**Supermarket Selfcheckout Android Application**

**Problem Statement:**

* Grocery shopping has recently become more challenging for customers. While most shoppers enter supermarkets with the intention of minimizing the time spent for selecting products, they often find themselves spending more time at the checkout counter**. This problem has several contributing factors, most notably the presence of large crowds coupled with a shortage of available checkout counters**. Special occasions, such as the onset of a new week or month, witness a surge in customers purchasing a month's worth of household essentials, causing severe bottlenecks at the checkout counters. The primary flaw in the current system lies in the necessity to individually scan each product at checkout, a process that significantly elongates wait times. This bottleneck represents a fundamental challenge faced by modern supermarkets, negatively affecting the overall shopping experience. Nevertheless, a practical solution to this problem lies in the implementation of self-checkout facilities. These automated systems empower customers to independently scan and pay for their items, effectively streamlining the payment process, reducing checkout times, and ultimately enhancing the shopping experience. By embracing self-checkout options, supermarkets can offer a more efficient and satisfying shopping experience, effectively mitigating the challenges inherent in the current checkout system.

**Proposed Solution :**

* Our proposed solution effectively addresses customer concerns through the development of an Android application catering to both supermarket managers and customers. When new stock arrives, managers can seamlessly integrate products into the database by scanning their barcodes, including essential details like product name, price, net quantity, and availability. This application provides managers with the flexibility to add, remove, or modify products, ensuring up-to-date inventory management. Customers access the Self-Checkout Android Application with ease, logging in using their credentials. To streamline shopping, they can scan product barcodes with their mobile devices, receiving comprehensive information about price and net quantity before adding items to their cart. Cart management is straightforward, allowing customers to adjust quantities and view a detailed list of purchased products, along with the total amount due. The application offers a hassle-free product deletion process, where customers can navigate to the homepage and scan barcodes to remove items. Payment convenience is paramount, with the Unified Payments Interface (UPI) facilitating secure digital transactions. After successful payment, supermarket staff verify transactions, ensuring a smooth checkout. Upon completion, customers can confidently exit the supermarket, concluding their shopping **experience. This comprehensive solution enhances efficiency, customer satisfaction, and overall supermarket operations.**

**TECHNOLOGIES USED: JAVA,XML,FIREBASE.**