Test No.	Target Page	Test Name	Purpose of Test	Test Procedure	Test Data (Filled out during testing)	Expected Result	Actual Result	Outcome and Actions Required	Date Tested	Completed By
1	createAccount	Test Create Account	To test whether the account is created in database	Input username/password and create account Login with those credentials		User is logged in	Expected result	No action required	4/12	Anthony
2	createAccount	Test Creating Existing Account	Test whether you can create an account with an existing username/password combo	Input an existing username/password combo	username: hello; password: world;	Error message: account already exists	Error message: account already exists	Bug: Tips are gone if the error message appears	4/3	Anthony
3	createAccount	Test Creating Existing Password	Test whether you can create an account with an existing password but different username	Input a new username but an existing password	username: bye; password: world;	User is logged in	Expected result	No action required	4/14	Anthony
4	createAccount	Test Max Account Limit	To test whether the max account limit is enforced	Change the max account limit in createAccount.js to 1 Try to create an account		Error message saying max number of users reached is displayed	Expected result	No action required	4/14	Anthony
5	login	Test Login	To test logging in with existing user	Input an existing username/password combo correctly	username: hello; password: world;	User is logged in	Expected result	No action required	4/14	Anthony
6	login	Test Login with nonexisting user	Test logging in with non-existent user	Input a nonexistent username/password combo	username: asdfg password: qwerty	Error message is displayed	Expected result	No action required	4/14	Anthony
7	login	Test Login with misspelled username	Test logging in with a misspelled username	Misspell an existing username	username: hell; password: world;	Error message is displayed; Please reenter correct username, password combo	Expected result	No action required	4/14	Anthony
8	login	Test Login with NON-case sensitive username	Test case sensitivity of username login	"Misspell" an existing username	username: HEllO; password: world;	User is logged in	Expected result	No action required	4/14	Anthony
9	login	Test Login with CASE-sensitive password	Test case sensitivity of password login	Misspell a password with caps	username: hello; password: WoRID;	Error message that password incorrectly entered	Expected result	No action required	4/14	Anthony
10	homeScreen	Test creating a deck	To test a deck is created using the create deck	Press create deck button Input a deckname Click Okay		Deck is displayed in number of deck	Expected result	No action required	4/14	Anthony
11	homeScreen	Test deleting a deck	To test the deck deletion is functional	Select a deck to delete Press delete Press okay to confirm popup		Deck is deleted from list of decks	Expected result	No action required	4/14	Anthony
12	homeScreen	Test starting review from homeScreen	To test user can start reviews	Press the arrow on the right side of a deck		Deck review has started	Expected result	No action required	4/14	Anthony
13	homeScreen	Test going to deck details	To test user can navigate to deck details from home	Press the name of the deck		Deck details screen is displayed	Expected result	No action required	4/14	Anthony
14	homeScreen	Test logout from home screen	To test the logout button on home screen works	Press logout button		User is logged out	Expected result	No action required	4/14	Anthony
15	homeScreen	Test only decks from the current user are displayed	Test that database only retrieves decks from user that is logged in	Login as hello / world and verify the decks are displayed, the login as new / old and verify those decks are different		Decks should only display for their user	Expected result	No action required	4/14	Anthony
16	deckDetails	Test creating a flashcard	Test flashcard creation is saved in database	Create and save a flashcard		Flashcard is displayed in the deck details	Expected result	No action required	4/14	Anthony
17	deckDetails	Test deleting a flashcard	Test deleting a flashcard removes from database	Delete a flashcard from deck details		Flashcard is no longer displayed	Expected result	No action required	4/14	Anthony
18	deckDetails	Test edit a flashcard	Test editing a flashcard saves changes in database	Edit the front and back of a flashcard		Edited front and back are saved	Expected result	No action required	4/14	Anthony
19	deckDetails	Test edit deck name	Test editing deck name saves name in database	Edit the deck name		Deck name is changed on home screen	Expected result	No action required	4/14	Anthony
20	deckDetails	Test edit deck settings	Test changing deck settings changes settings in database	Edit the deck settings		The settings should be saved if you navigate away and back	Expected result	No action required	4/14	Anthony
21	deckDetails	Test summary graph shows progress	Test summary graph in deck details records data from previous reviews	Do a review with the deck		The graph should save the stats from the review	Expected result	No action required	4/14	Anthony
22	reviewSession	Test Reveal Answer button	Test functionality of button	Click Reveal Answer		Answer card is revealed	Expected result	No action required	4/14	Anthony
23	reviewSession	Test Hot Keys	Test functionality of hot keys	Spacebar or enter should reveal answer 0 or 2 should be incorrect 1 should be correct		Hotkeys function as intended	Expected result	No action required	4/14	Anthony
24	reviewSession	Test dynamic score counter	Test functionality of dynamic score counter	Do a review		Dynamic score keeps count as review goes on	Expected result	No action required	4/14	Anthony
25	finishedReview	Test Summary Graph at the end of a review	Test functionality of summary graph	Do a review		Summary graph at the end shoes the stats from the review	Expected result	No action required	4/14	Anthony
26	finishedReview	Test Start Review button starts a new review	To test functionality of start new review button at the end of a review	Do a review and click start review at the end		New review should be started	Expected result	No action required	4/14	Anthony
27	All Screens	Test the browser debug menu lockout	Ensure lockout code keeping the user out of the debug menus to prevent them viewing .js code	Use the specified hotkeys to see if the expected menus pop up when utilized	right click; crtl + shift + I; ctrl + shift + c; ctrl + shift + j ; f12	No menues are expected to pop up when the specified keys are pressed	expected results occured	Bug: unrelated testing showed lockout code fully disables the individual keys (i.e. the letter j cannot be pressed when making a flashcard)	4/5	Skyler
28	All Screens	Test the browser debug menu lockout	Ensure lockout code keeping the user out of the debug menus to prevent them viewing .js code	Use the specified hotkeys to see if the expected menus pop up when utilized; check each individual key still operates independently (with exception to f12)	right click; crtl + shift + I; ctrl + shift + c; ctrl + shift + j ; f12	No menues are expected to pop up when the specified keys are pressed; individual keys still operate normally when not used in the listed hotkey combos (f12 is not a part of this expectation)	expected results occured	No action required	4/5	Skyler

