ENSEK Automation Candidate Test – Detailed Test Plan

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# 1. Introduction

This Test Plan outlines the strategy and scope for testing the ENSEK candidate test system. The application allows users to log in and perform energy trading transactions (buy/sell). The goal is to validate all functional flows, UI responsiveness, usability, and application reliability using a structured test process.

# 2. Objectives

- Ensure the application allows users to perform login operations reliably

- Validate the energy trading functionality (buy and sell flows)

- Confirm system stability under user interactions

- Identify and report UI, functional, and compatibility issues

- Verify link routing and content display consistency across pages

# 3. Application Overview - Login Page with hardcoded user authentication - Dashboard listing current meter readings - 'Buy Energy' and 'Sell Energy' modules - Navigation elements: Home, About, Contact

# 4. Scope

* In Scope:
* Login functionality
* Navigation between pages (Home, About, Contact)
* Energy purchase and sell processes
* Error and validation messages
* UI layout and responsiveness
* Out of Scope:
* Backend integration or database persistence
* Payment gateway testing (not applicable)
* External API calls or integrations

# 5. Test Strategy

Manual Testing using a black-box approach  
Functional Testing for each user action  
UI Testing for consistency, responsiveness, and layout  
Exploratory Testing to uncover edge cases and usability flaws  
Cross-Browser Testing on Chrome, Firefox, Safari, and Edge

# 6. Test Types

|  |  |
| --- | --- |
| Test Type | Description |
| Functional Testing | Validate login, buy/sell flows, navigation, form submissions |
| UI/UX Testing | Ensure layout alignment, font consistency, responsiveness |
| Input Validation | Check mandatory fields, input constraints, error messages |
| Compatibility | Check consistent behavior across browsers/devices |
| Navigation Testing | Ensure all links and buttons lead to the intended destinations |

# 7. Test Environment

|  |  |
| --- | --- |
| URL | https://ensekautomationcandidatetest.azurewebsites.net/ |
| Browsers | Chrome, Firefox, Edge, Safari |
| Devices | Desktop (Windows, macOS), Mobile (iOS, Android) |
| Tools | Chrome DevTools, Excel, Postman (if API is added later) |

# 8. Entry & Exit Criteria

* Entry Criteria:
* Application is accessible via public URL
* Functional specification is observed from UI
* Test cases are created and reviewed
* Exit Criteria:
* All functional test cases executed
* All critical bugs resolved or documented
* Test summary prepared and reviewed

# 9. Test Deliverables

* Test Plan (this document)
* Test Case Suite (Excel or documented format)
* Bug/Defect Report
* Test Summary Report

# 10. Risks and Mitigation

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| --- | --- | --- |
| Risk | Impact | Mitigation |
| Lack of backend visibility | Incomplete end-to-end test coverage | Focus on front-end validation |
| Hardcoded credentials | Cannot test registration/signup | Use given login mechanism consistently |
| Limited application features | Narrow scope of test cases | Prioritize usability and UI robustness |

# 11. Test Schedule

|  |  |
| --- | --- |
| Activity | Timeframe |
| Test Planning | Day 1 |
| Test Case Design | Day 2 |
| Test Execution | Day 3 – Day 4 |
| Defect Retesting | Day 5 |
| Reporting & Sign-off | Day 6 |

# 12. Functional Test case

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test Case ID** | **Test Case Description** | **Steps** | **Expected Result** | **Priority** |
| TC\_FT\_01 | |  | | --- | |  |  |  | | --- | | User Registration | | Navigate to the 'Register' page → Fill in all required fields with valid data → Submit the form | User account is created successfully; confirmation message is displayed | High |
| TC\_FT\_02 | User Login | Navigate to the 'Log in' page → Enter valid credentials → Submit the form | User is logged in and redirected to the dashboard or homepage | High |
| TC\_FT\_03 | Buy Energy Flow | Log in → Click on 'Buy energy' → Select energy type and quantity → Confirm purchase | Energy purchase is processed; confirmation message is displayed | High |
| TC\_FT\_04 | Sell Energy Flow | Log in → Click on 'Sell energy' → Enter energy details → Submit the form | Energy sale is processed; confirmation message is displayed | High |
| TC\_FT\_05 | Navigation to 'About' Page | Click on the 'About' link in the navigation menu | 'About' page is displayed with relevant company information | Medium |
| TC\_FT\_06 | Navigation to 'Contact' Page | Click on the 'Contact' link in the navigation menu | 'Contact' page is displayed with contact details or a contact form | Medium |

# 13. Resources

* - 1 QA Tester (Manual)
* - Laptop or Desktop with multi-browser setup
* - Test documentation tools (Word, Excel)