

JobCardOnline - End-to-End Testing Plan (Checklist)

Use this as a release/UAT checklist. Tick each item only after validating expected behavior and capturing evidence (screenshots, logs, IDs, exported files).

1) Test Run Metadata

- **Build/Commit:** _____
 - **Environment:** Local / Staging / Production-like
 - **Database snapshot used:** _____
 - **Tester:** _____
 - **Date:** _____
 - **Browsers tested:** Chrome / Edge / Firefox / Safari
 - **Devices tested:** Desktop / Tablet / Mobile
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2) Pre-Flight Setup

- App boots without errors (web + queue + scheduler + assets).
 - Migrations run successfully.
 - Seed or baseline data loaded (customers, products, taxes, accounts, users, groups, companies).
 - Mail config valid (for email invoice/quote flows).
 - PDF generation works (preview/download/print).
 - Company defaults configured:
 - Default sales tax
 - Default sales account
 - Default purchasing tax
 - Default purchasing account
 - Default sales customer (for POS)
 - Dark mode toggle available and persistent.
 - Required permissions/groups configured for role testing.
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3) Authentication, Authorization, Company Context

- Login/logout/password reset basic flow.
 - Unauthorized users cannot access protected routes.
 - Module permissions enforced per role (list/view/create/edit/delete).
 - Company switcher works and data isolation is correct per company.
 - Shared state (current company, abilities) matches visible UI actions.
 - Forbidden actions return friendly messages (no raw 500 pages).
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4) Core UI Quality (Cross-Cutting)

- Search/filter/sort works on all list views.
 - Pagination works on all list views:
 - Previous/Next
 - Page number buttons
 - Disabled state behavior
 - Status button bars render correctly (light + dark).
 - Dropdown menus and hover states render correctly (light + dark).
 - Modals/backdrops render correctly (light + dark).
 - Form validation messages are clear and positioned correctly.
 - No `toFixed`/type errors in browser console.
 - No major console errors during normal navigation.
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5) Master Data Modules

Customers

- Create/Edit/Delete customer.
- `terms` dropdown works (COD / Net options).
- Customer search + quick create works.
- Customer terms appear in dependent forms (invoice/POS where applicable).

Contacts

- CRUD works.
- Pagination/search/filter works.

Products & Services

- CRUD works.
- Pricing/tax/account defaults respected.
- Product search in line item description fields works.

Suppliers

- CRUD works.
- Supplier linking in purchase orders works.

Tax Rates / Chart of Accounts / Bank Accounts

- CRUD + default flags work.
- Defaults are consumed by invoice/POS/PO flows.

6) Operational Modules

Jobcards

- CRUD works.
- Status changes work.
- Convert quote -> jobcard works.
- Team/user assignment works.

Quotes

- CRUD works.
- Status changes via status controls.
- Convert quote -> invoice works.
- Convert quote -> jobcard works.
- PDF download and email flows work.

Invoices

- CRUD works.
- Invoice title optional (blank falls back to generated invoice number).
- Due date auto-calculates from customer terms.
- Payments add/remove works.
- Status bar and transitions work.
- PDF download + print (inline tab) + email work.

Credit Notes

- CRUD works.
- Top status bar works (quote-style status buttons).
- Link to invoice works.
- Refund payments (optional) add/remove works.
- Remaining credit recalculates correctly.
- Status auto-updates when fully refunded.

Purchase Orders

- CRUD works.
- Supplier + line items + totals work.
- Status transitions (draft/sent/received/cancelled) work.
- PO numbering matches configured prefix/next number.

POS (Point of Sale)

- POS visibility obeys company setting + permissions.
- POS button appears on Dashboard + Invoices list only when allowed.
- Default sales customer auto-selected.
- Customer type-to-search works.
- Invoice details/line items left, payment section right.
- Payment method uses buttons (Cash/Card/EFT), no default selected.
- Complete button disabled until all required fields are valid:
 - Customer selected
 - Payment method selected
 - At least one valid line item
- Cash tender/change calculation works.
- Successful sale opens invoice PDF in new tab and resets POS form.

