

Project 26: Goldmarks Online Jewellery Store Management System

About the Client

Goldmarks is Australia's industry leader in jewellery, watch and giftware specialty retailing.

Formed in Melbourne in 1895, the Company has been a leading name in Australian jewellery ever since and has continued to enjoy a reputation for consistently high quality, value and service.

Goldmarks offers customers a comprehensive range of stunning diamonds, coloured gems, gold and silver jewellery, watches, giftware and related products.

Ever since its earliest days, Goldmarks has been a home for superb craftsmanship. Today, the tradition of craftsmanship continues, thanks to a wide range of suppliers from around the world.

The long-term success of Goldmarks rests on our key values, including dedication to the customer, assurance of quality and value, uniqueness and innovation, excellence, leadership and responsibility. For you, this means ensuring you receive a piece you can be proud of for life.

Furthermore, you can rest assured that Goldmarks will still be here for many years to come. If you need an alteration or repair, the Company is well placed to assist. Throughout its history, the Company has remained true to its founding principles, while evolving to reflect changing demands. When you purchase an item of jewellery from Goldmarks, you can be confident you're taking part in an Australian tradition.

Project Brief & Business Problem Specifications:

Our client Goldmarks wants to completely redesign their online presence with new tech implementation on both frontend and backend levels. The existing system need to redesign due to the following reasons:

Higher Overall Traffic. With more visitors coming to the website, client will have more chances to acquire new customers.

Higher Conversion Rates. An attractive website and storefront will draw in more visitors and encourage them to make a purchase.

More Leads and Sales. An e-commerce website redesign should optimize the shop to match the digital marketing strategies, pulling in more leads and closing more sales.

Better Customer Retention. The experience of shopping on a top-tier website will inspire many of the customers to return to the shop and make additional purchases.

The project should be a web-based application with 150 products store and extendable in future. The main goal of this project is to create a shopping cart, which allows customers to shop and purchase Jewelry products online. Moreover, the project should also be designed in such a way it lets managers manage the products information. Customers can orders products, and they could be contacted to further process the orders.

System Modules Requirements

User Management Module

- Customer registration and login
- Profile management (address, contact, preferences)
- Admin and staff accounts with roles and permissions

Product Catalogue Management Module

- Add, edit, delete jewellery products
- Categories (rings, necklaces, earrings, bracelets, custom)
- Product details (images, descriptions, price, weight, material, stock level)
- Featured and new arrivals

Inventory Management Module

- Stock tracking
- Low stock alerts

- Batch or serial number tracking (if needed)
- Supplier linking for restocking

Shopping Cart Module

- Add/remove/update items in cart
- Save cart for later
- Cart preview and summary

Order Management Module

- Order placement
- Order tracking
- Status updates (pending, shipped, delivered, cancelled)
- Order history for customers

Payment Management Module

- Multiple payment options
- Secure payment gateway integration
- Payment confirmation and receipts
- Refund processing

Shipping and Delivery Management Module

- Shipping address management
- Delivery method selection
- Shipping cost calculation
- Integration with courier services (optional)
- Delivery status tracking

Customer Reviews and Ratings Module

- Product reviews
- Star ratings
- Admin moderation of reviews

Promotions and Discounts Module

- Discount codes/coupons
- Flash sales
- Featured deals
- Automated discount rules

Wishlist Management Module

- Add/remove items from wishlist
- View and manage wishlist

Notifications and Alerts Module

- Email and SMS notifications for order status
- Promotional emails
- Stock alerts (e.g. back in stock)

Admin Dashboard

- User management
- Product and inventory management
- Order management
- Sales reports
- System settings

Reporting and Analytics Module

- Sales reports (daily, monthly, custom)

- Inventory reports
- Customer purchase behaviour
- Revenue and profit summaries

Content Management System (CMS)

- Manage static pages (About Us, Contact, FAQs, Policies)
- Blog or news section
- SEO settings for pages

Audit and Logs

- Track admin and staff activities
- Change history for products and orders
- Secure log storage

Help and Support Module

- Contact form
- Live chat integration
- FAQs section
- Customer support ticketing system

User Modules (User Frontend):

Developers need to research and discuss with the client to finalise the modules and requirements.

UI Design

User Interface Design is concerned with the dialogue between a user

and the computer. It is concerned with everything from starting the system or logging into the system to the eventually presentation of desired inputs and outputs. The overall flow of screens and messages is called a dialogue.

