

**1.Team Number:** 15-1

**2.Team Name:** Coding Baddies

**3.Team Members:**

- Jack Toenjes, Github: Ponippp Email: jato9234@colorado.edu
- Calvin Wagner, Github: CalvinWagner05, email: cawa9142@colorado.edu
- Wyatt Lyda, email: wyly3647@colorado.edu, github: wyatt-lyda
- Christina Fernandez, Github: chfe8281 email: chfe8281@colorado.edu
- Benjamin Willcutt, Github: benwillcutt, email: bewi8864@colorado.edu
- Kaitlyn Brown, Github: TenorPanther, email: kabr3253@colorado.edu

**4. Application Name:** Coding Buddy

**5. Application Description:**

We want to create a website where users can log on to study CS topics in various coding languages with a friend or alone. We think it would be interesting to build an application that combines the ideas of the structures of Quizlet and Leetcode applications so that students can become familiar with CS terminology and gain practical coding experience.

There will be coding problems with starter code, problem description, and test cases. The user can choose to code in different languages. For each problem they get correct, they earn points. They also have the option to time themselves by clicking a button up top to set a timer. Then they'll show up on the leaderboard on the homepage (if they score well enough) and their user profile. There will be multiple choice quizzes for CS concepts. Depending on the user's answers and score, they get personalized flashcards to review what they got wrong. Flashcards will contain CS definitions and syntax and are available for users to practice with. Users can also make their own flashcards.

Our website covers different CS topics and allows users to practice coding while also learning CS conceptually. It ideally has questions for different coding languages. You can also challenge what you have learned through coding challenges that all users can compete in and receive awards for participating in.

**Key Features Summary:**

- Use external API for coding problems/test cases
- Starting code
- Timed coding competitions
- Different programming languages
- Tracking how many problems done
- Reward system
- Badges earned
- Add a dashboard
- Multiple Choice quiz
- Review flashcards

**6. Audience:**

The specific audience we are targeting is aspiring computer science students and software developers. The age group would primarily be high school and college students. The project encourages the audience to study and understand core principles of computer science through flashcards and hands-on problems in an easy and fun way.

**7. Vision Statement:**

For students who are struggling to learn how to code, Coding Buddy is an online tool that makes learning to code SO FUN. Unlike Quizlet or LeetCode, our product is collaborative, encouraging users to interact and compete with other students.

**8. Version Control:**

Github Repository Link: <https://github.com/chfe8281/Coding-Buddy>

**9. Development Methodology:**

We are implementing aspects of Agile methodologies. We are using the Github projects board as a kanban board. As we plan, we will add tasks to our to-do list. Members are assigned to the tasks that they are responsible for. Tasks reserved for the group to complete as a whole as noted as such. As members work on and complete tasks, each task will be moved to the corresponding column. We will be creating epics and user stories to break down and describe the tasks in order to keep them organized, achievable, and relevant.

