

LetterBuddy Software Test Description (STD):

Introduction:

LetterBuddy is a web application for children's handwriting exercises. Its AI feedback is based on OCR and VLM models. Adults guiding the children on this journey can view their progress. Our objective is to ensure the correct functioning of the user management, generation of exercises, submission, and the adult's progression tracking of their children.

This STD provides detailed insight into each test case we have used to ensure our system's functionality is working as we intended.

As mentioned in our STP, we have done both manual testing (both mobile and desktop) and automated testing for the backend and e2e.

Test Cases:

TC-001 - TC-011 are the automated tests done for the backend.

TC-011 - TC-017 are the end-to-end automated tests.

TC-017 - TC-023 are the manual tests that we haven't checked automatically yet for the rest of the app.

| Test Case ID | Description | Preconditions | Test Steps | Expected Result | Actual Result |
|---------------------|---|--|---|---|---------------|
| (Backend) TC-001 | Adult register endpoint | A user with that username and email isn't present | 1. A valid adult registration request is made | Adult account created, response: 201 | As expected |
| TC-002 | Child register endpoint | The requester is a logged-in adult. A user with that username and email isn't present | 1. A valid child registration request sent | Child account created, response: 201 | As expected |
| TC-003 | User login endpoint | The requester's info is a user registered before | 1. A valid login request is sent | JWT tokens sent, response: 200 | As expected |
| TC-004 | User logout endpoint | The requester is a logged-in user. | 1. A valid logout request is sent | JWT refresh token blacklisted, response: 205 | As expected |
| TC-005 | Adult's child list endpoint | The requester is a logged-in adult with one child. | 1. A valid child list request is sent | A list with that one child is sent, response: 200 | As expected |
| TC-006 | A child cannot access the child list endpoint | The requester is a logged-in child | 1. A valid child list request is sent | Response: 403 - forbidden access | As expected |

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| TC-007 | A child should get their unfinished exercise if there is one in the generated exercise endpoint | The requester is a logged-in child who got an exercise and didn't submit it. | 1. A valid generate exercise request is sent | Returned the exercise that was generated before. Response: 200 | As expected |
| TC-008 | A child wants to refresh his exercise with endpoints | The requester is a logged-in child who got an exercise and didn't submit it. | 1. A valid delete exercise request is sent 2. A valid generate exercise request is sent | The old exercise was deleted, and a new one was sent. | As expected |
| TC-009 | An adult wants to get a list of specific child's exercise endpoints | The requester is a logged-in adult who has a child with an exercise | 1. A valid child's exercise list request is sent. | A list containing that exercise. Response: 200 | As expected |
| TC-010 | An adult wants to get a specific exercise for a specific child's endpoint | The requester is a logged-in adult who has a child with an exercise | 1. A valid child's exercise request is sent. | That exercise. Response: 200 | As expected |

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| (E2E) TC-011 | The user logs in to his account | The user has already registered before | 1. Login form elements are displayed correctly. 2. Fill the form and click the login button. | The user navigated to the correct path, according to his account | As expected |
| TC-012 | Adults sign up | The adult user does not exist yet | 1. Sign-up form elements are displayed correctly. 2 . Fill the form and click the signup button. | The adult user navigates to the login page after a successful request with valid credentials | As expected |
| TC-013 | Child signs up | The request was sent from a logged-in adult user account | 1. Child's sign-up form elements are displayed correctly. 2. Fill the form and click the signup button. | Child added successfully with valid credentials and seen on the child's account page | As expected |
| TC-014 | A child skips an exercise | Already logged in to a child account | 1. The child's exercise component was displayed correctly. 2. Click the skip button 3. Wait for the new exercise to be displayed. | The new exercise is displayed correctly | As expected |

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| TC-015 | Child submits an exercise | Already logged in to a child account | 1. The child's exercise component was displayed correctly 2. Upload the submission image | The submission request has been sent successfully, and a new exercise is displayed. | As expected |
| TC-016 | Adult views child's submission | Already logged in to an adult account that has at least one child account | 1. The child's account page is displayed correctly 2. Click on the submission table button for a child 3. The submission table component is displayed correctly. 4. Click on a submission's "View" button | Submission images and feedback are displayed correctly. | As expected |
| (Manual) TC-017 | An adult wants to get the handcrafted handwriting articles endpoint | The request sent by a logged-in adult | 1. A valid get articles request is sent. | The articles list. Response: 200 | As expected |
| TC-018 | A child wanna view the alphabet gifs | Already logged in to a child account | 1. Click on the alphabet button 2. Alphabet images are displayed correctly 3. Click on a letter's image | The letter's GIF was successfully displayed to the user. | As expected |

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| TC-019 | An adult wanna view his child's progress charts | Already logged in to an adult account that has at least one child account | 1. The child's account page is displayed correctly 2. Click on the charts button for a child | All of the child's progress charts displayed correctly. | As expected |
| TC-020 | An adult wanna sort a child's submissions table | Already logged in to an adult account that has at least one child account | 1. The child's account page is displayed correctly 2. Click on the submission table button for a child 3. Submission table component displayed correctly 4. Click on the sort button | Submission table is sorted by the parameter chosen (score/date/exercise) | As expected |
| TC-021 | A user wanna log out from his account | Already logged-in user | The user clicks on the logout button | Request sent successfully, user navigated to "splash page" | As expected |
| TC-022 | The user selects his type-adult/child | None | 1. User clicks the "Get Started" button 2. Select the user type component loaded correctly. 3. The user clicks on his user type | If the child navigated to login, else navigated to sign up. | As expected |
| TC-023 | A child exercise over all 3 levels - letters, words and categories | Already logged in to a child account | 1. Submit a clear written submissions | The child leveled up through all levels successfully. | As expected |