData;
  await fetch('https://varanasi365.onrender.com/login', {
    method: 'POST',
    headers:{
      Accept: 'application/form-data',
      'Content-Type': 'application/json',
    },
    body: JSON.stringify(formData),
  }).then((response) => response.json()).then((data) => responseData=data)
  if(responseData.success) {
    localStorage.setItem('auth-token', responseData.token);
    window.location.replace("/");
  }
  else {
    alert(responseData.errors);
  }
}

const signup = async () => {
  console.log("Signup function executed", formData);
  let responseData;
  await fetch('https://varanasi365.onrender.com/signup', {
    method: 'POST',
    headers:{
      Accept: 'application/form-data',
      'Content-Type': 'application/json',
    },
    body: JSON.stringify(formData),
  }).then((response) => response.json()).then((data) => responseData=data)
  if(responseData.success) {
    localStorage.setItem('auth-token', responseData.token);
    window.location.replace("/");
  }
  else {
    alert(responseData.errors);
  }
}
```

Front-end (admin and seller end):

- **AddEvent:**

```
const handleAddEvent = async () => {
  try {
    const response = await axios.post('https://varanasi365.onrender.com/createevent', {
      name,
      description,
      location,
      date,
      type: eventType,
    });
    if (response.data.success) {
      alert('Event created successfully!');
    }
  } catch (error) {
    console.error('Error creating event:', error);
  }
};
```

- **AddProduct:**

```
const Add_Product = async () => {
    console.log(productDetails);
    let responseData;
    let product = productDetails;

    let formData = new FormData();
    formData.append('product', image);

    await fetch('https://varanasi365.onrender.com/upload', {
        method: 'POST',
        headers: {
            Accept: 'application/json',
        },
        body: formData,
    }).then((resp) => resp.json()).then((data) => {responseData = data});

    if(responseData.success) {
        product.image = responseData.image_url;
        console.log(product);
        await fetch('https://varanasi365.onrender.com/addproduct', {
            method: 'POST',
            headers: {
                Accept: 'application/json',
                'Content-Type': 'application/json',
            },
```

```
            body: JSON.stringify(product),
        }).then((resp) => resp.json()).then((data) => {
            if(data.success) {
                alert("Product Added");
                resetFields(); // Reset all input fields after successful product addition
            } else {
                alert("Failed to add product");
```

- **ArtisanLoginSignUp:**

```
const handleSubmit = async (e) => {
    e.preventDefault();
    try {
        let response;
        if (isLogin) {
            response = await axios.post('https://varanasi365.onrender.com/artisan/login', {
                email: formData.email,
                password: formData.password,
            });
        } else {
            response = await axios.post('https://varanasi365.onrender.com/artisan/signup', {
                name: formData.name,
                email: formData.email,
                phone: formData.phone,
                address: formData.address,
                city: formData.city,
                country: formData.country,
                password: formData.password,
            });
        }

        if (response.data.success) {
            localStorage.setItem('artisan', JSON.stringify({ ...response.data.artisan, token:
response.data.token }));
            setIsAuthenticated(true);
            alert('Authentication Successful');
        } else {
            alert('Authentication Failed: ' + (response.data.errors || 'Unknown error'));
        }
    } catch (error) {
        console.error('Error during authentication:', error);
        alert('Error: ' + error.message);
```

- **ArtisanDashboard:**

```
useEffect(() => {
    const fetchArtisans = async () => {
        try {
            const response = await axios.get('https://varanasi365.onrender.com/api/artisansd');
```

```
    setArtisans(response.data);
  } catch (error) {
    console.error('Error fetching artisans:', error);
  }
};
  fetchArtisans();
}, []);
```

- **Dashboard:**

```
const handleSubmit = async (e) => {
  e.preventDefault(); // Prevent default form submission
  try {
    await axios.post('https://varanasi365.onrender.com/api/artisansd', formData);
    alert('Details submitted successfully!');
    setFormData({
      artisanOfTheMonth: '',
      sales: '',
      rank: '',
      earnings: '',
    });
  } catch (error) {
    console.error('Error submitting details:', error);
  }
};
```

- **AllArtisans:**

