### **Test Strategy: Registration Form**

#### 1. Overview:

The test strategy for the registration form aims to ensure thorough testing of all mandatory fields and functionalities to guarantee a seamless user registration process.

#### 2. Scope:

The test strategy covers testing of the registration form's input fields (Name, Phone Number, Email Address, User ID, Password), as well as the submission, cancellation, and clearing functionalities.

## 3. Approach:

- a. Requirements Analysis:
- Review the requirements document to understand the expected behavior of each field and button.
  - Identify all mandatory fields and their respective validation criteria.

### b. Test Design:

- Design test cases covering positive, negative, and boundary scenarios for each field and functionality.
  - Prioritize test cases based on criticality and impact on user experience.

#### c. Test Environment Setup:

- Establish a test environment that closely mimics the production environment, including necessary hardware, software, and network configurations.
  - Ensure compatibility across different browsers and devices to validate responsiveness.

# d. Test Data Preparation:

- Create test data sets covering various combinations of valid and invalid inputs for each field.
- Include edge cases and boundary values to ensure comprehensive testing coverage.

#### e. Manual Testing:

- Perform manual testing based on the designed test cases.
- Validate each input field's behavior against its defined requirements and conditions.
- Verify the functionality of buttons (Submit, Cancel, Clear) under different scenarios.

### f. Automated Testing:

- Implement automation scripts for repetitive and regression testing tasks.
- Automate tests for input field validations, button functionalities, and form submission.

## g. Accessibility Testing:

- Ensure the registration form complies with accessibility standards, allowing users with disabilities to interact with it effectively.

- Verify keyboard navigation, screen reader compatibility, and contrast ratios for visually impaired users.

## h. Performance Testing (Optional):

- Conduct performance testing to evaluate the form's response time and server load handling capabilities.
- Analyze the system's behavior under different user load scenarios to identify potential bottlenecks.

#### i. Security Testing:

- Perform security testing to identify vulnerabilities such as SQL injection, cross-site scripting (XSS), and data breaches.
- Validate the encryption of sensitive information like passwords during transmission and storage.

## j. Usability Testing:

- Gather feedback from users or stakeholders to evaluate the registration form's ease of use and intuitiveness.
  - Identify any areas of improvement to enhance the overall user experience.

## 4. Reporting:

- Document all test results, including passed tests, failed tests, and any defects found during testing.
  - Provide detailed information on reproducible steps, severity, and impact of identified issues.
  - Collaborate with development teams to prioritize and address reported defects promptly.

#### 5. Conclusion:

The test strategy outlined above aims to ensure the registration form meets functional requirements, security standards, and user expectations. By following this strategy, we aim to deliver a robust and user-friendly registration process that enhances the overall user experience.