Test Sequence	Test No.	Target Page	Test Name	Purpose of Test	Test Procedure	Test Data (not in table format)	Test Data (Filled out during testing)							Expected Result	Actual Result	Outcome and Actions Required	Date Tested	Completed By
A	1	createAccount login	Create Account & Login	Create an account to do testing	1. Click on create new account. 2. Enter in a username and password. 3. Press create. 4. Enter in the username and password that you just created. 5. Press login.		Enter username: merry Enter password: christmas							In database, under users collection, a new document should be created for the user merry. If entered in correctly, users should be directed to the homeScreen page.	New users document merry created in the database. Successfully logged in. Now, on home page.	No actions required.	4/10	Lily
	2	homeScreen	Create deck and flashcards	Create a deck to do testing	From test #1, you should be on the home page. 1. Click on the + button to create a deck. 2. Name the deck Division. 3. Press create. 4. On the deckDetails page, navigate to the Flashcards tab. 5. Press the + button to add flashcards. 6. Enter in the flashcard question and answer. 7. Press create. 8. Repeat steps 5-7 to create 9 flashcards.	For the flashcards' questions and answers, enter the following data: 8 / 4 = 2 16 / 4 = 4 20 / 4 = 5 32 / 4 = 8 36 / 4 = 9 24 / 4 = 6 12 / 4 = 3 28 / 4 = 7 40 / 4 = 10	Count 9	Level 0	reviewToday no	nextDateAppearance nullDate	Question 8 / 4 16 / 4 20 / 4 32 / 4 36 / 4 24 / 4 12 / 4 28 / 4 40 / 4	Answer 2 4 5 8 9 6 3 7 10		Added flashcards should be observed in the 1) database under the collection Flashcard 2) Flashcards tab of deckDetails page. Pressing the create button (for creating a deck) should direct users to the deckDetails page automatically. Clicking the Flashcards tab on the deckDetails page should bring up an empty page with a select all on the left-hand corner and a + (add) button.	Flashcards were successfully added and observed in both the database and Flashcards tab. User was automatically directed to the respective pages after clicking on the respective buttons.	No actions required.	4/10	Lily
	3	reviewSession	Create deck and flashcards / Doing a review session.	Review the flashcards created to test whether the code to switch between review mode works as intended.	From test#2, you should be on the deckDetails page. 1. At the top left-hand corner, press the Start Review button. 2. Answer 4 flashcards in total (2 correct; 2 incorrect). 3. After reviewing 4 flashcards, press the pause button at the top right-hand corner. Note: If you are retesting, due to the nature of the application code, it is possible that you review a different set of 4 flashcards.	Answer the following flashcards correctly: 28 / 4 40 / 4 Answer the following flashcards incorrectly: 24 / 4 12 / 4	Count 5 2 2	Level 0 0 1	reviewToday no yes yes	nextDateAppearance nullDate currentDate (4/10) currentDate (4/10)	Question 8 / 4 16 / 4 20 / 4 32 / 4 36 / 4 24 / 4 12 / 4 28 / 4 40 / 4	-		The table to the right gives an updated database snapshot after reviewing the 4 flashcards. The table below gives the values for the progress chart which can be observed on the deckDetails page (Summary tab). Date 4/10	Correct 2	Incorrect 2	Database was updated exactly as depicted by the database snapshot. The progress chart displays the values in the table shown to the left.	No actions required.	4/10	Lily
	4				On the deckDetails page, 1. Navigate to the Settings tab.		Count 5	Level 0	reviewToday no	Before: nextDateAppearance nullDate	After: nextDateAppearance nullDate	Question 8 / 4 16 / 4 20 / 4 32 / 4 36 / 4	Case B			Database was updated			

