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Title: Point of Sale Platform for Mehvi Lady

Abstract:

In my capstone project, I assumed the role of a software engineer tasked with developing the backend for a Point of Sale (POS) platform catering to an online cosmetics business in Pakistan. The team consisted of three people in total, the rest also working on their capstone and independent study credits respectively. The project aimed to create a tailored POS system to streamline operations within the business.

As the primary point of contact between the development team and the client, effective communication was crucial in ensuring that the project aligned with the client's vision. My responsibilities revolved around crafting the backend infrastructure that formed the heart of the POS platform. This involved designing and implementing functionalities to facilitate smooth transaction processing, inventory management, and order tracking for which I used Spring Boot, Spring Web, and JPA technologies. The platform aimed to simplify inventory control, sales monitoring, and customer engagement, ultimately enhancing overall business efficiency. The outcome of my efforts was a successful backend framework that underpinned the POS platform. This backend provided secure transaction handling, precise data management, and reliable inventory control.

By delivering a solid foundation, the platform ensured a seamless user experience for both the business and its customers. This project's significance lies in its potential to revolutionize business operations, optimize processes, and enhance customer interactions through technology.

Throughout this journey, I navigated the intricacies of backend development, solving challenges related to data processing, security, and integration with the front end. Collaborating closely with my team and engaging in productive interactions with the client, I acquired a holistic understanding of translating business requirements into technical solutions. Guided by Professor Kochanski, I honed my software engineering skills and grasped the importance of aligning technological solutions with end-user needs. This experience equipped me with insights into bridging technical execution and client expectations, resulting in a tailored solution poised to reshape the cosmetics business landscape.