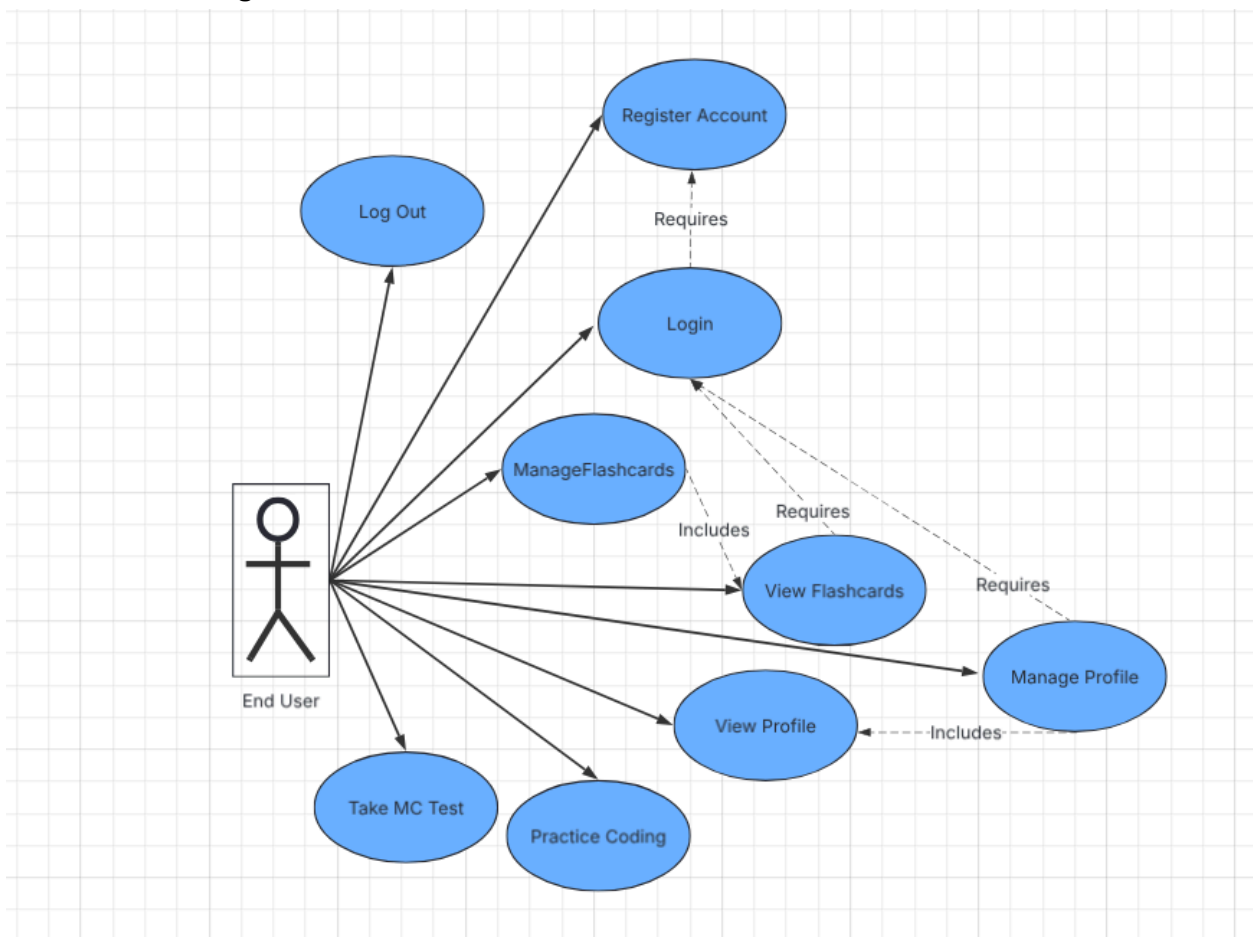
**10. Communication Plan:**

We are using a Discord group chat for team communication.

**11. Meeting Plan:**

- Meetings with TA: Mondays at 3:00pm over video chat
- Group meetings: Mondays at 2:00pm in-person at Norlin Library

## 12. Use Case Diagram:



### 13. Wireframes:


#### Login/Register


**Login Page**

nav bar to get to diff. pages

Home Quiz Practice Profile

**LOGIN**

username 

password 

☐ Remember me forgot password?

**LOGIN**

Don't have an account? Register

→ Login HTML Form

→ authenticate input, messages for wrong pass. or username or not all fields filled

→ press login to submit form data


→ takes you to register page


**Register Page**


nav bar to get to diff. pages


Home Quiz Practice Profile

**Sign Up**

username 

email 

name 

password 

**Register**

Already have an account? Return to login

→ Signup HTML Form

→ authenticate input, all fields must be filled, or a message appears


→ press register to submit form data

→ takes you to login

#### Home Page:

**General Home Page**

Nav Bar

Home MC Test Practice Code Flash Cards  ← top element to go to page

**Coding Buddies** ← Title

Slogan?

Description of mission/ how it works

image

image

**How MC Test Works:**

Title of description has link embedded to MC Test Page

image

**How Practice Code Works:**

Title of description has link embedded to PC Page

image

**How flash Cards work:**

Title of description has link embedded to FC page

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← footer

Profile

- displays username

- article stream

- main with intro stats

## Profile:

Home	Quiz	Coding Practice	Profile
------	------	-----------------	---------

Profile picture here??

**FirstName LastName**  
Username  
email@example.com

You are on a  
**3**  
day streak!