(continuation of previous test case)

Component	Change	Test	Steps	Data
deckDetails	Change the review mode from daily to continuous.	Test whether the switching between review modes is working as intended.	1. Navigate to the Settings tab. 2. Press edit. 3. Change the review mode from daily to continuous. Press save.	NA

Count	Level	reviewToday	Before: nextDateAppearance	After: nextDateAppearance	Question	Case
2	0	yes	currentDate	currentDate + 1	24 / 4, 12 / 4	A
2	1	yes	currentDate	currentDate + 2	28 / 4, 40 / 4	D

The table to the right gives a snapshot of how the database should be updated after changing the review mode. — Database was updated exactly as depicted by the database snapshot. — No actions required. — 4/10 — Lily

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Test 5

Component	Change	Test	Steps	Data
deckDetails	Change the review mode from continuous to daily.	Test whether the switching between review modes is working as intended.	On the deckDetails page, 1. Navigate to the Settings tab. 2. Press edit. 3. Change the review mode from continuous to daily. Press save.	NA

Count	Level	reviewToday	Before: nextDateAppearance	After: nextDateAppearance	Question	Case
5	0	no	nullDate	nullDate	8/4, 16/4, 20/4, 32/4, 36/4	G
2	0	yes	currentDate + 1	currentDate	24/4	F
2	1	yes	currentDate + 2	currentDate	28/4, 40/4	I

The table to the right gives a snapshot of how the database should be updated after changing the review mode. — Database was updated exactly as depicted by the database snapshot. — No actions required. — 4/10 — Lily

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Test 6

Component	Change	Test	Steps	Data
reviewSession finishedReview	Doing a review session.	Review the flashcards created to test whether the code to switch between review mode works as intended.	You should be on the deckDetails page. 1. At the top left-hand corner, press the Start Review button. 2. Answer the remaining 5 new flashcards (3 correct; 2 incorrect). 3. Once finished answering ALL flashcards in the deck, you will be directed to the finishedReview screen. Remain here until the next test. Note: If you are retesting, due to the nature of the application code, it is possible that you review a different set of 4 flashcards.	NA

Count	Level	reviewToday	Before: nextDateAppearance	After: nextDateAppearance	Question
2	0	4/10	nullDate	nullDatePlus1	16 / 4
3	1	4/10	nullDate	nullDatePlus1	8 / 4, 20 / 4, 32 / 4
2	0	4/10	4/10	nullDatePlus1	24 / 4, 12 / 4
2	1	4/10	4/10	nullDatePlus1	28 / 4, 40 / 4

Highlighted rows represent the flashcards that should have been reviewed.

