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**Ligma Shop Project**

1. **System description**

-Dự án trang web thương mại bán đồ thời trang nam nữ chuyên sỉ lẻ, giao hàng toàn quốc, tư vấn khách hàng 24/7, siêu sale hàng tháng, giá cả tuyệt vời, chất lượng đạt chuẩn quốc tế, không nhanh không rẻ không lấy tiền. Hãy nhanh tay tham gia mua sắm cùng chúng tôi nhé ^^

1. **Technology to use**

After completing the exercise course, students will grasp the following knowledge: Http,Servlet,JSP,JSTL,SQL Server, JDBC,Java Bean,Session,Cookies,Filter,TagLib,Listener.

1. **System description**

**1. What services does the system provide to Users?**

The fashion shop website provides the following core services to users:

Regular Customers can:

- Browse and search through clothing collections by categories, sizes, colors, and prices

- View detailed product information including materials, care instructions, and size guides

- Create and manage personal accounts with saved preferences and measurements

- Add items to shopping cart and wishlist

- Place orders and track order status

- Make payments through various payment methods

- Write product reviews and ratings

- Access order history and manage returns/exchanges

- Receive size recommendations and outfit suggestions

- Contact customer support through chat or email

- Participate in the loyalty program

- Share products on social media

- Subscribe to newsletters for updates and promotions

Guest Users can:

- Browse products and view details

- Use the search and filter functions

- Add items to cart (temporary session)

- View size guides and product information

- Read product reviews

- Access the FAQ section

**2. What does the management system allow the admin to do?**

The admin panel provides comprehensive management capabilities:

Product Management:

- Add, edit, and remove products from the catalog

- Manage product categories and collections

- Update product details, prices, and inventory levels

- Handle product images and descriptions

- Set up promotional pricing and discounts

- Manage size and color variations

Inventory Management:

- Track stock levels across all products

- Receive low stock alerts

- Manage inventory across different sizes and colors

- View inventory reports and analytics

- Handle stock transfers and returns

Order Management:

- View and process incoming orders

- Update order status and tracking information

- Handle returns and exchanges

- Generate shipping labels and invoices

- Process refunds when necessary

Customer Management:

- View customer profiles and purchase history

- Handle customer support tickets

- Manage loyalty program

- Send targeted marketing communications

- Process customer feedback and reviews

Content Management:

- Update homepage banners and featured collections

- Manage blog content and fashion articles

- Update size guides and product care information

- Maintain FAQ section

- Create and manage promotional content

Analytics and Reporting:

- View sales reports and analytics

- Track customer behavior and preferences

- Monitor website performance

- Generate inventory reports

- Analyze marketing campaign effectiveness

**3. What information does the system manage?**

The system manages several key types of information:

Product Information:

- Product ID/SKU

- Name and description

- Category and subcategory

- Price and promotional pricing

- Available sizes and colors

- Material composition

- Care instructions

- Stock levels

- Product images

- Related products

- Reviews and ratings

Customer Information:

- Personal details (name, email, phone)

- Shipping addresses

- Payment information

- Size preferences

- Order history

- Wishlist items

- Loyalty points

- Review history

- Communication preferences

Order Information:

- Order ID

- Order date and status

- Items purchased (quantity, size, color)

- Shipping details

- Payment information

- Tracking information

- Return/exchange status

Marketing Information:

- Promotional campaigns

- Discount codes

- Newsletter subscriptions

- Social media integrations

- Customer segments

- Marketing analytics

System Information:

- User roles and permissions

- System logs

- Performance metrics

- Security information

- Backup data

1. **System** **requirements**

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| Requirement 1 | Project Structure and Basic Features |
| Objectives | Build the project using MVC architecture with JSP, JSTL & Servle |
| Description | -Create a responsive home page showcasing featured clothing items, new arrivals, and seasonal collections  - Implement a navigation system with categories like Men's Wear, Women's Wear, Accessories, etc.  - Create product listing pages with filtering options for categories, sizes, colors, and price ranges |

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| Requirement 2 | Product and Inventory Management |
| Objectives | - Connect to database using Java beans and JDBC  - Query such as search, add new, delete, edit, delete |
|  | - Implement CRUD operations for products including:  + Adding new clothing items with details like size, color, material, price  + Managing inventory levels across different sizes and colors  + Updating product information and stock levels  + Removing discontinued items  - Create an admin dashboard for inventory management  - Implement image upload and management for product photos |

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| Requirement 3 | Data Validation and Business Rules The system should validate |
| Objectives | ● Create a common package to perform data validation |
|  | - Product SKUs following format: CATXXX-YY (CAT is category code, X is number, Y is size)  - Price must be positive and follow proper currency format  - Inventory quantities must be non-negative integers  - Image files must be in correct formats (JPG, PNG) and within size limits  - Email addresses for customer accounts  - Phone numbers in standard formats  - Dates for sales, promotions, and product launches - Size charts according to international standards (S, M, L, XL or numeric sizes) |

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| Requirement 4 | User Authentication and Profiles |
|  | Objectives  ● Use session  ● Use Cookie |
|  | - Implement customer registration and login system  - Create customer profiles with:  + Shipping addresses  + Size preferences  + Wishlist  + Order history  - Remember customer preferences using cookies  - Allow customers to save favorite items  - Implement password reset functionality |

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| Requirement 5 | Shopping Cart and Order Management |
| Objective | adding, viewing, updating, and removing items from the cart |
|  | - Create a robust shopping cart system with:  + Add/remove items  + Update quantities  + Size/color selection  + Cart persistence across sessions  - Implement order processing:  + Order confirmation  + Status tracking  + Order history  + Return/exchange management  - Generate order invoices and shipping labels |

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| Requirement 6 | Payment Integration |
|  | - Integrate multiple payment methods:  + Credit/debit cards  + Digital wallets (PayPal, MoMo, ZaloPay)  + Bank transfers  + COD (Cash on Delivery)  - Implement secure payment processing  - Handle payment status updates  - Generate payment receipts  - Manage refunds and returns |

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| Requirement 7 | Social Integration and Marketing |
|  | - Implement social login (Google)  - Enable social sharing of products  - Create a referral system  - Implement email marketing integration  - Membership customer  - Allow product reviews and ratings  - Create a fashion blog section - Integrate with social media feeds |
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| Requirement 8 | Analytics and Reporting |
| Objective | - Track and analyze:  +Best-selling items  + Popular sizes and colors  + Sales trends  + Customer behavior  + Inventory turnover  + Revenue by category  - Generate visual reports using charts and graphs  - Export reports in various formats  - Monitor stock levels and trigger alerts |

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| Requirement 9 | Customer Service and Engagement |
| Objective | - Implement size recommendation system  - Create outfit suggestion feature  - Implement chat support  - Create FAQ system  - Send order status notifications  - Implement product availability alerts  - Create loyalty program system  - Handle customer feedback and reviews |
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| Requirement 10 | UI/UX |
| Objective | UI Improvements:  - Create intuitive product browsing  - Implement quick view features  - Add product zoom functionality  - Create size guides - Implement color swatches  - Add to cart animations  - Wishlist functionality  Performance Optimization:  - Image optimization  - Lazy loading  - Session management  - Cache implementation  - Mobile responsiveness  - Search optimization  - Page load speed optimization |