**Test Plan and Report**

Rapid Review

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12/2/24

### System Test Scenarios

* User Story 1: As a student, I want to transfer my notes into flashcards, so I can study in a variety of active ways.
  + Scenario 1a: Create a new Card (Passed)
    - 1. Go to CreateSetPage of existing set
    - 2. Press `Add Another Term`
    - 3. Type
      * Term N = <test front>
      * Definition N = <test back>
    - 4. Press `Update Set`
    - 5. User should be able to leave CreateSetPage/entire website and the newly added card is still there
  + Scenario 1b: See existing cards (Passed)
    - 1. Go to CreateSetPage of existing set
    - 2. User should see all previously added cards in the set
  + Scenario 1c: Update existing cards (Passed)
    - 1. Go to CreateSetPage of existing set
    - 2. Type
      * Term 1 = <Updated front>
      * Definition 1 = <Updated back>
    - 3. Press `Update Set`
    - 5. User should be able to leave CreateSetPage/entire website and the first card contains the updated information, not the old
  + Scenario 1d: Delete existing card (Passed)
    - 1. Go to CreateSetPage of existing set
    - 2. Press Trash Icon
    - 3. Press Trash Icon again
    - 4. Press `Update Set`
    - 5. User should be able to leave CreateSetPage/entire website and the deleted card is no longer there
* User Story 2: As a student, I want to organize my flashcards into sets, so I can study cards that are relevant to each other.
  + Scenario 2a: Create a new Set (Passed)
    - 1. Go to HomePage
    - 2. Press `Create New Set`
    - 3. Type
      * Set Name = <test name>
      * Description = <test description>
    - 4. Press `Create Set`
    - 5. User should be able to see the newly created set in the HomePage and perform card operations as usual
  + Scenario 2b: See existing sets (Passed)
    - 1. Go to HomePage
    - 2. User should see all previously created sets
  + Scenario 2c: Update existing sets (Passed)
    - 1. Go to CreateSetPage of existing set
    - 2. Type
      * Set Name = <Updated name>
      * Description = <Updated description>
    - 3. Press `Update Set`
    - 5. User should be able to leave CreateSetPage/entire website and the set contains the updated information, not the old
  + Scenario 2d: Delete existing set (Passed)
    - 1. Go to CreateSetPage of existing set
    - 2. Press Delete Set
    - 3. Press Delete Set again
    - 4. Press `Update Set`
    - 5. User should be sent to Homepage and not see the set anymore
* User Story 3: As a student who uses various study platforms, I want to use flashcards from other places on this website, so I don’t waste time creating sets that already exist.
  + Scenario 3: Import Cards (Passed)
    - 1. Go to another flashcard website (I.e. quizlet)
    - 2. Copy an export string onto clipboard
    - 3. Go to CreateSetPage of existing set
    - 4. Press `Import Cards`
    - 5. Paste string onto textbox
    - 6. Press `Import`
    - 7. Press `Update Set`
    - 8. User should be able to see and modify all the newly added cards just like the individually added cards
* User Story 4: As a student, I want to practice answering multiple-choice questions created from my flashcards, so that I can study in an active way.
  + Scenario 4a: Multiple-Choice Question Quiz Generation (Passed)
    - 1. Go to CreateSetPage of existing set with more than 3 cards
    - 2. Press `Quiz Me`
    - 3. Press `Start Test`
    - 4. User should see multiple choice questions where questions are taken from the Terms of cards and answers taken from the Definitions of cards
  + Scenario 4b: Answer Clicking (Passed)
    - 1. Go to CreateSetPage of existing set with more than 3 cards
    - 2. Press `Quiz Me`
    - 3. Press `Start Test`
    - 4. Press an answer option
    - 5. User should see that this answer has been highlighted as the user-picked answer
  + Scenario 4c: Answer Checking (Passed)
    - 1. Go to CreateSetPage of existing set with more than 3 cards
    - 2. Press `Quiz Me`
    - 3. Press `Start Test`
    - 4. Press an answer option for each question
    - 5. Press `Display Results`
    - 6. User should see percentage score they got correct and the correct answer for each question
* User Story 5: As a student, I want the wrong options in the multiple-choice questions to be relevant to the question, so I study better.
  + Scenario 5a: Generating AI Answers (Passed)
    - 1. Go to CreateSetPage of existing set with between 4 and 10 cards
    - 2. Press `LLM` if it has not previously been pressed
      * 2b. If pressed, wait a couple minutes
    - 3. Press `Quiz Me`
    - 4. Press `Start Test`
    - 5. User should see that some answer options have “(AI)” at the end
  + Scenario 5b: Using AI Answers (Inconsistent Passing)
    - 1. Go to CreateSetPage of existing set with between 4 and 10 cards
    - 2. Press `LLM` if it has not previously been pressed
      * 2b. If pressed, wait a couple minutes
    - 3. Press `Quiz Me`
    - 4. Press `Start Test`
    - 5. Press an answer option for each question
    - 6. Press `Display Results`
    - 7. User should see that AI answer options that are marked incorrect are conceptually incorrect and AI answer options that are marked correct are conceptually correct

### Unit Tests

* Backend Unit tests
  + backend/test
  + Files include:
    - card.test.js
    - llm.test.js
    - login.test.js
    - set.test.js
* Frontend Unit Tests
  + frontend/src/test
  + Files include:
    - CreateSet.test.jsx
    - Homepage.test.jsx
    - Login.test.jsx