You have earned **67** points from coding problems!  
  
This puts you in the top **32%** of learners!

Edit Profile

## Edit Profile:

Home	Quiz	Coding Practice	Profile
------	------	-----------------	---------

Profile picture here??

**FirstName LastName**  
Edit Name  
Username  
Edit Username  
email@example.com  
Edit Email

Update Profile Picture

Save

Multiple Choice Test:

MC test wire frame

Question 1:

Select one.

☐ Option 1

☐ Option 2

☐ Option 3

☐ Option 4

Question 2:

Select all that apply.

☐ Option 1

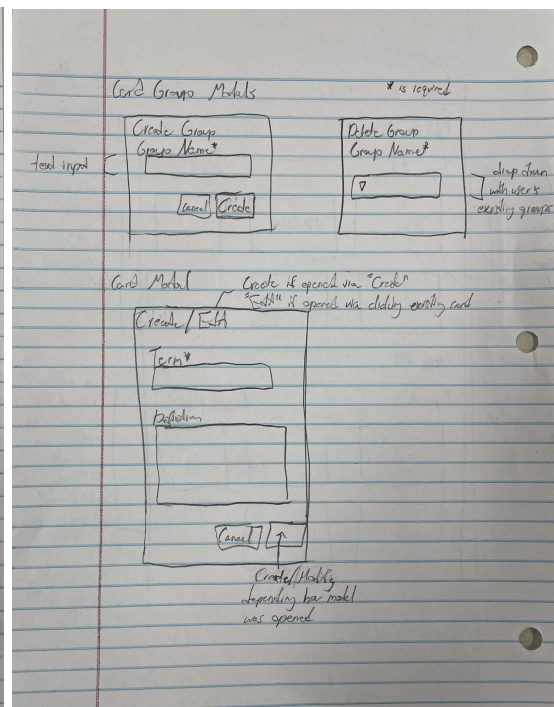
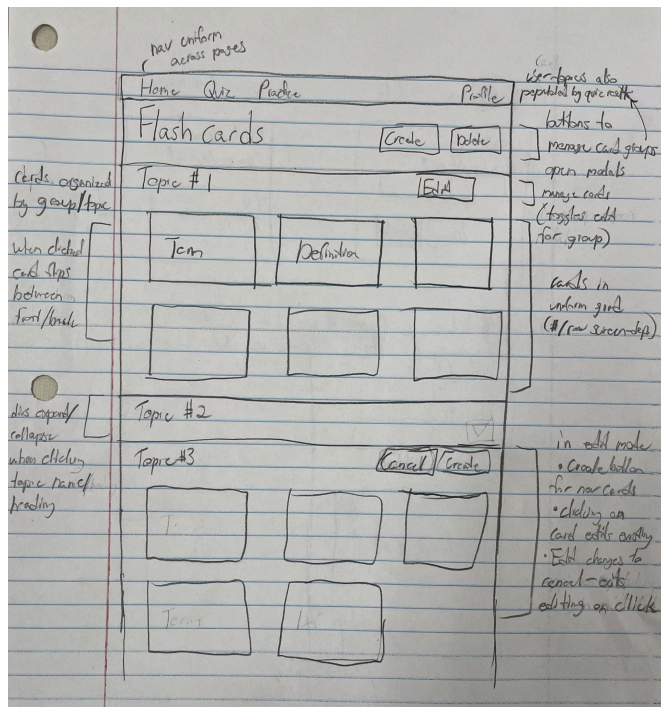
☐ Option 2

☐ Option 3

☐ Option 4



## Flashcards Overview and Modals:



## Coding Exercise:

Home

Quiz

Coding Practice

Profile

Timer 1:00:00

Coding Example:  
Definition, return values,  
description.

Example with values and  
return

Starting code here...

Submit

Coding Exercise w/ message (Note: only one message appears at a time and spans page):

Home	Quiz	Coding Practice	Profile
------	------	-----------------	---------

Timer 1:00:00

Coding Example:  
Definition, return values,  
description.

Example with values and  
return

Starting code here...

Submit

Error message:  
This appears if the solution is incorrect  
Could have something showing what line  
was incorrect or just a general message.

Success Message:  
Appears if the solution passed all tests