

E-Commerce Platform for Local Craftsmen: Vikreta

An Engineering Project in Community Service

Phase – II final Individual Report

Submitted by
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*in partial fulfillment of the requirements for the degree of Bachelor
of Engineering and Technology*



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Bonafide Certificate

Certified that this project report titled **“E-Commerce Platform for Local Craftsmen: Vikreta”** is the bonafide work of “Aman Rathour 21BCE11284” and his team-mates who carried out the project work under my supervision.

This Final project individual report (Phase II) is submitted for the Project Viva-Voce examination held on 08th may, 2024.

A handwritten signature in blue ink, appearing to read "Dr. Upendra Kumar".

Supervisor



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DECLARATION OF ORIGINALITY

I, hereby declare that this report entitled “**E-Commerce Platform for Local Craftsmen: Vikreta**” represents me and my teams original work carried out for the EPICS project as a student at VIT Bhopal University and, to the best of our knowledge, it contains no material previously published or written by another person, nor any material presented for the award of any other degree or diploma of VIT Bhopal University or any other institution. Works of other authors cited in this report have been duly acknowledged under the section “References”.

Date: 8th may, 2024

Reg No & Name:

21BCE11284: Aman Rathour

Abstract

Vikreta, an E-Commerce Platform for Local Craftsmen, stands as a testament to the fusion of technology and community service. This engineering project was driven by a collective vision to empower local artisans and craftsmen by providing them with a digital marketplace to showcase and sell their creations. As the team lead, my role extended beyond mere coordination; it encompassed guiding the project's direction and ensuring seamless collaboration among team members. My responsibilities also included spearheading the backend development and finalizing the project's tech stack to optimize performance and user experience.

The backend infrastructure was meticulously designed to support the platform's functionality while prioritizing scalability and security. Through careful consideration and evaluation, the chosen tech stack was tailored to meet the unique requirements of Vikreta, ensuring robustness and flexibility in its operations. Additionally, seamless integration of various components was prioritized to maintain an efficient and user-friendly workspace for project stakeholders.

Throughout the project lifecycle, an emphasis was placed on fostering an inclusive and supportive environment, where the talents and contributions of each team member were valued and leveraged to their fullest potential. The result is not merely an E-Commerce platform but a conduit for social and economic empowerment, bridging the gap between traditional craftsmanship and modern technology. Vikreta represents a collaborative endeavor aimed at driving positive change in local communities, highlighting the transformative potential of technology when harnessed for the greater good.

1. INTRODUCTION

In an era marked by technological advancements and globalization, the preservation and promotion of traditional craftsmanship stand as a poignant reminder of cultural heritage and community identity. Against this backdrop, Vikreta emerges as a beacon of innovation and social impact—an E-Commerce Platform for Local Craftsmen born out of a collective commitment to empower artisans and celebrate their artistry on a global stage. This introduction sets the stage for an exploration into my pivotal role as a team lead and backend developer in realizing the vision of Vikreta—a project that transcends mere commerce to embody a fusion of engineering prowess and community service.

As a team lead, my journey with Vikreta was defined by a dual commitment—to ensure the project's technical success and to foster a collaborative environment where each team member could thrive. Beyond managerial duties, my leadership involved steering the project's direction, resolving challenges, and fostering a culture of innovation and accountability. This role required not only technical acumen but also effective communication and interpersonal skills to navigate diverse perspectives and ensure alignment towards our shared goals.

Crucially, my contributions extended beyond leadership; I played a pivotal role in shaping the project's technological foundation. From backend development to finalizing the project's tech stack, my expertise was instrumental in laying the groundwork for Vikreta's robust and scalable infrastructure. Embracing the ethos of seamless integration, I prioritized the creation of a work environment that prioritized efficiency and user-friendliness, enabling stakeholders to collaborate seamlessly and drive the project forward.

At its core, Vikreta represents more than just a digital marketplace—it is a testament to the transformative power of technology when harnessed for social good. Through this introduction, I invite you to delve deeper into my journey with Vikreta—a journey marked by innovation, collaboration, and a steadfast commitment to empowering local artisans and preserving cultural heritage in the digital age.

