Inphora Lending System - Functionality Checklist

1. Authentication & User Management

Login & Authentication

- Successfully log in with valid credentials
- Verify error message on incorrect password
- Verify error message on non-existent email
- Check "Remember Me" functionality
- Verify logout functionality
- Test session persistence across page refreshes
- Verify auto-logout after session timeout

User Management

- View list of system users
- Add new user with all required fields
- Assign user roles (Admin, Loan Officer, Accountant, etc.)
- Edit existing user information
- Delete user account
- Verify role-based access control
- Test password reset functionality

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2. Client Management

Client Registration

- Add new client with all required fields (Name, ID, Phone, etc.)
- Upload KYC documentation
- Assign client to branch
- Assign client to customer group
- Verify ID number uniqueness validation

- Verify phone number format validation
- Test M-Pesa integration fields

Client Operations

- View complete client list
- Search clients by name, phone, or ID number
- Filter clients by branch
- Filter clients by customer group
- Edit existing client information
- Delete client (with confirmation)
- View client loan history
- Refresh client data

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3. Loan Management

Loan Products

- Create new loan product with interest rate and term limits
- View all loan products
- Verify min/max amount constraints
- Verify min/max period constraints
- Test product description field

Loan Application (Multi-Step Process)

Step 1: Client & Product Selection

- Select client from dropdown
- Select loan product
- Enter loan amount within product limits
- Set loan duration in months
- Choose repayment frequency (Daily/Weekly/Monthly)

- Set start date

Step 2: Guarantors

- Add guarantor with complete information
- Add multiple guarantors
- Remove guarantor
- Verify required fields (Name, Phone, ID Number)
- Navigate back to step 1 and verify data persistence

Step 3: Collateral & Referees

- Add collateral item with estimated value
- Add multiple collateral items
- Remove collateral item
- Add character referee
- Add multiple referees
- Navigate back to previous steps and verify data persistence

Step 4: Financial Analysis

- Enter daily sales amount
- Enter monthly sales amount
- Enter cost of sales
- Enter personal expenses
- Enter other income
- Verify Net Income calculation is correct
- Submit complete loan application
- Verify success message and redirect to loans list

Loan Review & Management

- View all loan applications
- View loans by status (Pending, Approved, Active, Rejected, Closed)

- Search loans by client name or loan ID
- Open loan details modal
- Review financial analysis in loan details
- View collateral list
- View referee information
- View guarantor information
- View repayment schedule

Loan Approval Workflow

- Approve pending loan application
- Reject loan application with reason
- Verify status updates correctly
- Verify approval notifications

Loan Disbursement

- Disburse approved loan via M-Pesa
- Verify M-Pesa phone number
- Enter disbursement reference
- Verify disbursement amount matches loan amount
- Confirm disbursement success message
- Verify loan status changes to "Active"

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4. Repayment Management

Recording Repayments

- Select loan for repayment
- Enter repayment amount
- Choose payment method (Cash, M-Pesa, Bank Transfer)
- Enter payment reference number

- **Record partial repayment**
- **Record full repayment**
- **Verify outstanding balance calculation**
- **Verify repayment appears in loan history**

Repayment Sc hedule

- **View repayment schedule for active loan**
- **Verify installment amounts are correct**
- **Verify due dates are calculated correctly**
- **Check principal vs interest breakdown**
- **Verify running balance calculation**

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5. Financial Management

Expenses

- **Add new expense with category**
- **Enter expense description**
- **Enter expense amount**
- **Set expense date**
- **View all expenses**
- **Filter expenses by date range**
- **Filter expenses by category**
- **Calculate monthly expense total**
- **Verify expense appears in reports**

Savings/LGF Module *(if implemented)*

- **Create savings account for client**
- **Record deposit transaction**
- **Record withdrawal transaction**

- **View savings account balance**
- **View account transaction history**
- **Calculate interest accrued**

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6. Reports & Analytics

Dashboard

- **Verify "Total Loans Disbursed" displays correct amount**
- **Verify "Active Clients" count is accurate**
- **Verify "Total Revenue" calculation**
- **Verify "Active Loans" count**
- **Check "Loan Trends" chart displays correctly**
- **Check "Expenses Overview" chart displays correctly**
- **Verify all metrics update in real-time**
- **Test refresh functionality**

Financial Reports

- **Generate Profit & Loss report**
- **Verify total revenue calculation**
- **Verify total expenses calculation**
- **Verify net profit/loss calculation**
- **Export report to PDF/Excel**

Portfolio at Risk (PAR) Report

- **View loans overdue by 30+ days**
- **View loans overdue by 60+ days**
- **View loans overdue by 90+ days**
- **Calculate PAR ratio**
- **Identify high-risk clients**