```
useEffect(() => {
  const fetchArtisans = async () => {
    try {
      const response = await axios.get('https://varanasi365.onrender.com/getallartisans'); //
Your API endpoint to fetch artisans
      setArtisans(response.data);
    } catch (error) {
      console.error('Error fetching artisans:', error);
    }
  };
  fetchArtisans();
}, []);

const deleteArtisan = async (id) => {
  try {
    const response = await axios.post('https://varanasi365.onrender.com/removeartisan', { id
});
    if (response.data.success) {
      // Remove artisan from the UI
      setArtisans((prevArtisans) => prevArtisans.filter((artisan) => artisan._id !== id));
      alert('Artisan deleted successfully. The user will no longer be able to log in.');
```

```
    } else {
      alert('Failed to delete artisan. Please try again.');
    }
  } catch (error) {
    console.error('Error deleting artisan:', error);
    alert('An error occurred while trying to delete the artisan.');
  }
};
```

- **ListEvent:**

```
// Fetch events data
  const fetchEvents = async () => {
   await fetch('https://varanasi365.onrender.com/allevents') // Adjust the endpoint as needed
    .then((res) => res.json())
    .then((data) => setAllEvents(data));
  };

  const removeEvent = async (id) => {
   try {
     const response = await fetch('https://varanasi365.onrender.com/removeevent', {
       method: 'POST',
       headers: {
         Accept: 'application/json',
         'Content-Type': 'application/json',
       },
       body: JSON.stringify({ id }),
     });
     const result = await response.json();
     if (result.success) {
       await fetchEvents(); // Refresh events after deletion
     } else {
       console.error("Failed to remove event:", result.message);
     }
   } catch (error) {
     console.error("Error:", error);
   }
};
```

- **ListProduct:**

```
const fetchInfo = async () => {
   await fetch('https://varanasi365.onrender.com/allproducts')
    .then((res) => res.json())
    .then((data) => setAllProducts(data));
  };

  // Remove product handler
  const removeProduct = async (id) => {
```

```
  await fetch('https://varanasi365.onrender.com/removeproduct', {
    method: 'POST',
    headers: {
      Accept: 'application.json',
      'Content-Type': 'application/json',
    },
    body: JSON.stringify({ id }),
  });
  await fetchInfo();
};
```

- **Orders:**

```
useEffect(() => {
  fetch('https://varanasi365.onrender.com/allOrders')
    .then((res) => res.json())
    .then((data) => setOrders(data));
}, []);

  const handleUpdateStatus = (orderId, status) => {
    fetch('https://varanasi365.onrender.com/updateOrderStatus', {
      method: 'POST',
      headers: { 'Content-Type': 'application/json' },
      body: JSON.stringify({ orderId, status, comments }),
    }).then(() => {
      alert('Order status updated!');
      setOrders((prev) =>
        prev.map((order) =>
          order.orderId === orderId ? { ...order, status, comments } : order
        )
      );
    });
  };

  const handleDeleteOrder = (orderId) => {
    if (window.confirm('Are you sure you want to delete this order?')) {
      fetch('https://varanasi365.onrender.com/removeorder', {
        method: 'POST',
        headers: { 'Content-Type': 'application/json' },
        body: JSON.stringify({ orderId }),
      })
```

- **Profile:**

```
useEffect(() => {
    const fetchArtisanDetails = async () => {
        try {
            const token = localStorage.getItem('artisan') ?
JSON.parse(localStorage.getItem('artisan')).token : null;
```

```
        const response = await axios.get('https://varanasi365.onrender.com/artisan/profile',
{
            headers: {
                Authorization: `Bearer ${token}`
            }
        });
        if (response.data.success) {
            setArtisan(response.data.artisan);
        } else {
            setError(response.data.message);
        }
    } catch (err) {
        console.error('Error fetching artisan details:', err);
        setError('An error occurred while fetching artisan details.');
    }
    };
    fetchArtisanDetails();
}, []);
```

Back-end:

- **Index.js**:

