



PARSHWANATH CHARITABLE TRUST'S

A.P. SHAH INSTITUTE OF TECHNOLOGY

**Department of Computer Science and Engineering
Data Science**



Supermarket management System

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**Project Guide
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1. Introduction:

Problem Identified:

- Time-consuming and labor-intensive, as staff must visit customers monthly for bill distribution and payment collection.
- Maintenance of bills is done manually through hard copies, leading to a tedious and lengthy process.

Solution Proposed:

- This project system eliminates the need to maintain paper electricity bills as all electricity bill records are managed electronically.
- The administrator doesn't have to do the hard work as this system easily stores users manually.

2. Objectives:

- Ensure real-time operations to reduce manual processes and improve efficiency
- To provide customers with a bill summarizing their purchased items and the total amount.
- Create a user-friendly interface for ease of use by staff and customers.
- Providing a search option to minimize the effort of searching through a long list of products.

4. Feature / Functionality:

- Inventory management.
- Customer management.
- User authentication.
- Searching and Filtering.
- Sales and Billing.

5. Outcome of Project:

- The system can calculate total bills accurately based on item prices and quantities
- The system centralizes product and sales data, making it easy to access and manage.
- The system streamlines inventory updates by recording stock levels after each transaction.
- Proper authentication mechanisms can be implemented for user access control.

6. Technology Stack:

- **Front-End:-** Java Swing is used for creating the user interface.
- **Back-End:-** MySQL 8.0 CE is used for database management.
- **Java:** The core programming language used to handle business logic, data processing, and managing user requests.
- **JDBC (Java Database Connectivity):** To connect and interact with the SQL database for operations like storing and retrieving billing data.

The background features abstract, overlapping geometric shapes in various shades of blue, ranging from light sky blue to deep navy blue. These shapes are primarily located on the right side of the frame, creating a modern, layered effect. The rest of the background is a solid, very light blue-grey.

Thank You!