



# **Computer and Information Sciences**

**23 - 27**

**6<sup>th</sup> Semester**

## **Internet Application Development**

**Lab 03**

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# Demonstration Page for each Task:

## 1. Home Page:

The Home Page serves as the main entry point of the NIKE Management System. It displays a welcome banner and a navigation menu linking to all functional modules: Customer Registration, Product Search, Place Order, Admin Panel, Payment Processing, and the Help Page.

[Home](#) [Registration](#) [Search Products](#) [Place Order](#) [Admin Panel](#) [Payment](#) [Help](#)

## E-Commerce Management System

Internet Application Development Lab Project

### Welcome to Our Store

Manage customers, products, orders, and inventory all in one place.

<b>Customer Management</b> Register new customers and manage their information <a href="#">Register Now</a>	<b>Product Search</b> Search and browse products by category, size, and color <a href="#">Search Products</a>	<b>Order Processing</b> Create and manage customer orders <a href="#">Place Order</a>
<b>Admin Panel</b> Role-based access control for inventory and product management <a href="#">Admin Panel</a>	<b>Payment Processing</b> Process payments via card, cash, or bank transfer <a href="#">Process Payment</a>	<b>User Guide</b> Step-by-step instructions and database schema reference <a href="#">View Help</a>

### Need Help?

Navigate through the menu above to access different functionalities:

- **Registration:** Add new customers to the system (auto-generated IDs from 1001)
- **Search:** Find products with partial name matching and multi-filter support
- **Order:** Create new orders for customers with multiple product items
- **Admin:** Role-based access & "Admin, Manager, Sales Staff, Inventory Manager, Read Only"
- **Payment:** Process order payments via Credit/Debit Card, Cash, or Bank Transfer
- **Help:** View the full [User Guide](#) for detailed instructions

## 2. Customer Registration Page:

The Customer Registration page allows new customers to enter their personal details including Full Name, Email Address, and Phone Number. The form uses client-side JavaScript validation: the name must be at least 2 characters, the email must match a standard format, and the phone number must contain at least 7 digits. On successful submission a confirmation alert displays the auto-generated Customer ID.

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### Customer Registration

#### Register New Customer

Fill in the details below to create a new customer account.

<b>Full Name: *</b>	<input type="text" value="Enter full name (min 2 cha"/> <small>Minimum 2 characters required</small>
<b>Email Address: *</b>	<input type="text" value="example@email.com"/> <small>Must be a valid email format</small>
<b>Phone Number: *</b>	<input type="text" value="Enter phone number"/> <small>Contact number for customer</small>
<input type="button" value="Register Customer"/> <input type="button" value="Clear Form"/> <a href="#">Cancel</a>	

#### Registration Information

- Customer ID will be auto-generated starting from 1001
- Email must be unique in the system
- All fields marked with \* are required

### 3. Product Search Page:

The Product Search page enables users to find products using partial name matching together with optional filters for Category (Electronics, Clothing, Accessories, Home & Garden), Size (Small, Medium, Large), Color (White, Black, Gray), and a minimum/maximum price range. Results are displayed in a dynamic table showing Product ID, Name, Category, Price, Size, Color, and an Order button.

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## Product Search

### Find Products

Search for products using partial name matching and filters.

**Product Name:**   
Search will find all products containing this text

**Category:**

**Size:**

**Color:**

**Min Price:**

**Max Price:**

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### Search Results

Results will appear here after search.

**Product ID Product Name Category Price Size Color Actions**  
*No products found. Please search above.*

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## 4. Place Order Page:

The Place Order page allows customers to create a new order by entering their Customer ID, selecting an Order Date (defaulting to the current date/time), and adding one or more order items. Each item row accepts a Product ID, Quantity, and Unit Price; the Total Amount field is updated automatically in real time as the user types (Quantity x Unit Price). An "Add Another Item" button appends additional rows. On submission, the form validates that a Customer ID is provided and the total is greater than zero, then displays a success message and resets the form.

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### Place New Order

**Create New Order**

Select customer and add products to create an order.

**Customer Information**

Customer ID: \*  Enter existing customer ID or register new customer

Customer Name:

Order Date: \*

**Order Items**

Product ID: \*  Qty: \*  Unit Price: \*

[+ Add Another Product](#)

**Order Summary**

Order Status:

Total Amount:  Auto-calculated from order items

[Place Order](#) [Clear Form](#) [Cancel](#)

**Order Information**

- Order ID will be auto-generated starting from 10001
- Each product can only be added once per order
- Quantity must be at least 1
- Total amount will be calculated automatically

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## 5. Admin Panel:

The Admin Panel implements Role-Based Access Control across five roles: Admin, Manager, Sales Staff, Inventory Manager, and Read Only. After selecting a role from the dropdown and clicking "Login", only the sections relevant to that role become visible. The Admin role exposes all CRUD sections (Products, Categories, Stores, Users). The Manager role shows read/update panels for Products and Inventory. Sales Staff can manage Customers and Orders. The Inventory Manager role provides CRUD access to Inventory records. The Read Only role displays a read-only data viewer. Each role section includes a colour-coded badge and a descriptive permission summary.

