TEST PLAN DOCUMENT

FOR INCOME & EXPENSE MANAGEMENT

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# **INTRODUCTION**

* This System Test Plan describes the structured process for validating the Income & Expense Management Web Application developed for ASAD TECH.
* The test plan is designed to ensure the application is robust, user-friendly and secure so that it can meet all specified functional and non-functional requirements for tracking income and .

# 1.1 Purpose

* To verify that all features and modules of the web application work as intended.
* It will be a reliable tool for ASAD TECH stakeholders to manage financial transactions securely and efficiently.

# 1.2 Objectives

* Confirm all listed functionalities operate correctly under expected and edge-case scenarios
* Validate secure handling of user data and session management
* Ensure the application's usability, accessibility, and performance across supported platforms
* Deliver a defect-free solution ready for deployment to ASAD TECH users

# **SCOPE**

# 2.1 In- Scope

* Login & Authentication: Secure login for authorized users with credentials validation
* Income Management: Add, edit, delete income entries
* Expense Management: Add, edit, delete expense entries
* Dashboard Summary: Real-time display of income, expense, and balance summaries
* Transaction History: Listing and filtering of transaction records
* Report Generation: Production of monthly/annual summaries
* Export Functionality: Exporting reports to PDF and CSV formats
* Session Data Handling: Data is stored client-side and cleared on logout for privacy
* UI Accessibility: Compliance with basic accessibility standards

# 2.2 Out-of-Scope

* Integration with third-party APIs or banking services
* Persistent backend storage (the application is client-side only)
* Advanced analytics and forecasting
* Extensive performance testing under high concurrency
* Non-critical modules not required by ASAD TECH

# **3. TEST ITEMS**

* The following modules will be tested:
* Login & Authentication
* Add/Edit/Delete Income
* Add/Edit/Delete Expense
* Dashboard Summary
* Transaction History
* Report Generation (monthly/annual summaries)
* Export Functionality
* Session Data Handling & Logout
* UI Accessibility and Responsiveness

# **4. FEATURES TO BE TESTED**

* User can log in with valid credentials; denied with invalid ones
* Successful addition, editing, and deletion of income and expense records
* Dashboard displays accurate totals and balances
* Transaction history table correctly lists, filters, and color-codes entries
* Report generation produces accurate monthly/annual summaries
* Export functionality correctly creates PDF and CSV files
* Data is cleared upon user logout or browser refresh
* UI is responsive and accessible on desktop, tablet, and mobile devices
* Error messages are displayed for invalid input

# 4.1 Features Not to be Tested

* Unimplemented or future modules (e.g., integration with payment gateways)
* Backend validation (since all operations are client-side)
* In-depth UI responsiveness (if not part of the minimum requirement)
* Performance under stress or high-traffic conditions
* Third-party API integrations

# **5. TEST STRATEGY**

# 5.1 Types of Testing

* Unit Testing - Validate individual functions (e.g., calculation logic, data handling)
* Integration Testing - Ensure modules interact correctly (e.g., dashboard updates after adding a transaction)
* System Testing -Test the complete application in an environment simulating real usage
* User Acceptance Testing (UAT) - ASAD TECH stakeholders verify the system meets business needs

# 5.2 Approach

* Manual Testing: All features will be manually exercised using test cases
* Automated Testing: Optional for regression and repetitive tests (e.g., form validation)
* Tools: Chrome, Firefox, Selenium (if automation is possible), Postman (if any APIs are present)

# **6. TEST DELIVERABLES**

* System Test Plan Document
* Detailed Test Cases (manual and automated, if any)
* Test Data Sets (sample income/expense transactions)
* Test Scripts (for automated testing)
* Bug/Defect Reports (logged in GitHub Issues)
* Test Summary Report (with pass/fail statistics and recommendations)

# **7. ENTRY AND EXIT CRITERIA**

# 7.1 Entry Criteria

* All application modules completed and deployed
* Unit tests passed
* Test environment (devices, browsers) ready
* Test cases reviewed and approved

# 7.2 Exit Criteria

* All planned test cases executed
* All critical/high-severity defects resolved or deferred with client agreement
* Test summary report delivered
* Supervisor and client sign-off received

# **8. SUSPENSION CRITERIA**

* Testing will be suspended if:
* The application crashes or blocks further testing
* Major defects are discovered that prevent essential functionality
* Required test environment becomes unavailable
* Missing or incomplete requirements are identified

