## Project name

Flash Carma

Team member names  
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Abstract

Studying can be a daunting task no matter the scholastic level. Flash cards are a useful study tool that can make this process easier and more enjoyable. However, the time it takes to create flash cards can be prolonged and exhausting. Additionally, the cost of the materials presents an unnecessary expense to those who wish to use them. This is where Flash Carma comes in.

Flash Carma is a web-based application that solves the aforementioned problems by utilizing digital flash cards. Within the app, the user is able to create digital flash cards with their custom questions and answers that are then stored in a Study Deck. What if the user has more than one topic that they would like to study? Not a problem! The user can create an unlimited number of Study Decks, each containing its own set of digital flash cards. The user can select any of their Study Decks and begin a Study Session. During a Study Session, the user is awarded points for each correct answer they give, and they will be given a score at the end of the session that shows their proficiency with that particular Study Deck. The user may even start a Streak by giving successive correct answers! With Flash Carma, the user is able to avoid the problems of traditional flash cards and study effectively and enjoyably.

Tools & Technologies  
List of tools.

* Firebase API
* React
* Node.js
* Express
* ChakraUI
* Tailwind
* Visual Studio Code
* Chrome/Chromium based browsers
* Discord for communication

Requirements list

1. Navigation bar
   1. Search bar
      1. Allow the user to search for a study deck in the existing decks.
   2. The following page links will be displayed:
      1. Home page
      2. Settings page
      3. Study Deck page
      4. Study Session page
   3. User
      1. The user's name will be displayed.
2. Home page
   1. Login
      1. The user will enter their email address and password in a form.
      2. If the information is incorrect a pop up will display indicating an invalid username or password.
      3. If the login information is correct, the user will be redirected to the main page.
      4. A “Forgot password” button will enable the user to reset their password.
         1. When clicked, the user will be sent an email with a temporary code. A dialog will then appear requesting this temporary code.
            1. If the code provided is correct, a text box will be presented with a prompt for the user to enter a new password. There will also be another text box presented with a prompt to re-enter the password. Once the user is finished, they will click “Done”. The two text boxes will be compared to make sure they match.

If the contents of the text boxes do not match, the user will be prompted to try entering the new password again.

* 1. Signup
     1. Create a new account.
        1. The user will enter their email address and password.
           1. The email address and password will be saved to the database, along with a unique user ID.
        2. The user will be redirected to the login.
  2. Main page
     1. Displays user’s current study score.
     2. Displays user’s current highest streak.
     3. Displays most recent study deck.

1. Settings page
   1. Profile settings
      1. Edit username
         1. When clicked, the user’s current username will be presented in a text box for the user to modify.
         2. When the user is finished, they will click “Done”.
         3. If the username is currently taken, a dialog will appear with a message stating that the name is taken. Otherwise, the user’s new username will appear in-place of the old one.
      2. Edit password
         1. When clicked, a dialog appears requesting the user’s current password before allowing any changes.
         2. If the password provided is correct, a text box will be presented with a prompt for the user to enter their new password. There will also be another text box presented with a prompt to re-enter the password. Once the user is finished, they will click “Done”. The two text boxes will be compared to make sure they match.
            1. If the contents of the text boxes do not match, the user will be prompted to try entering the new password again.
         3. If the password provided is incorrect, a dialog will appear with a message stating the provided password is incorrect.
         4. A “Forgot password” option will send the user an email with a temporary code. A dialog will then appear requesting this temporary code.
            1. If the code provided is incorrect, the user cannot proceed with any changes.
            2. If the code provided is correct, a text box will be presented with a prompt for the user to enter their new password. There will also be another text box presented with a prompt to re-enter the password. Once the user is finished, they will click “Done”. The two text boxes will be compared to make sure they match.

If the contents of the text boxes do not match, the user will be prompted to try entering the new password again.

* 1. Website settings
     1. Switch between light and dark mode.