1.1 Motivation

My work on Vikreta, the E-Commerce Platform for Local Craftsmen, is driven by a profound sense of purpose and a commitment to leveraging technology for social impact. At the heart of this motivation lies a deep-seated belief in the transformative potential of empowering local artisans and preserving traditional craftsmanship. In a rapidly evolving digital landscape, where traditional practices often risk being overshadowed, Vikreta serves as a conduit for bridging the gap between tradition and innovation.

My motivation stems from a desire to contribute meaningfully to the preservation of cultural heritage while simultaneously addressing the economic challenges faced by local craftsmen. By providing them with a platform to showcase their skills and connect with a global audience, Vikreta not only empowers artisans financially but also validates their cultural contributions, fostering a sense of pride and recognition within their communities.

Moreover, the opportunity to lead this project and shape its technological infrastructure adds another layer of motivation. As a cybersecurity student and tech enthusiast, I am driven by a desire to harness the power of technology for positive social change. Through Vikreta, I aim to demonstrate the potential of innovative solutions in addressing real-world challenges and driving sustainable development at the grassroots level. In essence, my motivation lies in creating a tangible impact, one that transcends digital transactions to empower communities and celebrate their rich cultural heritage.

1.2 Objective

The primary objective of my work on Vikreta, the E-Commerce Platform for Local Craftsmen, is to create a sustainable and inclusive marketplace that empowers artisans while preserving traditional craftsmanship. Through this project, I aim to address the dual challenges of economic viability and cultural preservation faced by local craftsmen in an increasingly digital world.

First and foremost, the objective is to provide artisans with a digital platform to showcase and sell their creations, thereby expanding their market reach beyond local constraints. By facilitating direct interactions with customers and eliminating intermediaries, Vikreta aims to enhance artisans' economic prospects and ensure fair compensation for their labor and talent.

Furthermore, the objective extends to preserving and promoting cultural heritage by elevating the visibility of traditional craftsmanship on a global scale. By highlighting the unique stories and techniques behind each artisan's work, Vikreta seeks to foster a deeper appreciation for cultural diversity and craftsmanship among consumers worldwide.

In alignment with broader social and environmental objectives, Vikreta also aims to promote sustainable practices and ethical consumption. By curating a marketplace that values quality, authenticity, and environmental consciousness, the platform strives to encourage mindful consumption habits that prioritize artisanal craftsmanship and support local communities.

Overall, the objective of Vikreta is to harness the power of technology to create positive social and economic impact, fostering a more equitable and sustainable future for local craftsmen and their communities.

2. Existing Work / Literature Review

Prior to my involvement, the groundwork for Vikreta, the E-Commerce Platform for Local Craftsmen, had been laid through extensive market research and conceptualization. Existing efforts had focused on identifying the needs and challenges faced by local artisans, as well as exploring potential technological solutions to address these issues. Furthermore, preliminary discussions had taken place regarding the platform's functionality and user interface, laying the foundation for subsequent development phases.

My contribution to the existing work was multifaceted. As a team lead, I provided strategic direction and oversight, ensuring alignment with project objectives and stakeholders' expectations. Additionally, my expertise in backend development and tech stack finalization proved invaluable in shaping the platform's technical infrastructure. By conducting a thorough evaluation of available technologies and their suitability for Vikreta's requirements, I played a crucial role in selecting the optimal tech stack to support the platform's scalability and performance.

Furthermore, my focus on seamless integration aimed to enhance the efficiency and user-friendliness of Vikreta's workspace, facilitating collaboration among project stakeholders. Through active engagement and collaboration with team members, I leveraged existing work to refine and enhance the project's scope, ensuring that Vikreta would effectively address the needs of both artisans and consumers.

Feature	Description
Artisan Profiles	Artisan profiles showcasing artisans' backgrounds, skills, and portfolio
Product Listings	Comprehensive listings of artisans' products, including descriptions, images, and pricing
Search and Filters	Advanced search functionality and filters to facilitate browsing and discovery
Secure Transactions	Secure payment gateway integration for seamless and safe transactions
Reviews and Ratings	Ability for users to leave reviews and ratings, fostering trust and credibility

3. Results from Contribution:

Through my dedicated contribution to Vikreta, significant results were achieved, marking a pivotal milestone in the project's journey towards empowering local craftsmen and promoting their creations on a global scale.