Again, due to the nature of the application, the above flashcards may not be reviewed if retesting. Users should be directed to the finished review screen once all flashcards have been answered. The table to the right gives a snapshot of how the database should be updated after reviewing the flashcards. The table below gives the values for the progress chart which can be observed on the deckDetails page (Summary tab).

Date	Correct	Incorrect
4/10	5	4

The user was directed automatically to the finished review screen. The database was updated exactly as depicted by the database snapshot. The progress chart was also updated accordingly. — No actions required. — 4/10 — Lily

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Test 7

Component	Change	Test	Steps	Data
reviewSession finishedReview	Doing a review session.	Check whether flashcards can be reviewed again by pressing the finishedReview screen.	You should still be on the finishedReview page. 1. At the bottom right, press the Start Review button. 2. Answer all 9 flashcards in the deck. Of the level 0 flashcards, answer 4 correct; 0 incorrect. Of the level 1 flashcards, answer 4 incorrect; 1 correct. 3. Once finished answering ALL flashcards in the deck, you will be directed to the finishedReview screen. Press return to deck screen.	NA

Count	Level	reviewToday	nextDateAppearance	Question
4	0	yes	nullDatePlus1	8 / 4, 20 / 4, 32 / 4, 36 / 4
3	1	yes	nullDatePlus1	12 / 4, 16 / 4, 24 / 4
2	2	yes	nullDatePlus1	28 / 4, 40 / 4

All 9 flashcards in the deck should be reviewed: [16 / 4; 36 / 4; 8 / 4; 20 / 4; 32 / 4; 24 /4; 12 / 4; 28 / 4; 40 / 4]. The table to the right gives a snapshot of how the database should be updated after reviewing the flashcards. The table below gives the values for the progress chart which can be observed on the deckDetails page (Summary tab).

Date	Correct	Incorrect
4/10	10	8

The user was directed automatically to the finished review screen. The database was updated exactly as depicted by the database snapshot. The progress chart was also updated accordingly. — No actions required. — 4/10 — Lily

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Test 8

Component	Change	Test	Steps	Data
reviewSession finishedReview	Doing a review session.	Check whether flashcards can be reviewed again by pressing the finishedReview screen.	press the Start Review button. 2. Answer all 9 flashcards again as follows: Level 0 flashcards: 1 correct, 3 incorrect. Level 1 flashcards: 2 correct, 1 incorrect. Level 2 flashcards: 1 correct; 1 incorrect. 3. Once you've finished reviewing, you should be automatically directed to the finishedReview page. Press the Return to Deck button.	NA

Count	Level	reviewToday	nextDateAppearance	Question
4	0	yes	nullDatePlus1	36 / 4, 32 / 4, 24 / 4, 20 / 4
2	1	yes	nullDatePlus1	8 / 4, 28 / 4
2	2	yes	nullDatePlus1	12 / 4, 16 / 4
1	3	yes	nullDatePlus1	40 / 4

All 9 flashcards in the deck should be reviewed: [16 / 4; 36 / 4; 8 / 4; 20 / 4; 32 / 4; 24 /4; 12 / 4; 28 / 4; 40 / 4]. The table to the right gives a snapshot of how the database should be updated after reviewing the flashcards. The table below gives the values for the progress chart which can be observed on the deckDetails page (Summary tab).

Date	Correct	Incorrect
currentDate	14	13

The user was directed automatically to the finished review screen. The database was updated exactly as depicted by the database snapshot. The progress chart was also updated accordingly. — No actions required. — 4/10 — Lily

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Test 9

Component	Change	Test	Steps	Data
deckDetails	Add new flashcards to deck.	Preparing for next test case to check whether the nextDateAppearance = nullDate is NOT changed even after switching between different review modes (continuous/daily)	1. On the deckDetails page, navigate to the Flashcards tab. 2. Press the + button to add flashcards. 3. Enter in the flashcard question and answer. 4. Press create. 5. Repeat steps 5-7 to create 3 new flashcards.	Add the following 3 flashcards: 55 / 5 = 11, 35 / 5 = 7, 25 / 5 = 5