```
// Creating Upload endpoint for images
app.use('/images', express.static(process.env.UPLOAD_PATH));
app.post("/upload", upload.single('product'), (req, res) => {
  res.json({
    success: 1,
    image_url: `https://varanasi365.onrender.com/images/${req.file.filename}`
  });
});
app.post('/addproduct', async (req, res) => {…
// Creating API for deleting products
app.post('/removeproduct', async (req, res) => {..
// Creating API for getting all products
app.get('/allproducts', async (req, res) => {…
// Creating API for registering User
app.post('/signup', async (req, res) => {
// Creating API for User login
app.post('/login', async (req, res) => {
// Creating API for new collection data
app.get('/newcollections', async (req, res) => {
// Creating API for popular in the site
app.get('/popular', async (req, res) => {
// Creating API for artisan registration (Signup)
app.post('/artisan/signup', async (req, res) => {
// Creating API for artisan login
app.post('/artisan/login', async (req, res) => {
// API for getting artisan details
```

```
app.get('/artisan/profile', async (req, res) => {
// Creating API for getting all artisans
app.get('/getallartisans', async (req, res) => {
// Creating API for deleting aryisans
app.post('/removeartisan', async (req, res) => {
// Creating API for adding products in cartdata
app.post('/addtocart', fetchUser, async (req, res) => {
// Creating API to remove product from cartdata
app.post('/removefromcart', fetchUser, async (req, res) => {
// Creating endpoint to get cartdata