1. Study deck page
   1. View all study decks
      1. Each study deck will be displayed in individual containers.
   2. Button to create a new study deck
      1. Dialog box will appear asking the user to create a new study deck or cancel.
   3. Edit study deck
      1. Add flashcard
         1. The user will be prompted with a dialog box that will ask them if they want to add a flash card to the deck or to cancel.
      2. Delete flashcard
         1. The user will be prompted with a dialog box that will ask them if they want to delete a flash card to the deck or to cancel.
      3. Edit flashcard
         1. The user will be prompted with a dialog box that will ask them if they want to edit the flash card that is selected or to cancel.
2. Study session page
   1. Flashcard display
      1. The first flashcard from the selected study deck will be displayed to the user.
      2. The user will have the option to click the flashcard to display the opposite side.
         1. Once the flashcard is clicked, an animation will be triggered to display the opposite side.
   2. Correct choice
      1. A button will be displayed to indicate a correct guess by the user.
         1. If the user guesses correctly, they will click the button and the next flashcard in the study deck will appear.
   3. Incorrect choice
      1. A button will be displayed to indicate an incorrect guess by the user.
         1. If the user guesses incorrectly, they will click the button and the next flashcard in the study deck will appear.
   4. Study session score
      1. The study session score will be displayed to the user.
      2. If the user selects the correct button, the score will be increased.
      3. If the user selects the incorrect button, the score will not change.
   5. Correct answer streak
      1. If the user answers correctly twice or more consecutively, a correct answer streak will be displayed to the user indicating the number of consecutive correct answers in the current study session.
   6. End study session
      1. A button will be displayed to end the current study session.
         1. If clicked the current study session will end and the results of the study session will be displayed.
   7. Results of study session
      1. A results screen will display the following:
         1. Study session score
         2. Correct answer streak
         3. Name of the study deck
3. Firebase
   1. Database
      1. User
         1. The following user information will be stored:
            1. User ID
            2. Username
            3. User password
            4. User score
            5. User settings

Light / dark mode

* + 1. Study deck
       1. The following study deck information will be stored:
          1. Study deck name
          2. Number of flash cards in study deck
          3. Associated flash cards
    2. Flashcards
       1. The following flashcard information will be stored:
          1. Flashcard question
          2. Flashcard answer
  1. User authentication
     1. Provided via Firebase username and password authentication function call.
  2. Website hosting
     1. Set up project using the Firebase CLI (Command Line Interface).
     2. Connect directory to Firebase project with “Firebase init” in the Firebase CLI.
     3. Deploy the web application onto the server with “Firebase deploy” in the Firebase CLI.

Updated Timeline

|  |  |  |
| --- | --- | --- |
| Week | Task Name | Assigned To |
| Aug 29 – Sep 4 | Create UML Diagram | Adrian |
|  | General design of the UI | Brandon |
|  | Create React project and upload it to GitHub. | Josh |
| Sep 5 – 11 | Node.js setup | Joseph |
|  | Express setup | Josh |
|  | Firebase API setup | Brandon |
| Sep 12 - 18 | Home page: layout/welcome message | Adrian |
|  | Home page: project name | Joseph |
|  | Navigation bar: buttons | Brandon |
| Sep 19 - 25 | Navigation bar: links | Joseph |
|  | Search bar | Adrian |
|  | \*Dark mode | Josh |
| Sep 26 – Oct 6 | Study deck page: create flash card | Joseph |
|  | Study deck page: delete flash card | Brandon |
|  | Store study deck in database | Josh |
| Oct 3 – 9 | Study session page: flashcard | Adrian |
|  | Study session page: flashcard animation | Joseph |
|  | Scoring system | Adrian |
| Oct 10 – 16 | \*High score system | Josh |
|  | \*Correct answer streak | Brandon |
|  | \*Hint system | Josh |
| Oct 17 – 23 | Registration page | Adrian |
|  | Login page | Brandon |
|  | Store user in database | Joseph |
| Oct 24 – 30 | User authentication | Adrian |
|  | Profile page | Josh |
|  | Editing profile information and updating profile | Brandon |
| Oct 31 – Nov 6 | Finish critical operations of app | All |
|  | Any remaining features | All |
|  | Begin poster | All |
| Nov 7 – 13 | Prepare Presentation | All |
|  | Finalize poster | All |
|  | Any remaining features | All |
| Nov 14 – 20 | Project demo | All |
|  | Any remaining features | All |
|  | Begin final report | All |
| Nov 21 – 27 | Any Remaining Maintenance/Debugging for the App’s Necessary Operations | All |
|  | Work on final report | All |
|  | Any Remaining Maintenance/Debugging for the App’s Necessary Operations | All |
| Nov 28 – Dec 6 | Final report submissions | All |
|  | Project demo | All |
|  | Project finalization | All |