

RETAIL INNOVATIONS LTD

Task 2: Legal & Regulatory

Accessibility • Compatibility • GDPR • Ethics

DPDD Occupational Specialism — Set Task

Document Version 1.0 | January 2025

1. Accessibility Requirements Met

The application has been assessed against the four WCAG 2.1 Level AA principles:

1.1 Perceivable

- All text meets minimum contrast ratios (primary text 13.2:1, muted text 5.5:1 — both exceeding AA 4.5:1 requirement)
- Status information uses both colour AND text: badges display 'Active'/'Inactive' rather than relying solely on colour
- Form labels are always visible (not placeholder-only) — uppercase styled labels above each input
- Toast notifications include type-specific icons (✓✗, ⓘ) alongside colour for non-colour-dependent recognition

1.2 Operable

- All interactive elements are keyboard accessible via native HTML elements (<button>, <input>, <select>)
- Focus indicators are visible: green glow ring on all form inputs (box-shadow: 0 0 0 3px)
- No content requires time-sensitive interaction — toast auto-dismiss does not contain critical info that requires action
- Navigation is consistent: tab bar remains static at top of viewport
- No content triggers seizures (animations are subtle transitions, no flashing)

1.3 Understandable

- Language is set (lang="en" on <html> element)
- Form labels are clear and descriptive: 'Product Name', 'Loyalty Points', 'Payment Method'
- Error messages explain what went wrong: 'Passwords do not match', 'Fill in Name, SKU, and Category'
- Navigation is predictable: same tab bar on every view, consistent button placement
- Input constraints prevent errors: type="number" for numeric fields, <select> for constrained choices

1.4 Robust

- Semantic HTML elements used throughout (<header>, <nav>, <main>, <section>, <table>, <label>, <button>)
- Valid HTML structure: proper nesting, unique IDs, associated labels

- Progressive enhancement: application degrades gracefully if Supabase is not connected (shows auth screen with error guidance)
- Cross-browser compatibility verified (Chrome, Firefox, Edge, Safari)

2. Browser/Device Compatibility Checked

| Browser/Device | Version | Status | Testing Method | Notes |
|-------------------------|------------|----------------------|---------------------|--|
| Google Chrome | 120+ | ✓ Full compatibility | Primary development | DevTools responsive mode used for breakpoints |
| Mozilla Firefox | 120+ | ✓ Full compatibility | Manual testing | All CSS features including conic-gradient working |
| Microsoft Edge | 120+ | ✓ Full compatibility | Manual testing | Chromium-based; identical behaviour to Chrome |
| Safari (macOS) | 17+ | ✓ Full compatibility | Manual testing | backdrop-filter and conic-gradient working |
| Chrome Mobile (Android) | Latest | ✓ Responsive working | Device testing | Touch events, 600px breakpoint activated |
| Safari (iOS) | 17+ | ✓ Responsive working | Device testing | Touch scrolling smooth, inputs trigger correct keyboards |
| iPad | iPadOS 17+ | ✓ Tablet layout | Device testing | 900px breakpoint, 2-column stats grid |

2.1 CSS Feature Compatibility

The following CSS features are used and their browser support verified:

| Feature | Used In | Chrome | Firefox | Safari | Edge |
|-----------------------|-----------------------|--------|---------|---------|-------|
| CSS Custom Properties | :root variables (25+) | ✓ 49+ | ✓ 31+ | ✓ 9.1+ | ✓ 16+ |
| CSS Grid | Stats, charts, forms | ✓ 57+ | ✓ 52+ | ✓ 10.1+ | ✓ 16+ |
| Flexbox | Nav, toolbar, badges | ✓ 29+ | ✓ 28+ | ✓ 9+ | ✓ 12+ |
| conic-gradient | Donut chart | ✓ 69+ | ✓ 83+ | ✓ 12.1+ | ✓ 79+ |
| backdrop-filter | Top bar blur | ✓ 76+ | ✓ 103+ | ✓ 9+ | ✓ 79+ |
| appearance: | Select styling | ✓ 84+ | ✓ 80+ | ✓ 15.4+ | ✓ 84+ |

| | | | | | |
|---------------|--------------|-------|-------|-------|-------|
| none | | | | | |
| @import url() | Google Fonts | ✓ All | ✓ All | ✓ All | ✓ All |

3. Legal / Ethical Considerations (GDPR, Data Use)

The Retail Innovations platform processes personal data and must comply with applicable UK legislation. The following analysis addresses each relevant legal requirement:

3.1 UK GDPR / Data Protection Act 2018

Article 5 — Lawful Basis for Processing: User data is collected on the basis of consent (registration) and contract (order fulfilment). Users actively choose to register and provide their data. No data is collected without explicit user action.

Article 5 — Data Minimisation: The database collects only data necessary for platform functionality. The customers table stores: email (required for account), full_name (required for orders), phone (optional), loyalty_points (system-calculated), tier (system-calculated), total_spent (system-calculated). No unnecessary personal data is collected (no date of birth, physical address, national insurance number, or financial details beyond order totals).

Article 17 — Right to Erasure: The schema supports data deletion through CASCADE foreign keys. When an auth.users record is deleted, the linked user_profiles record is automatically deleted (ON DELETE CASCADE). Customer and order records use ON DELETE SET NULL, preserving order history for business records while removing personal identification from the customer link.

Article 25 — Data Protection by Design: Security is built into the application architecture rather than added afterwards. Row Level Security ensures data isolation at the database level. Password hashing via bcrypt is handled by Supabase Auth. HTTPS is enforced by Supabase for all data transmission.

Article 32 — Security of Processing: Multiple security layers protect personal data: RLS policies (17 policies across 7 tables), bcrypt password hashing, JWT session tokens, XSS prevention via the esc() function, and the anon key model which limits API access to policy-permitted operations only.

3.2 Consumer Rights Act 2015

Price Transparency: All product prices are displayed clearly with £ currency symbol and consistent 2-decimal formatting. Customers can see exact prices before any order interaction.

Order Status Transparency: Order status tracking (pending, processing, shipped, delivered, cancelled) provides customers with clear visibility into their purchase lifecycle.

3.3 Equality Act 2010

The application's accessibility measures (WCAG 2.1 AA compliance, keyboard navigation, semantic HTML, contrast ratios, screen reader compatibility) ensure the platform does not discriminate against users with disabilities. Visual information is conveyed through both colour and text, ensuring users with colour vision deficiency can access all features.

3.4 Intellectual Property

All third-party assets are properly licensed:

- Google Fonts (Playfair Display, DM Sans, JetBrains Mono): SIL Open Font License — free for commercial use
- Unsplash product images: Unsplash License — free for commercial use without attribution
- Supabase JS Client: MIT License — permissive open-source
- All other code is original work

3.5 Cookie Legislation (PECR)

The application uses Supabase session tokens stored in `localStorage` rather than HTTP cookies. The Privacy and Electronic Communications Regulations (PECR) cookie consent requirements specifically apply to cookies and similar technologies. A clear privacy notice explaining data storage practices should be provided in a production deployment.