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UI / integration testing

Testing the Application

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# Test Plan

This test plan has been designed to ensure the functionality and the reliability of the web application that has been developed with the integration of the backend API that was tested previously. By testing the application, we will be able to ensure that the application is functioning as expected when integrated with the backend API.

# Objectives

The objectives of testing include:

* Ensuring the UI components function as expected
* Ensure that the backend integration API endpoints
* Ensure registered users are able to login
* Unsure there is user access control

# Test Scope

* Frontend application
* Integration of the backend API
* User authentication and authorisation

# Test Strategy

Types of testing that will be conducted:

* Functional testing
* Integration testing
* UI / UX testing

Testing will be conducted manually.

# Test Environment

**Frontend:** React Native

**Backend:** node.js and Express

**Devices:** mobile emulator

# Test Cases

To perform the following test cases, you will need to use the following login credentials. They can also be found in the README file of the project.

|  |  |
| --- | --- |
| **Email** | **Password** |
| student@gmail.com | 963852 |
| tutor@gmail.com | 456123 |
| admin@gmail.com | 789456 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test ID** | **Feature** | **Steps** | **Description** | **Expected Result** | **Pass / Fail** |
| TC01 | Login | Login to the application using the above credentials. | User logs in with valid credentials | Homepage is loaded | Pass |
| TC02 | Login | Try to login to the application using a different email and password | User logs in with invalid credentials | Error message shown | Pass |
| TC03 | Authentication | Login in as a student and try to access other role-based views | Unauthorized user tries to access protected page | Student credentials are unable to view add, edit and delete buttons | Pass |
| TC04 | Authentication | Login into the application using the tutor and admin views and notes that certain views have access to certain buttons . | Role-based access for Admin, User, etc. | Access limited as per role | Pass |
| TC05 | Backend integration | Once on the home page of the application click into one of the subjects and view the article cards. | Fetch list of articles | Data displayed correctly | Pass |
| TC06 | Backend integration | Login in as a tutor or admin and add a new article | Create a new article | Record appears in the list | Fail |
| TC07 | Backend integration | Login as a tutor or admin and edit an article. | Edit existing article | Data updated accordingly | Pass |
| TC08 | Backend integration | Login in as admin and try to delete an article | Delete a article | Record is removed from UI and database | Pass |
| TC09 | Navigation | Navigate between different pages | Navigation between pages | Routes function without issues | Pass |
| TC10 | Display | View the article cards and the articles themselves and make sure they are displaying correctly | Data displays properly in cards and pages | UI matches the expected data | Pass |

# Test Summary

**Author:** Leah

**Date:** 03/07/2025

**Testing Period**: July 3, 2025

## Overview of Testing

This test summary summarises the results of the testing that has been conducted on the frontend of the application with backend integration. The main objective is to ensure the functionality of the application. the testing was done manually.

## Test Execution Summary

|  |  |  |
| --- | --- | --- |
| **Total Test Cases** | **Passed** | **Failed** |
| 10 | 9 | 1 |

## Key Findings & Defects Found

Medium-Priority Defect:

**BUG\_TC06 - Error Creating Article**

* **Issue:** article is created but the data is not being saved
* **Impact:** this leads to poor data collection.
* **Severity:** High
* **Steps to reproduce:** 
  1. Open the application using a tutor / admin account
  2. Navigate to a subject page
  3. Click the add button and fill out the form.
  4. Click the add (art, mathematics, technology) button.
  5. the article is now created.

**Expected:** article appears in the list.

**Actual:** an article is created but none of the information entered is saved to the article. The only information available is the article ID.