UI Design Requirements

1. The system user should always be aware of what to do next.
2. The screen should be formatted so that various types of information, instructions and messages always appear in the same general display area.
3. Message, instructions or information should be displayed long enough to allow the system user to read them.
4. Use display attributes sparingly.
5. Default values for fields and answers to be entered by the user should be specified.
6. A user should not be allowed to proceed without correcting an error.
7. The system user should never get an operating system message or fatal error.

The aim of proposed system is to develop a system of improved facilities. The proposed system can overcome all the limitations of the existing system. The system provides proper security and reduces the manual work.

- Security of data.
- Ensure data accuracy's
- Proper control of the higher officials.
- Minimize manual data entry.
- Minimum time needed for the various processing.
- Greater efficiency.
- Better service.
- User friendliness and interactive.

- Minimum time required.

Functional Requirements:

- Customer registration and login
- Profile creation and editing with address, contact, and preferences
- Role-based access for admin and staff
- Secure password reset and change options
- Adding, editing, and deleting jewellery products
- Organising products into categories such as rings, necklaces, earrings, bracelets
- Managing product details including images, descriptions, prices, weight, materials, and stock levels
- Highlighting featured products and new arrivals
- Tracking stock levels for all products
- Generating low stock alerts
- Managing batch or serial numbers if needed
- Linking products to supplier information for restocking
- Adding, removing, and updating items in the cart
- Saving cart contents for later
- Displaying cart preview and summary with totals
- Placing new customer orders
- Tracking order status (pending, shipped, delivered, cancelled)
- Updating order statuses for customers
- Maintaining order history for repeat customers
- Supporting multiple payment options such as credit cards, PayPal, bank transfer, and cash on delivery
- Integrating with secure payment gateways
- Generating payment confirmations and receipts
- Processing refunds when needed
- Managing shipping addresses
- Offering delivery method selection at checkout
- Calculating shipping costs automatically
- Integrating with courier services for tracking
- Providing delivery status updates
- Allowing customers to leave product reviews and star ratings
- Moderating and managing customer reviews
- Creating and managing discount codes and coupons
- Running flash sales and special promotions
- Highlighting featured deals on the storefront
- Automating discount rules based on conditions
- Adding and removing items from customer wishlists

- Viewing and managing saved wishlist items
- Sending email and SMS notifications for order status updates
- Sending promotional and marketing emails
- Notifying customers when items are back in stock
- Managing users and roles
- Overseeing product and inventory updates
- Monitoring orders and sales
- Accessing system configuration and settings
- Generating daily, monthly, or custom sales reports
- Producing inventory usage and stock level reports
- Analysing customer purchasing behaviour
- Viewing revenue and profit summaries
- Editing and managing static content pages such as About Us, Contact, FAQs, and Policies
- Publishing and managing blog or news articles
- Configuring SEO settings for pages and products
- Recording admin and staff activity logs
- Tracking changes to products, orders, and key data
- Storing logs securely for review
- Providing a customer contact form
- Offering live chat integration for real-time support (optional)
- Maintaining an FAQs section for common questions
- Managing customer support tickets to track issues and resolutions

Non-Functional Requirements

- Fast page load times, ideally under 2 seconds
- Support for high numbers of users without slowdowns
- Ability to scale as user base and catalogue grow
- Minimum uptime of 99.5%, excluding planned maintenance
- Reliable operation without crashes or data loss
- Clear and consistent error handling with user-friendly messages
- Modular, maintainable, and well-documented codebase
- Easy to update with new features or improvements
- Encrypted storage for sensitive data such as user passwords
- Secure HTTPS connections for all user interactions
- Input validation to prevent SQL injection and cross-site scripting
- Role-based access control to restrict admin and staff permissions
- User consent for data collection and marketing communications
- Ability for users to delete their accounts and personal data
- Easy-to-use interface for all user roles

- Responsive design that works on desktop and mobile devices
- Accessibility features to support users with disabilities
- Regular automated backups of all critical data
- Clear procedures for restoring data from backups
- Compatibility with major browsers such as Chrome, Firefox, Safari, and Edge
- Mobile-friendly layout and navigation
- Secure integration with third-party services such as payment gateways and couriers
- Logging of key admin and user actions for auditing
- Secure storage of activity logs with restricted access

Hardware Requirement: Should be recommended by the developers.

Software Requirement: Should be recommended by the developers.