ABSTRACT :

Printing services in educational institutions and public centers often face inefficiencies, such as long queues, misplaced or mixed-up prints, incorrect copies, and resource wastage. Traditionally, staff at Xerox centers manually download PDFs and print them, creating bottlenecks and opportunities for error. These issues lead to frustration for customers and increased operational overhead for Xerox centers.To address these challenges, we propose an automated printing system that eliminates manual processing by allowing users to log in, upload documents, and specify printing preferences (copies, duplex, color/BW) through a web portal or WhatsApp integration. The request is directly sent to a local server-based queuing mechanism on the Xerox shop's PC, which dynamically assigns print jobs to available printers without a middleman.At the Xerox center, a desktop interface continuously monitors printer availability and automates print execution, reducing delays and human errors. Additionally, users can opt for stapling or punching, with printed guide dots facilitating manual finishing. To enhance accessibility in India, our system integrates WhatsApp as a user-friendly medium for submitting print jobs, ensuring easy handling while maintaining privacy and security.Furthermore, to prevent network-related interruptions in crowded areas like colleges during file uploads, users can gain temporary access to a private WiFi network by scanning a QR code, providing reliable internet connectivity for the duration of their transaction.

Architecture Diagram :