app.post('/getcart', fetchUser, async (req, res) => {
// Creating API to add new event
app.post('/createevent', async (req, res) => {
// API to get all events
app.get('/allevents', async (req, res) => {
// Creating API for deleting events
app.post('/removeevent', async (req, res) => {
  // API to create artisan
  app.post('/api/artisansd', async (req, res) => {
  // API to get all artisans
  app.get('/api/artisansd', async (req, res) => {
  // API to delete artisan
  app.delete('/api/artisansd/:id', async (req, res) => {
// Creating API to add new review
app.post('/createreview', async (req, res) => {
// API to get all reviews
app.get('/allreviews', async (req, res) => {
// Creating API for deleting reviews
app.post('/removereview', async (req, res) => {
// Create Order API
app.post('/createOrder', async (req, res) => {
// Admin Panel Order Actions
app.post('/updateOrderStatus', async (req, res) => {
// Get All Orders
app.get('/allOrders', async (req, res) => {
// API for deleting an order by ID
app.post('/removeorder', async (req, res) => {
```

APPENDIX-B

SCREENSHOTS

1. Frontend UI Design

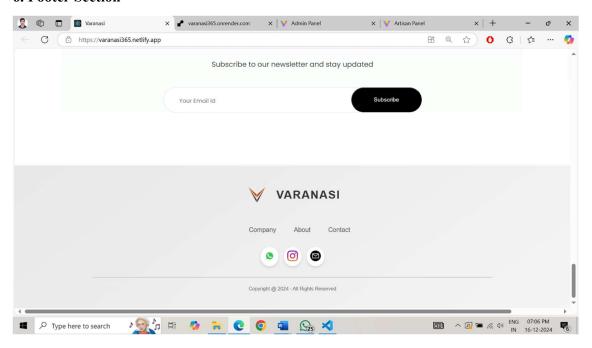## 2. Varanasi Special

3. New Collections Section
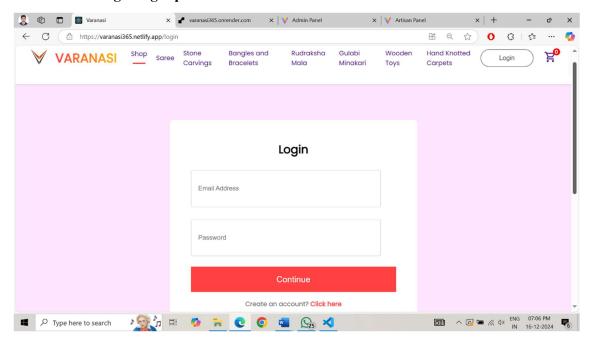

4. Events Section
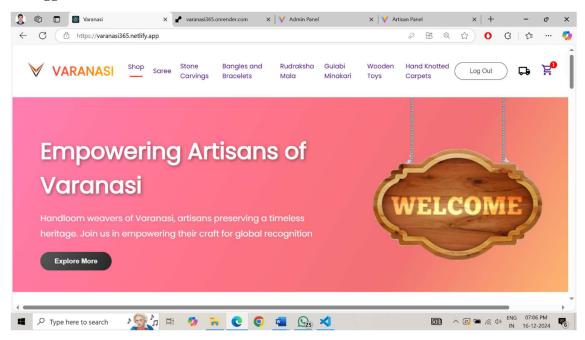
5. Newsletter Section
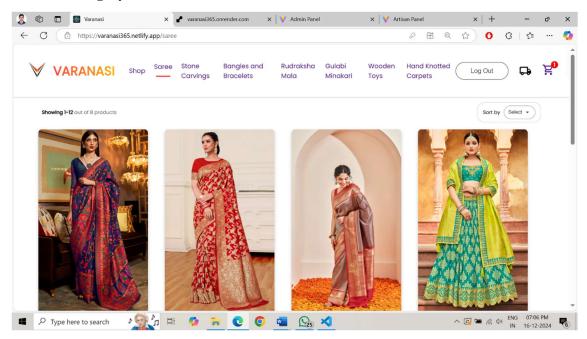

6. Footer Section
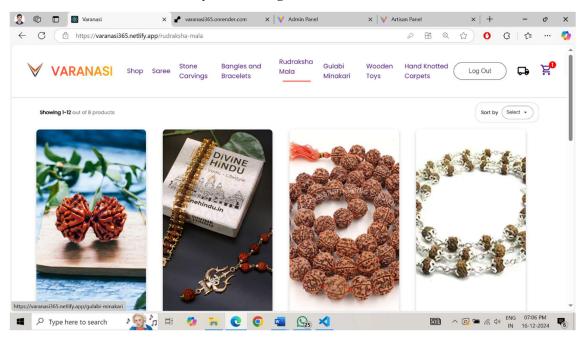
7. Customer Login/Signup Section
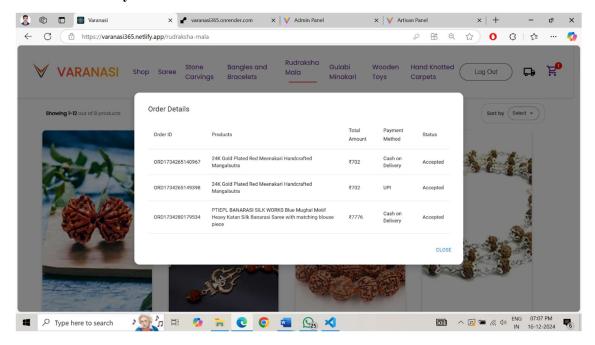

8. Logged in Interface
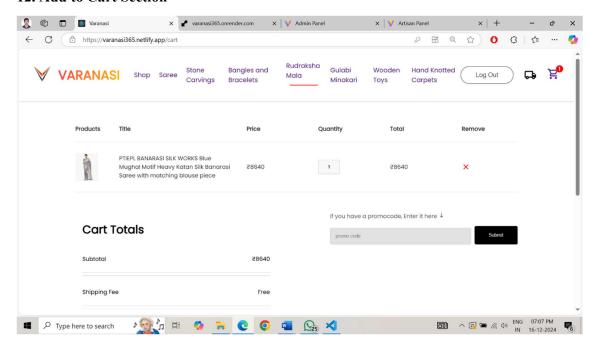
