

Defects list

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Here is a comprehensive list of possible test scenarios—including negative test cases—that may reveal defects or limitations in the demo ERP website you have. These will help you identify bugs or issues for functional, UI, validation, usability, accessibility, and security testing:

1. Customer Management

Functional & Validation Tests

- Add customer with empty Name → Should show an error. Mistake if it allows empty.
- Add customer with invalid email format (e.g., "foo@bar", "foo") → Should show validation error.
- Add customer with Name longer than 100 characters → Should show error, else defect.
- Add customer with Phone longer than 15 characters → Should show error, else defect.
- Add duplicate customer (same email/name) → No explicit duplicate check, so may allow duplicates (defect if duplicates are undesired).
- Delete customer → Confirm deletion happens. Attempt cancel in confirmation dialog to ensure it cancels properly.
- Delete non-existing customer (direct call in console or edge case) → Should gracefully handle.

2. Product Management

Functional & Validation Tests

- Add product with empty Name, SKU, or Price → Should prompt error.
- Add product with negative price → Should reject and show error.
- Add product with Name or SKU exceeding max length → Error expected.
- Add duplicate SKUs are not checked, so duplicates possible (may be defect if SKU uniqueness is expected).
- Delete product → Confirm removal and inventory update.
- Delete product in use in orders or invoices → Since no constraint, deleting product that exists in past orders may cause inconsistency (potential logical defect).

3. Inventory Management

Functional Tests

- Update inventory with negative quantity → Should reject and show error.
- Update inventory without selecting product → Should prompt error.
- Update inventory for a product that has been deleted → Cannot select deleted product; UI prevents it.
- Inventory reflects changes after orders reduce stock quantities.

4. Order Processing

Functional & Validation Tests

- Place order without selecting customer → Error expected.
- Place order with no items → Error expected.
- Place order item with zero/negative quantity → Error expected.
- Place order with quantity exceeding stock → Error expected and prevented.
- Place multiple items for same product → Allowed; may cause confusion or considered defect (depends on requirements).
- Place order, then delete product involved in order → Data inconsistency possible on reports/invoices (defect).
- Remove all order items in order form → UI behavior to verify, no empty submission allowed.

5. Invoice Generation

Functional & Validation Tests

- Generate invoice without selecting order → Error expected.
- Generate invoice for order already invoiced → Error expected.
- Generate invoice for non-existent order (via tampering) → Handled gracefully.

6. Reports & Analysis

Functional & Data Integrity

- Reports reflect consistent summary data aligned with current customers, products, orders, and invoices.
- Check correctness of Sales & Stock Analysis values after multiple orders and invoices.

7. User Management

Functional & Security

- Verify read-only status (No add/delete functionality).
- Attempt to access user management functionality bypassing normal UI (e.g. direct URL manipulation in single-page app) → Should not cause error or display partial data.

8. Navigation & Usability

- Back button navigates correctly through view history, including edge cases (back from initial dashboard).
- Try rapidly clicking back button multiple times → No UI crash or inconsistent state.
- Try direct navigation via console navigationTo with invalid view → Graceful fallback to "Page not found".
- Form submit buttons disabled states not implemented → Can improve usability by disabling submit when validation fails.

9. UI/UX & Accessibility

- Verify all form labels are associated with inputs (for screen readers).
- Keyboard navigation tests: Tab order correct, all interactive elements reachable.
- Color contrast suitable for visually impaired users.
- Screen readers read alert div correctly when error/success messages appear.
- Responsive layout on various screen sizes (mobile/tablet/desktop).
- Focus moves to first invalid input on form validation failure (currently not implemented).

10. Security & Data Integrity

- No backend implies no SQL injection risk.
- Try XSS injection by entering script tags in text inputs → Inputs are not sanitized and stored raw, so XSS possible (defect).
- Manipulate state via console to test stability and error handling.

11. Boundary & Stress Testing

- Test fields with inputs at max length limits.

- Add large number of customers/products/orders to check UI responsiveness.
- Test long order lists for pagination (not currently implemented—can be defect if scalability required).

Summary of Likely Defects

- Lack of duplicate checking for customers, products.
- No sanitization leading to possible XSS.
- Deletion of products/customers referenced by orders/invoices leads to inconsistent data views.
- Usability can be improved by disabling buttons until inputs are valid, and focusing first invalid field on validation error.
- No persistent data storage means all data lost on page reload (limitation by design).
- Accessibility is supported moderately but can be enhanced further (focus management on errors).
- No pagination or search/filter on large lists (scalability limitation).
- Rapid navigation/back operations could show edge case glitches.

You can use these scenarios as your test plan to demonstrate thorough manual testing and identify real issues in the system. Let me know if you want me to help with fixing or enhancing any of these!