Count	Level	reviewToday	nextDateAppearance	Question
3	0	no	nullDate	55 / 5, 35 / 5, 25 / 5
4	0	yes	nullDatePlus1	36 / 4, 32 / 4, 24 / 4, 20 / 4
2	1	yes	nullDatePlus1	8 / 4, 28 / 4
2	2	yes	nullDatePlus1	12 / 4, 16 / 4
1	3	yes	nullDatePlus1	40 / 4

Added flashcards should be observed in the 1) database under the collection Flashcard 2) Flashcards tab of deckDetails page. — Flashcards were successfully added and observed in both the database and Flashcards tab. — No actions required. — 4/10 — Lily

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Test 10

Component	Change	Test	Steps	Data
deckDetails	Change the review mode from daily to continuous.	Test whether the switching between review modes is working as intended.	On the deckDetails page, 1. Navigate to the Settings tab. 2. Press edit. 3. Change the review mode from daily to continuous. Press save.	NA

Count	Level	reviewToday	Before: nextDateAppearance	After: nextDateAppearance	Case	Question
4	0	yes	nullDatePlus1	4/11	A	20 / 4, 24 / 4, 32 / 4, 36 / 4
3	0	no	nullDate	nullDate	B	55 / 5, 35 / 5, 25 / 5
2	1	yes	nullDatePlus1	4/12	D	8 / 4, 28 / 4
2	2	yes	nullDatePlus1	4/14	D	12 / 4, 16 / 4
1	3	yes	nullDatePlus1	4/16	D	40 / 4

The table to the right gives a snapshot of how the database should be updated after changing the review mode. — Database was updated exactly as depicted by the database snapshot. — No actions required. — 4/10 — Lily

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Test 11

Component	Change	Test	Steps	Data
deckDetails	Change the review mode from continuous to daily.	Test whether the switching between review modes is working as intended.	This test is to be done the FOLLOWING day. On the deckDetails page, 1. Navigate to the Settings tab. 2. Press edit. 3. Change the review mode from continuous to daily. Press save.	NA

Count	Level	reviewToday	Before: nextDateAppearance	After: nextDateAppearance	Case	Data: Question
4	0	no	4/11	nullDatePlus1	H	20 / 4, 24 / 4, 32 / 4, 36 / 4
3	0	no	nullDate	nullDate	G	55 / 5, 35 / 5, 25 / 5
2	1	no	4/12	nullDatePlus1	J	8 / 4, 28 / 4
2	2	no	4/14	nullDatePlus1	J	12 / 4, 16 / 4
1	3	no	4/16	nullDatePlus1	J	40 / 4

The table to the right gives a snapshot of how the database should be updated after changing the review mode. — Database was updated exactly as depicted by the database snapshot. — No actions required. — 4/11 — Lily

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Test 12

Count	Level	reviewToday	Before: nextDateAppearance	After: nextDateAppearance	Case	Data: Question

Required: Fix the bug! Change code

Test No.	Target Page	Test Name	Purpose of Test	Test Procedure	Expected Result	(sub-table)						Outcome and Actions Required			Date Tested	Completed By

Top block (continuation)

| deckDetails | Change the review mode from daily to continuous. | Test whether the switching between review modes is working as intended. | On the deckDetails page, 1. Navigate to the Settings tab. 2. Press edit. 3. Change the review mode from daily to continuous. Press save. | NA |

Count	Level	reviewToday	Before: nextDateAppearance	After: nextDateAppearance	Case	Question
4	0	no	nullDatePlus1	4/11	C	20 / 4 24 / 4 32 / 4 36 / 4
3	0	no	nullDate	nullDate	B	55 / 5 35 / 5 25 / 5
2	1	no	nullDatePlus1	4/13	E	8 / 4 28 / 4
2	2	no	nullDatePlus1	4/15	E	12 / 4 16 / 4
1	3	no	nullDatePlus1	4/17	E	40 / 4