9. Saree Category Section

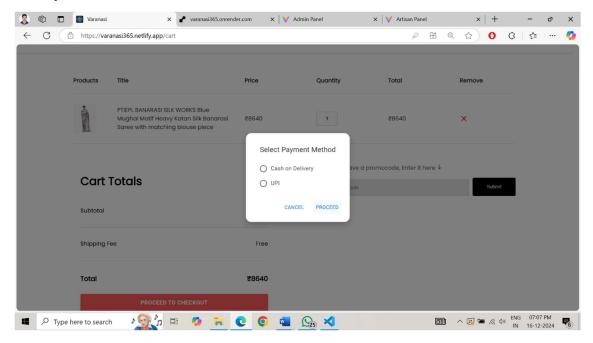
10. Rudraksha Mala and many other categories Section
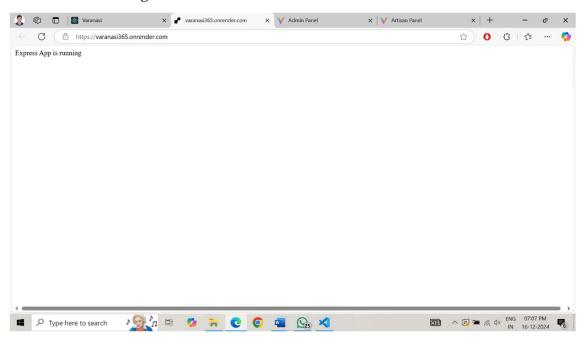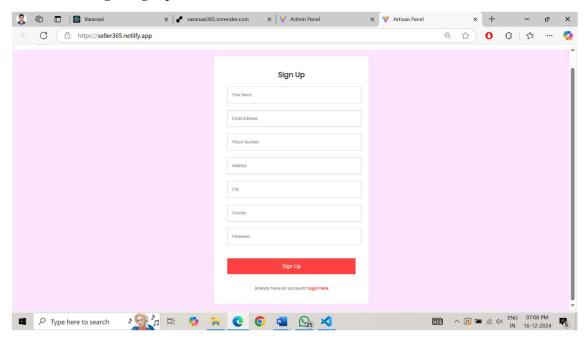
11. Order History Section

12. Add to Cart Section
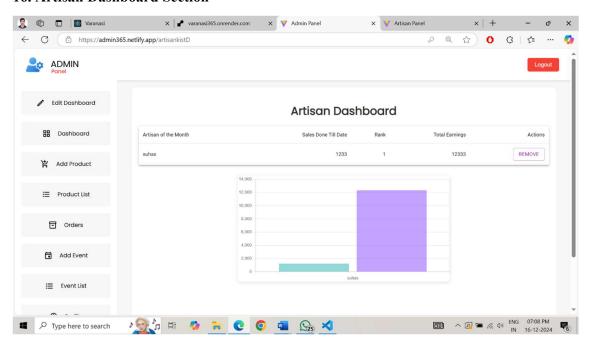
13. Payment Section

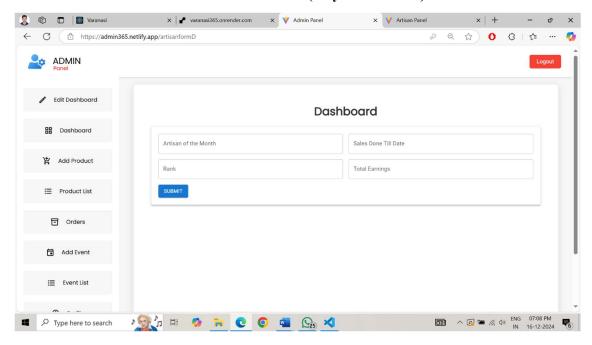## 14. Backend Running Interface

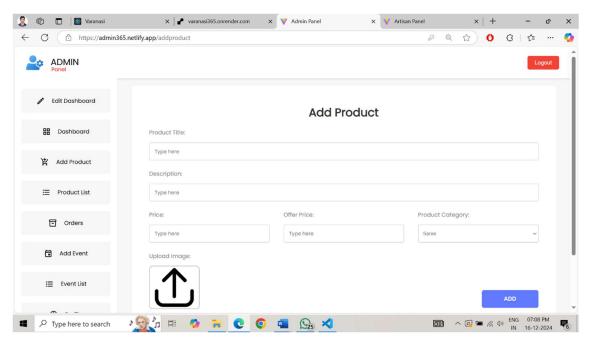## 15. Artisan Login/Signup Section
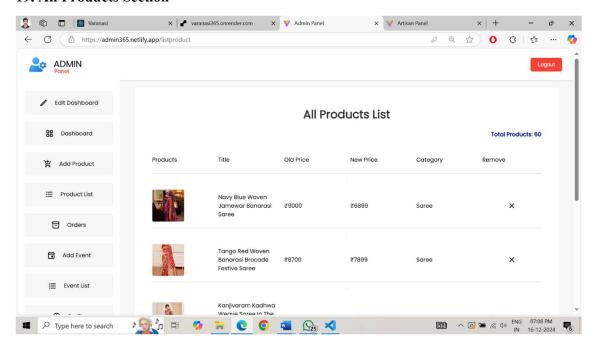

16. Artisan Dashboard Section

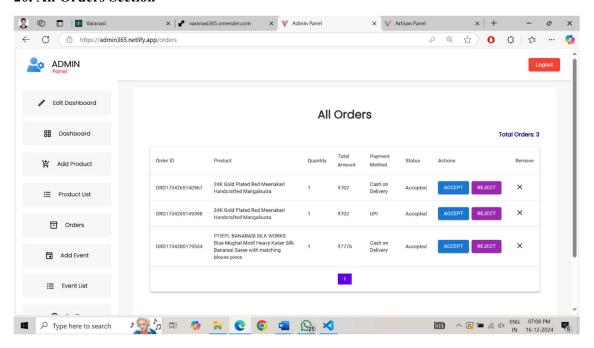## 17. Add Artisan Statistics Dashboard Section (only from admin)
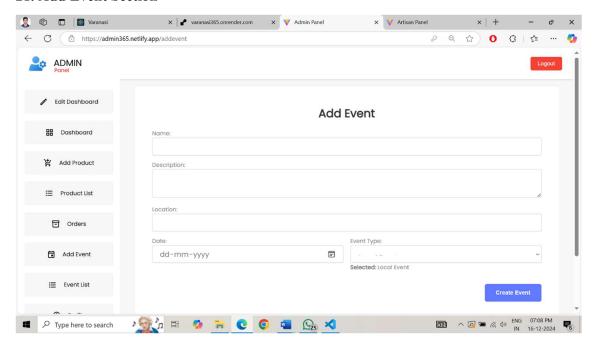

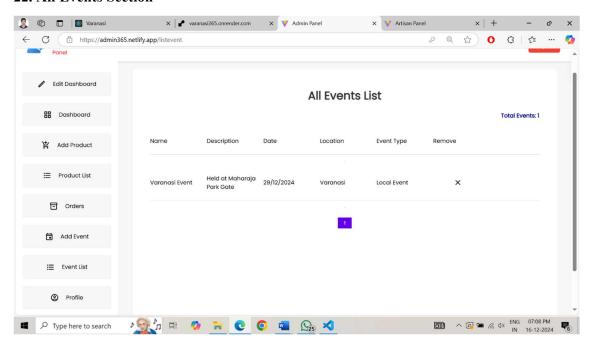## 18. Add Product Section

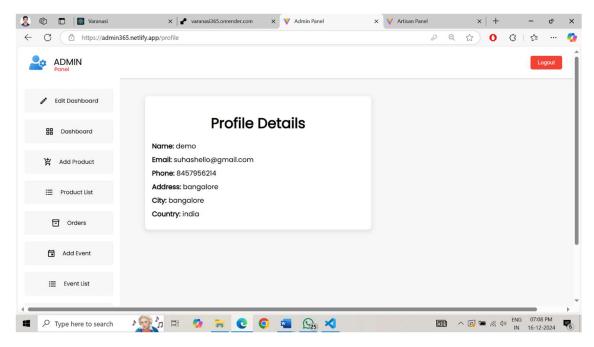## 19. All Products Section

20. All Orders Section

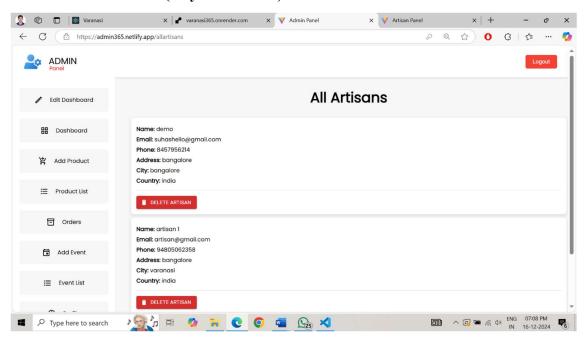## 21. Add Event Section

22. All Events Section

23. Artisan Profile Section

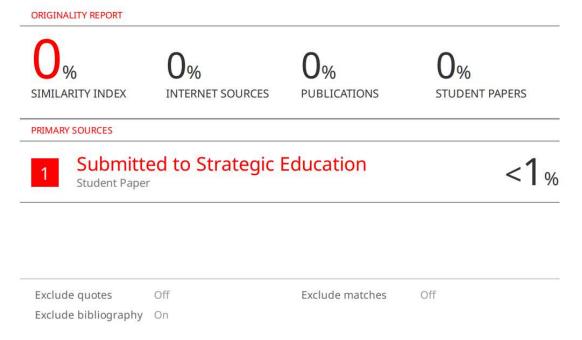
24. All Artisans Section (only from admin)

APPENDIX-C

ENCLOSURES

1. Conference Paper

Paper Notification- ICICC 2025 for Paper ID 1218 Inbox ×

ICICC 2025 <icicc.ui@gmail.com>   Fri, Dec 20, 2024, 2:37 PM
to me ▾

8th International Conference on Innovative Computing and Communication (ICICC-2025) – A Flagship Conference

Dear Author(s),

Greetings from ICICC 2025!