Client Reports

- **View client registration trends**
- **Filter clients by registration date**
- **Export client list**

Loan Reports

- **View loan disbursement report**
- **View loan repayment report**
- **Calculate collection rate**
- **Export loan data**

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7. Branch Management

Branch Operations

- **Create new branch with name and location**
- **View all branches**
- **Edit branch information**
- **Delete branch (verify no associated clients remain)**
- **Assign clients to branch**

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8. Customer Groups

Group Management

- **Create new customer group**
- **Add group description**
- **View all customer groups**
- **Edit group information**
- **Delete group (with confirmation)**
- **Assign clients to group**

- View clients in each group

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9. M-Pesa Integration

M-Pesa Configuration

- Configure M-Pesa credentials (Consumer Key, Consumer Secret)
- Set business short code
- Set passkey
- Test connection to Daraja API
- Verify sandbox vs production environment setting

M-Pesa Transactions

- View M-Pesa transaction history
- Link M-Pesa transaction to loan repayment
- Link M-Pesa transaction to savings deposit
- Check M-Pesa account balance
- Verify transaction reconciliation
- View unmatched transactions
- Test callback URL handling

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10. System Settings

Organization Configuration

- Update organization name
- Upload organization logo
- Update contact information (Phone, Email, Address)
- Set brand colors
- Configure currency and locale
- Set timezone

Branding

- **Change primary brand color**
- **Change secondary brand color**
- **Verify logo appears in all pages**
- **Verify organization name updates across system**

SMS Gateway Configuration

- **Configure SMS provider credentials**
- **Test SMS sending**
- **Customize loan approval message template**
- **Customize loan disbursement message template**
- **Customize repayment reminder message template**
- **Verify variable substitution in templates (e.g., {client_name}, {amount})**

Email Configuration

- **Set up SMTP server**
- **Configure sender email address**
- **Test email sending**
- **Configure email templates**

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11. Audit Logs

Audit Trail

- **View all system audit logs**
- **Filter logs by action type (Login, Create, Update, Delete, Disburse)**
- **Filter logs by user**
- **Filter logs by date range**
- **View log details (Who, What, When, Where)**
- **Verify sensitive actions are logged (disbursements, approvals, deletions)**

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12. UI/UX & Accessibility

Theme & Display

- Toggle between light and dark mode
- Verify all pages render correctly in both themes
- Test responsive design on mobile devices
- Test responsive design on tablet devices
- Verify all icons display correctly
- Check for any UI glitches or misalignments

Navigation

- Test sidebar navigation to all pages
- Verify breadcrumb navigation (if applicable)
- Test back button functionality
- Verify page titles update correctly

Forms & Validation

- Test required field validations
- Test email format validation
- Test phone number format validation
- Test numeric field validations
- Test date picker functionality
- Verify error messages display correctly
- Verify success messages display correctly

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13. Performance & Security

Performance

- Verify dashboard loads within 3 seconds

- Test pagination on large data sets
- Test search performance with 100+ clients
- Verify no memory leaks on prolonged usage
- Check browser console for JavaScript errors

Security

- Verify passwords are masked in forms
- Test SQL injection prevention
- Test XSS vulnerability prevention
- Verify API endpoints require authentication
- Test unauthorized access to protected routes
- Verify sensitive data is encrypted
- Test CORS configuration

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14. Data Integrity

Database Operations

- Verify loan calculations are accurate
- Verify interest calculation is correct
- Verify outstanding balance updates correctly
- Test data consistency across related tables
- Verify cascading deletes work correctly
- Test database backup functionality
- Test database restore functionality

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15. Public Features *(if implemented)*

Public Registration

- Access public registration page

- Register new organization
- Verify email confirmation
- Verify admin approval workflow
- Test payment integration (if required)
- Verify new tenant provisioning

Testing Summary

Total Test Cases: ~250

Priority Levels:

- 🔴 Critical: Authentication, Loan Disbursement, Repayment Processing, M-Pesa Integration
- 🟡 High: Client Management, Loan Application, Reports, Settings
- 🟢 Medium: Branches, Customer Groups, Audit Logs, UI/UX
- 🔵 Low: Dark Mode, Export Functions, Advanced Filters

Recommended Testing Sequence:

1. Authentication & User Management
2. Client Management (create sample clients)
3. Loan Products (create sample products)
4. Complete Loan Application Flow (end-to-end)
5. Loan Approval & Disbursement
6. Repayment Processing
7. M-Pesa Integration Testing
8. Reports & Dashboard
9. Settings & Configuration
10. Audit Logs Verification