

3. Specific Requirements

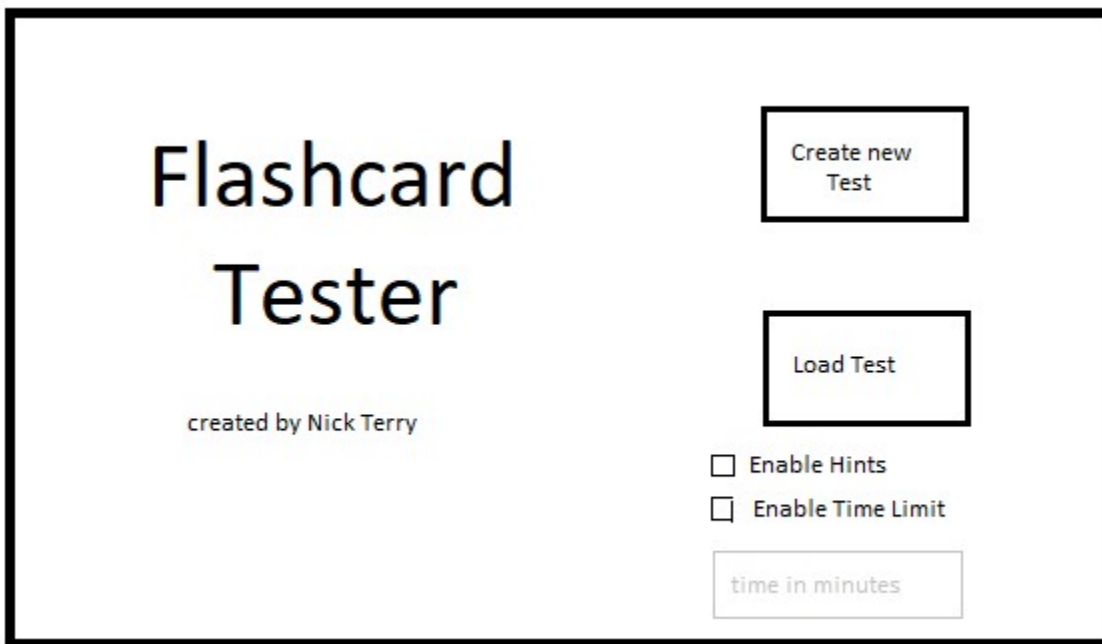
This section contains all of the functional and quality requirements of the system. It gives a detailed description of the system and all its features.

3.1 External Interface Requirements

This section provides a detailed description of all inputs into and outputs from the system. It also gives a description of the hardware, software and communication interfaces and provides basic prototypes of the user interface.

3.1.1 User Interface

The first page the user should see is the Home page which displays the software name “Flashcard Tester”, two main options: to create a new test or to load a previously created test which will move the user to a new page, a check box enabling hints, and a checkbox enabling time limit with a space for the user to input the time limit in minutes.



Flashcard
Tester

created by Nick Terry

Create new
Test

Load Test

☐ Enable Hints

☐ Enable Time Limit

time in minutes

If the user decides to create a new test the software will navigate to the create page. This page will have text boxes that allow for the user to input the question and answers. There will be two buttons on this page that will allow the user to save the current question and answers and quit to the main menu, and another option that will let the user save the current question and answers and move on to the next question.

Insert Question Here

First Answer

Second Answer

Third Answer

Fourth Answer

Next Question

Save and Quit

If the user decides to pick the option Load Test from the main menu he will be asked which test he wants to load from a list of previously saved tests. Once the test is picked by the user he will be navigated to the question page. This page consists of the question number, the question, the answer choices represented by four radio buttons. There will be a Time Remaining clock constantly counting down the time in seconds if the user selected set a time limit on the main menu page. If the user selected hints enabled on the main page when the user clicks a radio button a red incorrect or green correct will instantly pop up next to the answer. When the user is finished he can choose to go to the next question or quit the test and go back.

Question 1

Time Remaining
35:01

What is 2 + 2?

☒ 4 Correct

☐ 5 Incorrect

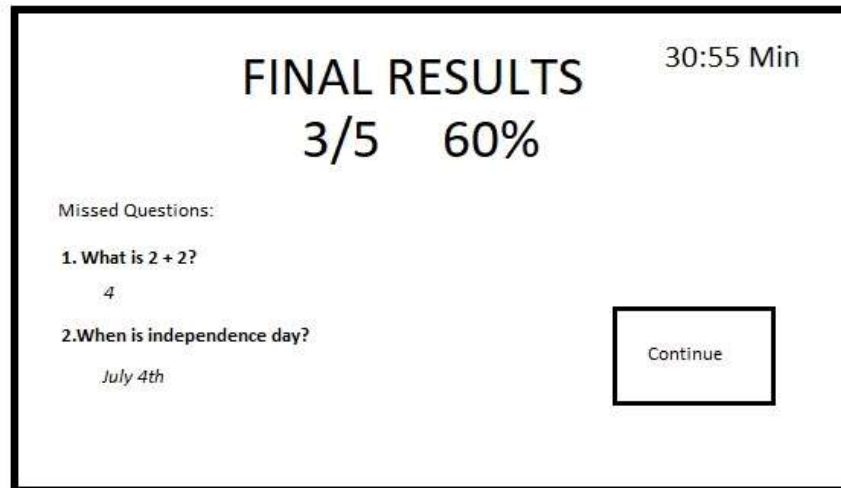
☐ 2

☐ 3

Next Question

Quit to Main Menu

When the user has iterated through all the questions the software will navigate to the results page. This page will display the title “FINAL RESULTS” to make it clear to the user they are finished with the test. Below that is a fraction representing the correct answers over the total answers and a corresponding percentage. The time in the upper right will display the time it took to finish the test and will display regardless of whether the enable time limit check box was checked at the main menu screen. The questions that were missed will be displayed along with the corresponding correct answer. The only option, continue, will take the user back to the main menu page.



3.1.2 Software Interface

Downloading the software will also download a database file that will store all the information such as questions, answers, correct/incorrect, subject, etc. The communication between the database and the program will consist of reading and writing.

3.2 Functional Requirements

TITLE: Download mobile application

DESC: A user should be able to download the mobile application through either an application store or similar service on the mobile phone. The application should be free to download.

TITLE: Test Creation

DESC: A user should be able to create a new set of flashcards and either add them to an existing set or create a completely new set with its own title and subject. Saving any changes will be permanently stored to the local database file.

TITLE: Enabling Hints

DESC: The user should have the option of enabling hints before starting to take a test. Enabling hints changes the action of clicking a radio button corresponding to an answer to display whether the option was correct or incorrect. This option will provide instant feedback should the user choose.

TITLE: Enabling Time Limit

DESC: If the user clicks the check box enabling a time limit on the main menu there will be a timer that counts down from the input time limit. When the time limit stops the user will be automatically navigated to the results page and all unanswered questions will be counted as incorrect. If the box is left unchecked the timer will count up from zero. The timer will be displayed on every page and stop when the last question has been answered.

TITLE: Question Results

DESC: The results page will display all the questions that were answered incorrectly in bold along with the question number and the answer in italics. If there are so many questions missed that they run off the page, have the ability to scroll down to see them all.