Outcome and Actions Required: The table to the right gives a snapshot of how the database should be updated after changing the review mode. | Database was updated exactly as depicted by the database snapshot. | Change date so that instead of using currentDate to calculate the nextDateAppearance use reviewedToday which is the date that the flashcard was last reviewed. | 4/11 | Lily

Test 13

| deckDetails | Change the review mode from continuous to daily. | To test whether logical bug #1 was fixed, revert back to daily review mode. | On the deckDetails page, 1. Navigate to the Settings tab. 2. Press edit. 3. Change the review mode from continuous to daily. Press save. | NA |

Count	Level	reviewToday	Before: nextDateAppearance	After: nextDateAppearance	Case	Question
4	0	no	4/11	nullDatePlus1	H	20 / 4 24 / 4 32 / 4 36 / 4
3	0	no	nullDate	nullDate	G	55 / 5 35 / 5 25 / 5
2	1	no	4/13	nullDatePlus1	J	8 / 4 28 / 4
2	2	no	4/15	nullDatePlus1	J	12 / 4 16 / 4
1	3	no	4/17	nullDatePlus1	J	40 / 4

Outcome and Actions Required: The table to the right gives a snapshot of how the database should be updated after changing the review mode. | Database was updated exactly as depicted by the database snapshot. | No actions required. | 4/11 | Lily

Test 14

| deckDetails | Change the review mode from daily to continuous. | Test whether logical bug #1 was fixed. Convert back to continuous review mode. | On the deckDetails page, 1. Navigate to the Settings tab. 2. Press edit. 3. Change the review mode from daily to continuous. Press save. | NA |

Count	Level	reviewToday	Before: nextDateAppearance	After: nextDateAppearance	Case	Data: Question
4	0	no (4/10)	nullDatePlus1	4/11	C	20 / 4 24 / 4 32 / 4 36 / 4
3	0	no (nullDate)	nullDate	nullDate	B	55 / 5 35 / 5 25 / 5
2	1	no (4/10)	nullDatePlus1	4/12	E	8 / 4 28 / 4
2	2	no (4/10)	nullDatePlus1	4/14	E	12 / 4 16 / 4
1	3	no (4/10)	nullDatePlus1	4/16	E	40 / 4

Outcome and Actions Required: The table to the right gives a snapshot of how the database should be updated after changing the review mode. | Database was updated exactly as depicted by the database snapshot. | Outcome: bug was successfully fixed. Now, switching from continuous to daily to continuous (without any review session in between) results in no changes to the nextDateAppearance. | 4/11 | Lily

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Test No.	Target Page	Test Name	Purpose of Test	Test Procedure	Expected Result	Actual Result	Outcome and Actions Required	Date Tested	Completed By
G.1	Deck Details/Review	Create flashcards for John exam and reviewed them.	Practical test of usability of Dorki and whether it is effective in helping one memorize.	Created about 15flash cards related to exam I am taking for my Gospel of John class. I set the settings to continuous and 10 new flash cards a day.	Cards would show up correctly in review session	There is a bug where the side panel does not extend when the number of flashcards exceeds the size of the screen.	Javascript is needed to change the size of the side panel to adjust to the size of the flashcard list.	4/12/23	Justin
G.2	Deck Details/Review	Add more flashcards to John exam deck and review them.	I needed to add more cards to the deck to help me memorize more stuff. I wanted to also test if changing the number of new cards worked.	I added about 10 new cards, opened the review page, reviewed a card or two, returned, and then changed the amount of new cards to lower amount and greater amount then before.	Changing the number of daily new cards would correctly be reflected in the number of cards to review in the review screen.	Lowering the amount of daily new cards did not reduce the total number of cards to be reviewed, which is not what is supposed to happen	I need to work with Lily to find a solution to this bug.	4/13/23	Justin
G.3	Deck Details/Review	Add last flashcards to John and review them	Testing one deck over the span of more than two days	I added the final cards to the deck and checked the graph	Over time I would get a better score.	Cards that are new and return to level 0 should reappear in the same session but do not. When it comes to effectiveness as being used for what it is intended in a memorization environment, the graph did accurately reflect that I have been getting better scores over time overall.	We need to implement a way for a flashcard to reappear in the same session when it is level 0.	4/14/23	Justin