Stock Movements / Timesheet / Teams / Reports / Audit Logs / Backups

- Each module loads without errors.
 - CRUD/filters/pagination/export flows work where applicable.
 - Report templates save/edit/delete/export work.
 - Backup creation/list/download/restore flow (if enabled) works.
 - Audit log entries recorded for critical actions.
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7) Administration & Settings

- Company settings CRUD works.
 - Enable/disable POS per company works.
 - Module visibility settings work.
 - Document numbering updates apply to:
 - Invoices
 - Quotes
 - Jobcards
 - Credit notes
 - Purchase orders
 - Database upgrade action works and logs output.
 - PDF templates CRUD/upload works.
 - SMS settings CRUD works.
 - WhatsApp settings CRUD works.
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8) Integrations - Xero (Critical)

8.1 Connectivity & OAuth

- OAuth authorize/callback/tenant selection works.
- Disconnect works and revokes effective access.
- Reconnect/switch tenant/company works.

8.2 Outbound Sync (JCO -> Xero)

- Customers
- Products
- Suppliers
- Quotes
- Invoices
- Payments (invoice payments)
- Credit notes
- Credit note refund payments
- Purchase orders

8.3 Inbound Sync (Xero -> JCO)

- Customers
- Products
- Suppliers
- Quotes

- Invoices
- Payments (invoice + credit note linked)
- Credit notes (+ allocations)
- Purchase orders (+ line items)
- Tax rates
- Bank accounts
- Chart of accounts

8.4 Sync Conflict & Loop Prevention

- Updated-at conflict logic behaves correctly (newer side wins where expected).
- No infinite update loops between systems.
- No unnecessary writes when payload unchanged.
- Idempotency checks prevent duplicate records/payments.
- Scheduler/manual command overlap does not duplicate work.

8.5 Known Edge Cases (must pass)

- Paid invoice update does not fail due to forced `AUTHORISED` status.
- Paid JCO invoice exports payment in same run (not delayed to next run).
- Quote update handles Xero status restrictions safely.
- Credit note update handles non-editable allocated/applied credit notes.
- Purchase order update handles status-change restrictions safely.
- Purchase order sync handles Xero account code validity constraints safely.
- Initial/backfill sync progresses and does not stall.

8.6 Operational & Observability

- Sync summary counters make sense (created/updated/skipped/error).
- Error logs contain enough context (entity id/number, reason, response snippets).
- Long-running sync jobs eventually complete and release process.
- Xero rate limit behavior is controlled (throttle/delay/retry where expected).

9) Licensing & License API

9.1 Instance Licensing (non-licensing instances)

- Invalid/missing license redirects to Administration License page.
- License validation against server works with URL matching.
- Version reporting to license server works (uses app version from `package.json`).
- HMAC-secured license API calls validate correctly.
- User type limits enforced on create/edit:
 - Standard limit
 - Limited limit
- Over-limit restriction behavior:
 - Access restricted to Users module until compliant
 - Professional warning message shown

9.2 Licensing Instance Mode (`IS_LICENSING_INSTANCE=true`)

- License CRUD works.
- Deployment actions work:
 - Deploy
 - Upgrade
 - Force SSL
- cPanel deployment path works end-to-end (if enabled).
- Docker deployment path works end-to-end (if enabled):
 - Host selection
 - Host connection test
 - Per-domain nginx config creation
 - Multi-host selection behavior

10) Notifications & Messaging

- Invoice email send works with expected templates.
 - Quote email send works.
 - Payment confirmation/reminder flows work (if enabled).
 - SMS messages send with correct variables and formatting.
 - WhatsApp messages send with correct template/variables.
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11) Data Integrity Checks

- Totals consistency:
 - Line totals = subtotal logic
 - Tax totals
 - Discount handling
 - Grand totals
 - Invoice `remaining_balance` reflects payments + credit notes.
 - Credit note `remaining_credit` reflects refund payments.
 - Number sequences increment correctly and do not collide.
 - Referential integrity: deleted/updated records do not orphan critical data.
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12) Security & Hardening

- Role/permission bypass attempts are blocked.
 - Sensitive endpoints require auth and expected middleware.
 - License API rejects missing/invalid HMAC headers.
 - CSRF protection works for web forms.
 - File uploads validate type/size.
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13) Performance & Reliability

- Key list pages load within acceptable threshold.
 - Large pagination pages remain responsive.
 - Bulk sync operations finish within expected window.
 - No memory/CPU runaway for scheduled sync commands.
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14) Final Release Gate

- All critical/high issues closed.
 - Medium issues triaged with owners/dates.
 - Rollback plan verified.
 - Monitoring/log alerts prepared for release window.
 - Stakeholder sign-off complete.
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15) Sign-Off

- QA Sign-off: _____
- Product Sign-off: _____
- Technical Sign-off: _____
- Go-live approved: Yes / No