

StudyBuddy Test Plan

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Test Case 1: Joining a Study Group

Test ID: TC001

Feature: Group Management

Priority: High

Test Description:

Verify that a student can successfully search for and join an available study group.

Preconditions:

- User is logged into StudyBuddy app
- User has a valid student account
- At least one study group exists for the subject "Computer Science"

Test Steps:

1. Navigate to "Study Groups" section
2. Tap on search bar
3. Enter "Computer Science" in search field
4. Tap search button
5. Select "CS 101 Study Group" from results
6. Tap "Request to Join" button
7. Confirm join request

Input Data:

- Search term: "Computer Science"
- Selected group: "CS 101 Study Group"
- User ID: student123

Expected Results:

- Search results display relevant study groups
- "CS 101 Study Group" appears in results
- Join request is submitted successfully
- User receives confirmation message: "Join request sent to group admin"
- Group appears in "My Groups" section with "Pending" status

Pass/Fail Criteria:

- ■ PASS: All expected results occur
- ■ FAIL: Any expected result does not occur

Test Case 2: Uploading Shared Notes

Test ID: TC002

Feature: Document Sharing

Priority: High

Test Description:

Verify that a group member can upload and share notes with other group members.

Preconditions:

- User is a member of "CS 101 Study Group"
- User has a PDF file ready for upload
- Group has active session

Test Steps:

1. Navigate to "CS 101 Study Group"
2. Tap "Shared Notes" tab
3. Tap "Upload Notes" button
4. Select PDF file from device
5. Enter title: "Chapter 3 Lecture Notes"
6. Add description: "Covering algorithms and data structures"
7. Tap "Upload" button

Input Data:

- File: "lecture_notes_ch3.pdf" (2.5 MB)
- Title: "Chapter 3 Lecture Notes"
- Description: "Covering algorithms and data structures"
- Group: "CS 101 Study Group"

Expected Results:

- File uploads successfully
- Progress indicator shows upload completion
- File appears in shared notes list
- Other group members receive notification
- File is accessible to all group members
- File metadata displays correctly (title, description, upload date)

Pass/Fail Criteria:

- ■ PASS: All expected results occur
- ■ FAIL: Upload fails or any expected result does not occur

Test Case 3: Scheduling Study Session

Test ID: TC003

Feature: Session Scheduling

Priority: Medium

Test Description:

Verify that a group admin can schedule a new study session and members receive notifications.

Preconditions:

- User is admin of "CS 101 Study Group"
- Group has at least 3 members
- User has calendar access

Test Steps:

1. Navigate to "CS 101 Study Group"
2. Tap "Schedule Session" button
3. Select date: Tomorrow
4. Set time: 2:00 PM - 4:00 PM
5. Select location: "Library Study Room 201"
6. Add description: "Review for midterm exam"
7. Tap "Create Session"
8. Confirm session creation

Input Data:

- Date: Tomorrow
- Time: 2:00 PM - 4:00 PM
- Location: "Library Study Room 201"
- Description: "Review for midterm exam"
- Group: "CS 101 Study Group"

Expected Results:

- Session is created successfully
- Session appears in group calendar
- All group members receive push notification
- Session details are correct
- Members can RSVP to session
- Session appears in upcoming sessions list

Pass/Fail Criteria:

- ■ PASS: All expected results occur
- ■ FAIL: Session creation fails or notifications not sent

Test Environment Requirements

Devices:

- iOS Simulator (iPhone 14)
- Android Emulator (Pixel 6)
- Physical devices for push notification testing

Network Conditions:

- WiFi connection
- 4G/LTE connection
- Offline mode testing

Test Data:

- Sample study groups
- Test user accounts
- Sample PDF documents
- Mock calendar events

Test Execution Notes

Automated Testing:

- Unit tests for business logic
- Widget tests for UI components
- Integration tests for user flows

Manual Testing:

- User acceptance testing
- Cross-platform compatibility
- Performance testing with large files

Regression Testing:

- Run after each feature update
- Verify existing functionality remains intact