**Test Plan for CRUD Operations and Authentication**

**Project Name:** Basic Web Application  
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**Version:** 1.0

**1. Objective**

To ensure the correctness and stability of the core functionalities of the application including:

* Login (valid and invalid credentials)
* Create, Edit, and Delete actions for a data item (city)

**2. Scope**

This test plan covers:

* Authentication process
* CRUD operations for a specific resource (e.g., city)

**3. Features to Be Tested**

| **Feature** | **Description** |
| --- | --- |
| Login | Verify system behavior with valid and invalid credentials |
| Create | Verify the creation of a new item (city) |
| Edit | Verify editing/updating an existing item (city) |
| Delete | Verify deletion and post-deletion behavior |

**4. Test Coverage Areas**

* **Positive Testing:**
  + Successful login with correct credentials
  + Successful creation, editing, and deletion of an item
* **Negative Testing:**
  + Login with incorrect credentials
  + Attempting to delete a non-existent item
* **UI/UX:**
  + Feedback messages (e.g., “Login failed”, “Item saved successfully”)

**5. Tools Used**

| **Tool** | **Purpose** | **Reason** |
| --- | --- | --- |
| **Postman** | API Testing | Easy to validate API requests/responses |
| **Cypress** | UI Testing | Ideal for testing modern React applications |

**6. Test Data**

* **Sample Item Data:**
  + See the data file(s) in cypress project under **fixtures folder**

**7. How to Run the Tests**

**Automation**

npm install

npm run test

Use Postman to test API endpoints manually or automate with Postman Collections.

**8. Exit Criteria**

* All critical test cases passed
* No high-priority bugs openTop of FormBottom of Form