# **9. SCHEDULE**

|  |  |  |  |
| --- | --- | --- | --- |
| TEST PHASE | START DATE | END DATE | RESPONSIBLE PARTY |
| UNIT TESTING | 2025/07/18 | 2025/07/20 | DEVELOPER |
| SYSTEM TESTING | 2025/07/21 | 2025/07/23 | TEST LEAD, TESTER |
| USER ACCEPTANCE | 2025/07/24 | 2025/07/26 | CLIENT SUPERVISOR |

# **10. ROLES AND RESPONSIBILITIES**

|  |  |  |
| --- | --- | --- |
| ROLE | NAME | RESPONSIBILITY |
| TEST LEAD | Timothy Kaburu | Plan, execute, report |
| TESTER | ASAD TECH ADMIN | Execute test cases, log bugs |
| DEVELOPER | GGs | Fix defects, support testers |
| SUPERVISOR | JAMES TRAMFORD | Review and approve testing |
| CLIENT | PHIL JADON(Owner) | UAT, final approval |

# **11.TEST ENVIRONMENT**

* Devices: Laptop (Windows), mobile (Android, iOS)
* Browsers: Chrome, Firefox, Edge, Safari
* Tools: HTML Compiler for building and testing HTML files; Chrome, Firefox for browser validation
* Deployment: GitHub Pages live URL for public access

# **12. RISKS AND MITIGATION**

| **Risk** | **Impact** | **Mitigation** |
| --- | --- | --- |
| Delayed delivery | High | Buffer days and early testing start |
| Missing requirements | Medium | Frequent reviews, client check-ins |
| Unstable test environment | Medium | Backup devices and browsers |
| Data not cleared on logout | High | Additional regression and session tests |
| Accessibility issues | Medium | Use accessibility checklists and tools |
| Incomplete documentation | Low | Assign documentation tasks to team members |

# **13. TEST CASES OVERVIEW**

| **Test Case ID** | **Description** | **Steps** | **Expected Result** | **Status (Pass/Fail)** |
| --- | --- | --- | --- | --- |
| TC-01 | Login with valid credentials | Enter correct username/password; login | Dashboard loads |  |
| TC-02 | Login with invalid credentials | Enter incorrect username/password; login | Error message shown |  |
| TC-03 | Add income entry | Login; add income details; submit | Entry appears, dashboard updates |  |
| TC-04 | Add expense entry | Login; add expense details; submit | Entry appears, dashboard updates |  |
| TC-05 | Edit an income entry | Select income entry; edit details; save | Entry updates in history/dashboard |  |
| TC-06 | Edit an expense entry | Select expense entry; edit details; save | Entry updates in history/dashboard |  |
| TC-07 | Delete an income entry | Select income entry; delete; confirm | Entry removed from history/dashboard |  |
| TC-08 | Delete an expense entry | Select expense entry; delete; confirm | Entry removed from history/dashboard |  |
| TC-09 | Input invalid data (empty, non-numeric, negative) | Try to add/edit entry with invalid data | Error message shown |  |
| TC-10 | View transaction history | Add entries; view history table | Correct data displayed |  |
| TC-11 | Generate monthly report | Add transactions; generate report | Accurate summary produced |  |
| TC-12 | Export report as PDF | Generate report; export as PDF | PDF file downloaded, data correct |  |
| TC-13 | Export report as CSV | Generate report; export as CSV | CSV file downloaded, data correct |  |
| TC-14 | Logout | Login; add data; logout | Data cleared, back to login screen |  |
| TC-15 | Refresh page while logged in | Login; add data; refresh browser | Data cleared, back to login screen |  |
| TC-16 | Responsive layout on mobile/tablet | Open app on mobile/tablet browsers | Layout adapts, no broken UI |  |
| TC-17 | Browser compatibility | Open app on Chrome, Firefox, Edge, Safari | Consistent functionality/UI |  |
| TC-18 | Accessibility: keyboard navigation | Tab through UI elements | All elements accessible, focus visible |  |
| TC-19 | Accessibility: contrast and alt text | Inspect UI; check images | Sufficient contrast, images have alt text |  |
| TC-20 | Dashboard summary accuracy | Add/edit/delete entries | Income, expense, balance calculate correctly |  |
| TC-21 | Data privacy | Add entries; logout/refresh | No data persists beyond session |  |

# **14. APPROVALS**

* The following approvals are required for final sign-off and deployment;
* QA/Test Lead
* Project Manager/Supervisor
* Client/Stakeholder (ASAD TECH)