Test Strategy for To-Do List Web Application

1. Test Strategy

Objective:
Ensure the To-Do list web application functions correctly, is user-friendly, and handles edge cases effectively.

Scope:
- Functional testing of core features: Add, Edit, Delete, Mark Complete
- UI responsiveness across devices
- Input validation

Test Levels (assume I created the Todo list from scratch):
- Unit Testing -> Test the whole functions separately
- Unit Integration Testing -> Test the interactions between unit functions
- System Integration Testing - > Test the system (frontend) with system (backend)
- System Testing -> Test system as a whole

Test Types:
- Functional Testing
- UI Testing
- Boundary Testing

Test Environment:
- Browsers: Chrome, Firefox, Edge (latest versions)
- Platforms: Windows, macOS

Tools:
Manual browser-based testing, Developer Tools

2. Test Cases

2.1 Functional Testing

TC ID	Test Case Title	Steps	Expected Result
TC_F1	Add New Task	1. Open app 2. Enter title 3. Click 'Add'	Task appears in the list
TC_F2	Delete Task	1. Add a task 2. Click 'Delete'	Task removed from list
TC_F3	Mark Task Complete	1. Add a task 2. Click 'Complete'	Task marked as complete visually
TC_F4	Edit Task	1. Add a task 2. Click 'Edit' 3. Change title 4. Save	Task title updated
TC_F5	Add Empty Task	1. Open app 2. Leave title empty 3. Click 'Add'	Error shown; task not added

2.2 UI Testing

TC ID	Test Case Title	Steps	Expected Result
TC_UI1	Button Alignment	Observe alignment of Add/Edit/Delete buttons	Buttons aligned properly
TC_UI2	Mobile Responsiveness	Open on a mobile screen	Responsive layout without overlapping elements
TC_UI3	Font & Theme	Load UI and observe text & color	Text readable, consistent colors, theme applied
TC_UI4	Button Hover Effect	Hover over buttons	Buttons display hover effect (e.g., highlight color)

2.3 Boundary Testing

TC ID	Test Case Title	Steps	Expected Result
TC_B1	Max Length Task Title	Input exactly 255 characters and click 'Add'	Task added successfully
TC_B2	Exceed Max Task Title	Input more than 255 characters and click 'Add'	Error displayed; task not added
TC_B3	Special Characters	Input task with !@#$%^&*()	Task added and displayed correctly
TC_B4	Whitespace-Only Input	Input only spaces and click 'Add'	Error shown; task not added

3. Bug Report

Bug Report Table

Bug ID	Title	Description	Environment	Expected Result	Actual Result	Severity	Status
BUG_001	Cannot add task with max-length input	When entering exactly 255 characters and clicking 'Add', nothing happens.	Chrome v124, Windows 10	Task should be added to the list	Task not added	Medium	Open
BUG_002	Mobile view cuts off Delete button	In small screen, Delete button is outside the viewport.	Safari, iOS 15	All buttons fully visible	Delete button is cut off	High	Open
BUG_003	Whitespace-only task accepted	Entering only spaces adds a blank task.	Firefox, macOS	Validation error shown	Blank task added	Medium	Open

There is another template for test case like this below but I used the most common one

Test Case Template

Test Scenario ID: TS_001
Test Scenario: Test login functionality

Test Case ID	Test Case	Pre-Condition	Test Steps	Test Data	Expected Result	Post Condition	Actual Result	Status
TC_001	Enter valid user name	Need a valid email	Enter email Enter password Click 'login'	Valid user email	Successful login	User account is shown		

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