# Contact List App - API Testing Project

## Test Plan

Version: 1

Date: 29 October 2025

## 1. Introduction

This document outlines the comprehensive testing strategy for the Contact List App API project. It defines the testing objectives, scope, team responsibilities, deliverables, and methodologies employed to verify that all APIs operate in accordance with defined specifications—ensuring reliability, secure authorization, and optimal performance.

## 2. Scope

### 2.1 In Scope

* Testing of the following RESTful APIs using Postman:
* Contacts APIs:
* POST – Add Contact
* GET – Retrieve Contacts List
* GET – Retrieve Contact by ID
* PUT – Update Contact (Full)
* PATCH – Update Contact (Partial)
* DELETE – Delete Contact
* Users APIs:
* POST – Add User
* GET – Retrieve User Profile
* PATCH – Update User
* POST – Log Out User
* POST – Log In User
* DELETE – Delete User

### 2.2 Out of Scope

* Any functionality not defined in the Software Requirements Specification (SRS) document is considered out of scope. Examples include detailed UI/UX testing such as design evaluation, responsiveness, and A/B testing.

## 3. Test Schedule

|  |  |  |
| --- | --- | --- |
| **Feature** | **Duration** | **Assigned To** |
| Set up environment and headers | 1 Hour | Mohammad Badawi |
| Add Contact [Contacts] | 4 Hours | Mohammad Badawi |
| Get Contact List [Contacts] | 4 Hours | Mohammad Badawi |
| Get Contact Data [Contacts] | 4 Hours | Mohammad Badawi |
| Completely Update a Contact [Contacts] | 4 Hours | Mohammad Badawi |
| Partially Update a Contact [Contacts] | 4 Hours | Mohammad Badawi |
| Delete a Contact [Contacts] | 4 Hours | Mohammad Badawi |
| Add User [Users] | 4 Hours | Mohammad Badawi |
| Get User Profile [Users] | 4 Hours | Mohammad Badawi |
| Partially Update User Data [Users] | 4 Hours | Mohammad Badawi |
| Log Out User [Users] | 4 Hours | Mohammad Badawi |
| Log in User [Users] | 4 Hours | Mohammad Badawi |
| Delete User [Users] | 4 Hours | Mohammad Badawi |

## 4. Test Approach

The testing process follows an Agile Scrum methodology with structured phases including Sprint Planning, Daily Standups, and Sprint Reviews. Testing focuses on ensuring API functionality, performance, and security.

* Test Types:
* Functional Testing (Positive and Negative Scenarios)
* Authentication and Authorization Validation
* Status Code Verification
* Data Validation (using environment variables)
* Non-Functional Testing (Performance)
* UI-to-API Behavior Mapping
* Tools Used:
* Postman (Test scripts, environment, collection runner)
* Trello (Task management)
* Excel (Test case design)

## 5. Suspension Criteria and Resumption Requirements

* Testing activities may be suspended if any of the following occur:
* API server downtime
* Missing or invalid authentication tokens
* Major blocker bugs preventing test execution
* Incomplete or missing API documentation
* Testing will resume once:
* Blockers are resolved
* The test environment is restored
* All required data and documentation are provided

## 6. Milestones / Deliverables

### 6.1 Before Testing

* Trello Board with all tasks and cards
* API Test Plan
* Test Case Design Sheets (Excel)

### 6.2 During Testing

* Postman Collection (organized by folders)
* Test Scripts and Assertions
* Bug Reports and Console Logs
* Test Data (Environment Variables)
* Requirement Traceability Matrix (RTM)

### 6.3 After Testing

* Finalized Postman Collection
* Test Summary Report
* Sprint Demo and Project Presentation

## 7. Test Support Activities

While UI testing was not a primary focus of this project, limited UI exploration was conducted to map user interactions to corresponding API calls. This approach enhanced test coverage and ensured accurate validation of API responses.

* Explored UI Actions:
* Register
* Login
* View Contacts
* Edit/Delete Contacts
* Update Contacts
* Add New Contact

## 8. Responsibilities

|  |  |  |
| --- | --- | --- |
| **Role** | **Staff Member** | **Responsibilities** |
| Project Manager | Mohammed Badawi | Acts as the primary liaison between development and QA teams. Oversees project scheduling and ensures overall success. |
| QA Lead | Mohammed Badawi | Coordinates test planning, monitors progress, and manages QA team communication and issue resolution. |
| QA Team | Mohammed Badawi | Designs, executes, and reviews test cases; prepares RTM; performs defect tracking, retesting, regression testing, and supports documentation. |

## 9. Test Environment

|  |  |
| --- | --- |
| **Component** | **Specification** |
| OS | Windows 11 |
| Browsers | Chrome |
| API Platform | Postman |
| Task Board | Trello |
| Documentation | Excel, Word, Google Sheet |