Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur
Department of Information Technology
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Title of the Project

E-Post Office

ABSTRACT

This project is aimed at developing a **web-based E-Post Office system** that streamlines and manages core postal operations and customer services. The system offers digital management of customer profiles, postal transactions, tracking services, and administrative controls, ensuring that postal services are faster, more transparent, and user-friendly. The system is built using **React.js** (frontend), **Node.js** (backend), **MongoDB** (NoSQL database), and **CSS** (styling), ensuring a modern, scalable, and responsive application architecture.

Functional components of the project

This is a system used by **Post Offices** or **Courier Service Centers** that want to digitize their services and operations. There are three main roles in this system: an **administrator**, a **postmaster (staff)**, and a **customer**.

- An **administrator** logs into the system and can manage staff accounts, update service details, and oversee overall operations.
- **Customers** register on the system, provide their personal details (such as name, address, and contact info), and can book postal services like parcel dispatch, letter delivery, or money orders. All details are saved securely in the database.
- After booking a service, the customer receives a **tracking number** and can monitor the delivery status in real time. The system ensures that customers receive updates through automated email or SMS notifications regarding dispatch, transit, or delivery.

Meanwhile, postmasters (staff) can log in, view assigned tasks, update the status of deliveries, and manage office-level operations.

The main highlights of the project are:

A. **Online postal booking system**, where customers can request services and pay online without visiting the post office.
B. **Real-time tracking and status updates** for parcels and letters, keeping customers informed at every stage.
C. **Automated communication system** that generates emails or SMS alerts when a delivery is dispatched, delayed, or completed.
D. **Role-based validations** ensuring, for example, that customers cannot book duplicate services, and only authorized staff can update delivery statuses.

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