**Dern Support System Test Cases (Laravel)**

This document outlines test cases for the Dern Support System, built with Laravel. These cases cover functionalities like tickets, departments, categories, users, comments, inventory, and admin management.

**Testing Tools:**

* Laravel includes PHPUnit for unit and feature testing.
* Consider using additional packages like Pest for a more expressive testing experience.

**Test Case Structure:**

Each test case follows a similar structure:

* **Test Case ID:** Unique identifier for the test (e.g., TC-001).
* **Functionality:** The feature being tested (e.g., Tickets).
* **Description:** A clear explanation of what the test aims to achieve.
* **Expected Result:** The desired outcome after executing the test.

**Test Cases Breakdown:**

**1. Tickets**

* **TC-001: Create Ticket (Valid)**
  + Description: Test successful ticket creation with valid data.
  + Steps:
    1. Login as a user.
    2. Navigate to "Create Ticket" page.
    3. Fill out the form with valid details (title, description, category, etc.).
    4. Submit the form.
  + Expected Result:
    1. Ticket is created successfully.
    2. Ticket details are displayed correctly.
* **TC-002: Create Ticket (Invalid)**
  + Description: Test unsuccessful ticket creation with missing data.
  + Steps:
    1. Login as a user.
    2. Navigate to "Create Ticket" page.
    3. Submit the form without any data.
  + Expected Result:
    1. Error message is displayed highlighting missing fields.
    2. Ticket is not created.
* **TC-003: View Tickets**
  + Description: Test user can view their submitted tickets.
  + Steps:
    1. Login as a user.
    2. Navigate to "My Tickets" page.
  + Expected Result:
    1. A list of user's submitted tickets is displayed.
* **TC-004: Add Comment**
  + Description: Test user can add comments to their tickets.
  + Steps:
    1. Login as a user.
    2. Open a specific ticket.
    3. Enter a comment in the designated field.
    4. Submit the comment.
  + Expected Result:
    1. The comment is added to the ticket and displayed.

**2. Departments**

* **TC-005: Create Department (Admin)**
  + Description: Test admin can create a new department.
  + Steps:
    1. Login as an admin.
    2. Navigate to "Departments" management page.
    3. Click "Create Department" button.
    4. Fill out the form with department details (name, description).
    5. Submit the form.
  + Expected Result:
    1. The new department is created and displayed on the list.
* **TC-006: Edit Department (Admin)**
  + Description: Test admin can edit an existing department.
  + Steps:
    1. Login as an admin.
    2. Navigate to "Departments" management page.
    3. Click "Edit" button for a specific department.
    4. Edit department details as needed.
    5. Submit the form.
  + Expected Result:
    1. The department details are updated successfully.

**3. Categories**

* **TC-007: Create Category (Admin)**
  + Description: Test admin can create a new ticket category.
  + Steps (similar to TC-005 for departments).
  + Expected Result:
    - The new category is created and displayed on the list.

**4. Users**

* **TC-008: User Registration**
  + Description: Test user registration process with valid data.
  + Steps:
    1. Access the user registration page.
    2. Fill out the form with valid user information (name, email, password).
    3. Submit the form.
  + Expected Result:
    1. User account is created successfully.
    2. User is redirected to the login page.
* **TC-009: User Login**
  + Description: Test user login with valid credentials.
  + Steps:
    1. Access the login page.
    2. Enter registered email and password.
    3. Submit the login form.
  + Expected Result:
    1. User is successfully logged in and redirected to the dashboard.

**5. Comments**

* **TC-010: Edit Comment (User)**
  + Description: Test user can edit their own comments on tickets.