

# 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