Case Study
The NextGen POS System

The Case Study

- The text uses the development of a Point of Sale (POS) System as a case study to demonstrate object oriented software development.

- A POS system is a replacement for a cash register that adds many computer services to the traditional cash register. Most retail stores now use POS systems.

Architectural Layers

- User Interface
  - *(minor topic)*
- Application Logic and Domain Objects
  - Sale and Payment *(main topics)*
- Technical Services
  - Log and Persistence *(secondary topics)*

Iterative Learning/Development

- The text is organized in three iterations.
- Each iteration will deliver a product to the customer, with subsequent iterations adding features to the earlier ones.
- Each iteration will do analysis and design only on the features for the current release of the software.

ssn

FEATURES

❑ **Efficient:** With the aid of common barcode scanners and touch screen interfaces, you can process your sales quickly and efficiently.

❑ **Easy to learn:** No expensive training for staff as easy to learn.

ssn

FEATURES

❑ **Easy to use:** Requires minimum keystrokes and the mouse is never required (but you can use it if you want).

❑ **Flexible:** Handles any combination of discounts, taxes, returns, credits and sales specials in one easy transaction.

ssn

FEATURES

❑ **Automatic:** Applies automatic discounts or preferred price levels to special customers.

❑ **Accommodating:** If something is not in stock -send a customer order to the purchase order system

SSN

FEATURES

❑ **Secure:** Can view and automatically calculated profit margins and stock counts.
❑ **Customer-Oriented:** Let you know to rewards your best customers with a bonus points program.

❑ **Versatile:** Prints sales slips, price quotes and account invoices.
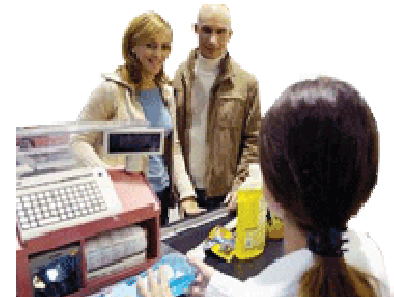
ssn

FEATURES

❑ **Modern:** Works with all the modern retail devices including barcode, customer display, cash drawer, barcoded scales and runs on any network.

❑ **Email:** The email send to the regular customer regarding new scheme for new product.

ssn

Benefits

❑ Save your time, increase accuracy and provide greater control over what happens at the sales counter.

❑ It will enhance operation, providing with increased speed, accuracy and control of inventory - all of which lead to increased profits and more time to focus on growing business.

ssn

Benefits

❑   The POS screen is designed to be fast and easy to use without leaving any product. Everything from suspending sales to creating price quotes - it's all available in this system.

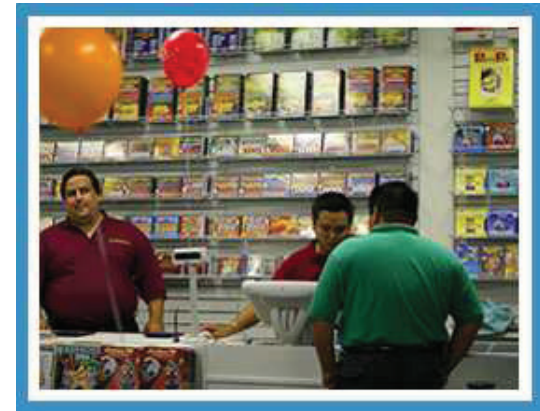❑   The different schemes on the products can be defined and be known to the customer by messaging facility.

Messages
New Products
New Schemes
Special Offers

Applicable areas

SHOPPING MALLS

PROVISION STORES

RETAIL STORES

ssn

Features of NextGen POS

A POS System is a computerized application used to record sales and handle payments. It is typically used in retail store. It includes hardware components such as computer and barcode scanner. A software runs on the system. It interfaces to various service applications such as third party tax calculator and inventory control. These systems must be relatively fault-tolerant that is even if remote services are temporarily unavailable, they must still be capable of capturing sales and handle cash payment.

Problem Statement

A customer arrives at a checkout with items to purchase. The cashier uses the POS system to record each purchased item. System provides running total and line-item details. The customer enters payment info, system validates and records. System updates inventory, customer receives receipt from the system and leaves with the items purchased.