My test plan as given below focuses on key UI functionalities, ensuring critical workflows are covered in approximately 15 minutes. The plan highlights core interactions, including account creation, navigation, and space/project management, while also addressing identified issues, such as duplicate project names and missing profile update feedback. Additional test variations are noted for more comprehensive testing, if time permits.

Summary of the Test Plan:

Tests Within 15-Minute Execution:

1. Test Case 1: Account Creation and Login
2. Test Case 2: Dashboard Navigation
    (Without testing on different browsers/screen sizes)
3. Test Case 3: Space Creation
    (Excluding duplicate name handling and special character variations)
4. Test Case 4: Project Creation
    (Testing simple project creation and duplicate name handling)
5. Test Case 5: Error Handling
6. Test Case 6: Basic Performance Testing
7. Test Case 7: Profile Update
    (Excluding multi-device or multi-browser updates)

Requiring Extra Time (Test Variations):

1. Test Case 2: Testing on different browsers and screen sizes.
2. Test Case 3: Handling duplicate space names and invalid name input.
3. Test Case 4: Project creation with invalid inputs (empty project names).
4. Test Case 7: Testing profile updates across multiple devices or browsers in real-time.

Detailed Test Plan:

Test Case 1: Account Creation and Login
- Test Steps:
    - Create a new account using valid credentials.
    - Log out and log in again with the newly created account.
    - Attempt to log in using invalid credentials (e.g., wrong password).
    - Test "Forgot Password" functionality.
- Expected Results:
    - Account should be created, and successful login and logout should occur.
    - Appropriate error messages should be shown for invalid login attempts or password resets.

Test Case 2: Dashboard Navigation
- Pre-condition: User is logged in.
- Test Steps:
  - Navigate through the dashboard options (Spaces, Projects, Account Settings).
  - Test the responsiveness of sections and verify the loading time for each navigation.
- Expected Results:
  - All areas should be accessible, load within reasonable time, and display content properly.
  - UI should remain responsive across different sections.
- Test Variations (extra time): Test on different browsers and screen sizes to ensure responsiveness.

Test Case 3: Space Creation
- Pre-condition: User is logged in.
- Test Steps:
  - Create a new space using valid name.
  - Create another space with the same name to test duplicate handling.
  - Delete a space and confirm deletion.
- Expected Results:
  - Space with valid name should be created successfully.
  - The system should not allow duplicate names and display proper error messages.
  - Deletion should be successful, with confirmation prompts.
- Test Variations (extra time): Create a space with an invalid name (e.g., special characters) to verify error handling.

Test Case 4: Project Creation (Issue Found)
- Pre-condition: User is logged in and within the space created.
- Test Steps:
  - Create a new RStudio project.
  - Attempt to create another RStudio project with the same name within the same space.
- Expected Results:
  - First new project should be created successfully.
  - Second project with the same name should not be created.
- Issue Observed: Able to create two RStudio projects with identical names in the same namespace.

Kanika Grover

- Risk: This could lead to confusion, data integrity issues, or unintentional overwriting of projects, especially in collaborative environments.
- Suggested Fix: Implement a validation mechanism to prevent duplicate project names within the same namespace, prompting the user with an error message.
- Test Variations (extra time): Creating projects outside of space created. Attempt creating projects with invalid inputs (e.g., empty project name) and verify that appropriate error messages are displayed.

Test Case 5: Error Handling
- Test Steps:
    - Leave required fields blank in forms and attempt to submit.
    - Enter invalid characters in text fields.
- Expected Results:
    - The system should display clear, actionable error messages and prevent submission of invalid forms.

Test Case 6: Basic Performance Testing
- Pre-condition: User is logged in.
- Test Steps:
    - Rapidly switch between different sections (Spaces, Projects, and Settings).
    - Monitor the load times and responsiveness.
- Expected Results:
    - All sections should load quickly and perform smoothly under normal use.

Test Case 7: Profile Update (Issue Found)
- Pre-condition: User is logged in and on the profile page.
- Test Steps:
    - Modify profile details (e.g., change email, name, add location, etc.).
    - Save the changes and verify the update.
    - Check if any message or visual feedback is displayed.
- Issue Observed: No feedback message is displayed after the update.
- Risk: Users may not be sure if their changes were saved, causing confusion or multiple edits.
- Suggested Fix: Display a clear success message (e.g., "Profile updated successfully") to confirm the changes.
- Test Variations (extra time): Try updating the profile while logged in from multiple devices or browsers, to find if the update reflect in real-time across all sessions.