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### Admin Panel

#### Role-Based Access Control

Login to access administrative functions.

**Administrator Login**

**Username: \***

**Password: \***

**Role: \***

#### Role Permissions

- **Admin:** Full CRUD permissions on all tables. Can create, modify, and delete database objects. Complete database oversight.
- **Manager:** Read and update permissions on most tables. Can manage inventory, update order statuses, and view reports. Cannot delete critical data.
- **Sales Staff:** Can create and view customer orders, manage customer information. Read access to products and inventory. Cannot modify prices or inventory quantities.
- **Inventory Manager:** Specialized role for inventory and stock control. Can update inventory levels, manage store stock. Read access to orders for inventory tracking.
- **Read Only:** View-only access to all tables for reporting and analysis. Cannot make any changes. Suitable for analysts and auditors.

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## 6. Payment Processing Page:

The Payment Processing page handles order payments and supports four payment methods: Credit Card, Debit Card, Cash, and Bank Transfer. Selecting a method dynamically shows the relevant input fields (card details for card payments or a bank reference number for bank transfers). For Cash payments, an "Amount Received" field auto-calculates the change due (Amount Received minus Order Amount) in real time, colouring the field red when insufficient and green when adequate. The Payment Date defaults to the current date/time. On submission, the form validates that an Order ID is entered, a payment method is selected, and the cash amount is sufficient, then shows a success confirmation and resets the form.

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### Payment Processing

#### Process Payment

Enter order details and payment information.

**Order Information**

**Order ID:**  Order ID starts from 10001

**Order Amount:**

**Customer:**

**Payment Method**

**Payment Method:** \*

**Payment Summary**

**Payment Status:**

**Payment Date:**

**Notes:**

[Process Payment](#) | [Clear Form](#) | [Cancel](#)

#### Payment Information

- Supported payment methods: Credit/Debit Card, Cash, Bank Transfer
- All card information is securely processed
- Payment receipt will be generated after successful processing
- Order status will be automatically updated after payment

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## 7. Help Page:

The Help page provides a comprehensive user guide for the entire system. It is divided into sections corresponding to each module: Registration, Product Search, Place Order, Admin Panel, and Payment Processing. Each section contains step-by-step instructions for using that module. A Database Schema Reference table lists all major tables with their key fields, and a Roles & Permissions table summarises the five RBAC roles and their allowed operations. The Help page is accessible from the navigation bar on every page of the application.

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### User Guide

How to use the E-Commerce Management System

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#### System Overview

This web application manages an e-commerce database system with the following key features:

- 1. Customer Registration**

**Purpose:** Register new customers in the system

**How to use:**

  - Navigate to "Customer Registration" from the menu
  - Fill in full name (minimum 2 characters)
  - Enter a valid email address (must be unique)
  - Provide a phone number
  - Click "Register Customer" to submit

**Notes:** Customer ID is auto-generated starting from 1001
- 2. Search Products**

**Purpose:** Find products using various filters

**How to use:**

  - Enter product name (supports partial matching)
  - Select category, size, and color filters (optional)
  - Set price range if needed
  - Click "Search Products" to view results

**Features:**

  - Partial name matching (e.g., "shirt" finds "T-Shirt", "Blue Shirt")
  - Multiple filter options can be combined
  - Results displayed in a table format
- 3. Place Order**

**Purpose:** Create new customer orders

**How to use:**

  - Enter existing Customer ID
  - Select order date and time
  - Add products by entering Product ID, Quantity, and Unit Price
  - Click "+ Add Another Product" to add multiple items
  - Select order status
  - Total amount is calculated automatically
  - Click "Place Order" to submit

**Constraints:**

  - Each product can only appear once per order
  - Quantity must be at least 1
  - Order ID auto-generated starting from 10001
- 4. Admin Panel (Role-Based Access)**

**Purpose:** Administrative functions with role-based permissions

**How to use:**

  - Login with username, password, and select role
  - Access level depends on role selected

**Available Roles:**

  - **Admin:** Full CRUD on all tables. Can create tables, views, procedures, and triggers.
  - **Manager:** Read and update on most tables. Can view reports, manage inventory, update order statuses. Cannot delete critical data.
  - **Sales Staff:** Can create and view customer orders and manage customer information. Read access to products. Cannot modify prices.
  - **Inventory Manager:** Full CRUD on Inventory table. Can update inventory levels and manage store stock. Read access to orders.
  - **Read Only:** View-only access to all tables. Cannot make any changes. Suitable for analysts and auditors.
- 5. Payment Processing**

**Purpose:** Process payments for orders

**How to use:**

  - Enter Order ID to process payment
  - Select payment method (Credit Card, Debit Card, Cash, Bank Transfer)
  - Fill in payment-specific details based on method selected
  - Set payment status
  - Click "Process Payment" to complete

**Payment Methods:**

  - **Credit/Debit Card:** Enter card number, holder name, expiry, CVV
  - **Cash:** Enter amount received, change calculated automatically
  - **Bank Transfer:** Enter bank details and transaction reference

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