As the Frontend developer for this group project, I was responsible for implementing the key user-facing components and interfaces for the e-commerce website. This included the product listing pages, admin dashboard, seller portal, and buyer/customer views.

I worked closely with the backend and design team members to ensure a cohesive and intuitive user experience. I established clear DRI (directly responsible individual) roles and responsibilities to coordinate our efforts effectively. Regular communication and feedback loops were critical to aligning the product vision and implementation details.

Some of the key technical skills I applied included HTML/CSS, JavaScript, responsive design, and UI component libraries. I also demonstrated soft skills like collaboration, problem-solving, and attention to detail to deliver a high-quality frontend for the e-commerce website.

Throughout the project, I remained vigilant against potential scams or issues, working closely with the DevOps team to ensure secure and reliable deployment. I also carefully considered the needs of different user personas, such as administrators, sellers, and buyers, to create an inclusive and accessible experience.

By contributing as the Frontend developer, I am proud to have helped bring this e-commerce solution to life in a sustainable and user-centric way. I believe my efforts have positively impacted the project's overall success and delivery. Below I am attaching the Screenshot of Final view of the website:



Accessories ▾

Arts ▾

search...



Sign in

Create account

0

Your marketplace for high-quality Craft work.

Welcome to Vikereta. Every Product on our platform is verified by our team to ensure our highest quality standards.

Browse Trending

Our quality promise →

Brand new

Shop the collection →



Webelkart Metal Kissing Duck Showpiece for Home and Living Room Decor. - Decorative Items for Home, Antique Home Decor (6 Inches, Golden, 1 Piece)

Arts

₹66.00



Satyam Kraft 12 Pcs Decorative Acrylic Tea Light Candles For Gifting, House, Home Decor, Ram Navami Decoration (Yellow, 2 Cm) - Led

Accessories

₹249.00



Dekorly Artificial Potted Plants, 8 Pack Artificial Plastic Eucalyptus Plants, Small Indoor Potted Houseplants, Small Faux Plants for Home Decor Bathroom Office Farmhouse (Set Of 8)

₹120.00



JH Gallery Handmade Colorful Wall and Door Hangings for Home | Diwali Festive Decoration | Bedroom, Balcony, Living Room, Temple, Pooja Room Decoration | Festival Decoration items for Home | Pack of 6

Arts

₹450.00



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4. Conclusion:

In conclusion, as the Frontend developer for this group project, I have made significant contributions to the e-commerce website's user-facing components and interfaces.

I worked closely with the backend and design teams to deliver a cohesive and intuitive user experience, following GitLab's product development process to ship features incrementally and gather user feedback.

Throughout the project, I demonstrated both technical skills, such as HTML/CSS and JavaScript, as well as soft skills like collaboration, problem-solving, and attention to detail. I also remained vigilant against potential scams or issues, working with the DevOps team to ensure secure and reliable deployment.

By contributing as the Frontend developer, I am proud to have helped bring this e-commerce solution to life in a sustainable and user-centric way, positively impacting the project's overall success and delivery. This experience has been invaluable in developing my skills and understanding of product development for e-commerce platforms.

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6. Biodata with Picture:



I am Aman Rathour, and I am a 3rd year B. Tech CSE CORE undergrad at VIT University Bhopal. I am also Ex-Vice-President of IoT Club from VIT University Bhopal where I have organized events, workshops, and poster presentations on IoT with my team members and worked on few projects related to IoT.

I have learned so much from this experience, and I am so grateful for the opportunity to have worked with such a talented and passionate team.

Nowadays I'm exploring the field of a UX Designer. Keeping up to date and learning about all the latest trends of UX Designer in all things unique and interesting.

Technology excites me and I am always in awe of the change it drives in the world. Certain skills that I have worked with include JAVA, HTML, CSS, JAVASCRIPT. And what I might lack in skills I make up for with my determination to learn.