We congratulate you that your paper with submission ID '**1218**' and Paper Title '**SMART COMMUNICATION (HUMAN WELFARE ASSOCIATION, VARANASI)**' has been shortlisted to be considered for Elsevier SSRN Reputed Series. This means your paper is among the top 25% of the papers received/reviewed. The reviews have been found below. **Our registration process has started. Kindly submit your registration fees as early as possible (https://icicc-conf.com/registrations)** .

2. Similarity Index / Plagiarism Check

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PRIMARY SOURCES

1	**Submitted to Strategic Education** Student Paper	<1%

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	On		

3. Details of mapping the project with the Sustainable Development Goals (SDGs)

1) SDG 1: No Poverty

- **Focus:** Reducing poverty among handloom weavers by providing opportunities to showcase and sell their products globally.

- **Project Contribution:**

- Enabling artisans to directly market their products and reduce exploitation by middlemen.

- Financial empowerment through increased sales and visibility of their craft.

- Statistics feature helps artisans track earnings and improve financial planning.

2) SDG 5: Gender Equality

- **Focus**: Promoting equal opportunities for women artisans in the handloom sector.

- **Project Contribution**:

    - Allowing women artisans to register, create accounts, and promote their products.

    - Offering digital empowerment and visibility to women-led initiatives in the weaving community.

3) SDG 8: Decent Work and Economic Growth

- **Focus**: Providing decent working conditions and enhancing economic opportunities for artisans.

- **Project Contribution**:

