Watch E■commerce Website – Complete End■to■End Project Plan (0 → 100)

This document is a complete, production■grade roadmap for building a professional watch e■commerce website using Django, Postgres, Tailwind, and modern best practices. It covers every phase from scope definition to deployment, with deliverables and acceptance criteria for each stage.

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Phase 0 – Scope & Outcomes (1 day)

• Define MVP: product listing, product detail, cart, checkout (no online payment in MVP), admin management.

• Backlog 'Next' items: online payment, advanced filters, accounts, coupons, search.

• Decide on temporary brand name, simple logo, and branding direction.

• Establish design system: typography, primary colors (#0B0B0B black, #F7F7F7 white, #D4AF37 gold).

• Deliverable: 1■page scope doc + finalized palette & fonts.

Phase 1 – Project Setup (0.5 day)

• Create Django project and apps: catalog, orders, accounts, core.

• Configure STATIC/MEDIA, database (SQLite initially, Postgres later).

• Integrate Tailwind (JIT) with RTL support.

• Deliverable: Home page renders with Tailwind build.

Phase 2 – Data Modeling (1–2 days)

• Models: Brand, Category, Product, ProductImage, Cart, CartItem, Order, OrderItem.

• Optional: Variant model (sku, stock, price, band size, color).

• Indexes for slug, is_active, brand, category for performance.

• Methods: Product.get_final_price(), Product.in_stock().

• Deliverable: Migrations applied, admin shows models.

Phase 3 – Admin UX (0.5–1 day)

• Add ListDisplay and Filters for product list (brand, category, is_active).

• Inline ProductImage in admin form.

• Enable search by title and slug.

• Bulk actions: activate/deactivate, set category.

• Deliverable: Easy management of products and images.

Phase 4 – Seed Data (0.5 day)

• Prepare ~20 sample watches across brands, price ranges, and styles.

• Attach 1000px square images; generate thumbnails using Pillow.

• Deliverable: Database seeded with realistic dataset.

Phase 5 – Frontend MVP Pages (2–3 days)

- Routes: / (home), /watches/, /watches//, /cart/, /checkout/.

- Home: hero banner, featured watches, new arrivals.

- Product listing: responsive grid with cards showing image, name, price, and badges.

- Product detail: gallery with thumbnails, technical specs, add to cart button, related products.

- Cart: table of items (thumbnail, name, price, qty, subtotal).

- Checkout: short form (name, phone, city, address, postal code) + order summary.

- Deliverable: Full browsing and checkout flow without payment.

Phase 6 – Cart & Orders (1–2 days)

- Session/user■bound cart with add/update/remove functionality.

- Server■side totals with tax/discount logic.

- Convert cart to order with OrderItems.

- Email confirmation to customer (console in dev, Celery in prod).

- Deliverable: Orders created correctly; cart flow works.

Phase 7 – Filters & Sorting (1 day)

- Filters: price range, brand, color, band material, water resistance.

- Sorting options: newest, cheapest, most expensive.

- Querystring■based implementation with active state highlights.

- Deliverable: Usable, shareable filtered product listings.

Phase 8 – Search (0.5–1 day)

- Simple icontains search across product title, brand, category.

- Optional: highlight matching keywords in results.

- Deliverable: Accurate, fast search results.

Phase 9 – Online Payments (1–2 days, upgrade)

- Integrate Zarinpal/NextPay gateway (Stripe for international).

- Payment model; create payment, redirect to gateway, verify callback.

- Update order.status=paid on success.

- Prevent double charges; handle webhooks.

- Deliverable: Successful end■to■end test transaction.

Phase 10 – Accounts & Addresses (1–1.5 days)

- Implement user accounts with email/password (OTP later).

• User dashboard: order history, saved addresses, wishlist (optional).

• Deliverable: Users can log in and view their past orders.

Phase 11 – Coupons & Discounts (0.5–1 day)

• Coupon model: percent/fixed value, min spend, active dates, usage limits.

• Validation at checkout for expiry, limits, minimum spend.

• Deliverable: Discounts correctly applied in orders.

Phase 12 – Reviews & Ratings (0.5–1 day)

• Review model with rating, text, user, approval flag.

• Moderation via admin before public display.

• Show average rating and recent reviews on product detail page.

• Deliverable: Product reviews visible with anti■spam measures.

Phase 13 – SEO & Marketing (1 day)

• Add dynamic meta tags, Open Graph tags.

• Create sitemap.xml and robots.txt.

• Add breadcrumbs for navigation and SEO.

• Schema.org structured data for products and offers.

• Deliverable: Lighthouse SEO score ≥ 90, crawlable pages.

Phase 14 – Performance & Scaling (1–2 days)

• Optimize queries with select_related and prefetch_related.

• Implement caching for product lists and fragments.

• Image optimization: thumbnails, WebP, lazy loading.

• Enable gzip/Brotli compression in Nginx.

• Deliverable: Fast TTFB and improved scalability.

Phase 15 – Security & Compliance (0.5–1 day)

• Enforce CSRF protection, HTTPS, secure cookies.

• Add HSTS, X■Frame■Options, Content Security Policy (no unsafe■eval).

• Validate all inputs on client and server.

• Add anti■spam protection on reviews.

• Deliverable: No security warnings in scans.

Phase 16 – Logging, Monitoring, Analytics (0.5 day)

• Integrate Sentry for error tracking.

• Healthcheck endpoint for uptime monitoring.

• Google Analytics/Matomo with user consent.

• Deliverable: Errors captured, traffic analytics dashboard live.

Phase 17 – Testing (1 day)

• Unit tests for models (pricing, stock, coupon logic).

• Integration tests for cart and checkout flows.

• E2E tests (Playwright/Cypress) for purchase flow.

• Deliverable: CI pipeline green; all critical flows tested.

Phase 18 – Deployment (1 day)

• Dockerfile with multi■stage build (Gunicorn + Nginx).

• Managed Postgres instance; run collectstatic & migrations.

• Serve static/media via S3 or local volume.

• Enable HTTPS with reverse proxy and SSL cert.

• Deliverable: Stable production deployment.

Phase 19 – Real Payments & Legal Pages (0.5–1 day)

• Switch to live payment gateway.

• Add Terms of Service and Privacy Policy pages.

• Generate PDF invoices for orders with numbering.

• Deliverable: Real purchase works; legal compliance covered.

Phase 20 – Final UX Polish (1 day)

• Add micro■interactions, skeleton loaders, and empty states.

• Create brand landing pages with hero banners.

• Basic recommendations system for related products.

• Deliverable: Smooth, mobile■first polished UX.

Extras – Folder Structure, UI Components, Services, MVP Checklist

Suggested Folder Structure:

shop/ core/, catalog/, orders/, accounts/, static/, templates/

Key UI Components (Tailwind):

• Product card: image, name, price, hover state.

• Product gallery: main image + thumbnails.

• Accordion filters with counts (Brand (12), Color (8)).

• Toast notifications for add■to■cart.

Service Layers:

• pricing.py: compute final price including discounts.

• checkout.py: build order from cart.

• gateways/zarinpal.py: initiate & verify transactions.

MVP Acceptance Checklist:

■ Admin can create/edit product with multiple images.

■ Catalog pages list and detail products, add to cart works.

■ Cart and checkout work without payment.

■ Email confirmation sent (console).

■ Responsive layout; Lighthouse scores ≥ 90.