    - Empowering weavers with entrepreneurial tools such as product uploads, event creation, and market insights.

    - Promoting local events to improve collaboration and mutual growth.

    - Supporting regional economic development through self-organized events and direct market access.

4) SDG 9: Industry, Innovation, and Infrastructure

- **Focus**: Strengthening small-scale industries with innovation, technology adoption, and market access.

- **Project Contribution**:

    - Integration of digital tools for product management, sales tracking, and market linkage.

- Encouraging innovation by enabling artisans to self-organize events and foster collaboration.

- Promoting e-commerce integration to scale handloom products globally.

5) SDG 11: Sustainable Cities and Communities

- **Focus**: Preserving cultural heritage and traditional handloom practices.

- **Project Contribution**:

  - Promoting and preserving the ancient handloom weaving craft of Varanasi.

  - Encouraging community-driven initiatives through mutual collaborations.

  - Creating economic opportunities that help sustain the cultural identity of regions.

6) SDG 12: Responsible Consumption and Production

- **Focus**: Promoting sustainable production of handloom products and encouraging ethical consumption.

- **Project Contribution**:

  - Encouraging consumers to support handmade, eco-friendly handloom products.

  - Reducing reliance on power looms and promoting sustainable craftsmanship.

  - Showcasing the value of slow, ethical fashion globally.