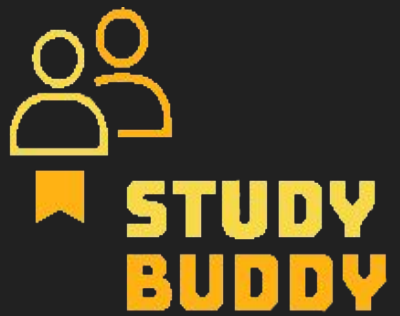
Team Study Buddy
CS 501

Ansh Gupta, Khalid Almaimouni, Richard Chen, Joseph Mitchell

Overview/Introduction

- Create or join study groups based on similar classes, majors, colleges, etc.
- Recommends most suitable study partners for you (Recombee API)
- Can purchase tutoring sessions from other students (Stripe API)
- Chat functionality (can share pictures too) (Google Firebase)



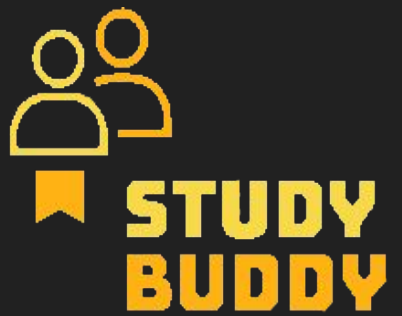
Motivation/Purpose

This app was born as an answer to a problem that literally every student faces at some point in their college life: finding friends to study with.

Walking into a class of hundreds of new people can be a very intimidating and overwhelming experience. All of us have personally faced this problem. An app that would help you navigate through all this anxiety by finding the right people for you with just the click of a few buttons would be like a dream come true. Hence, we came up with the Study Buddy App.

App Walkthrough

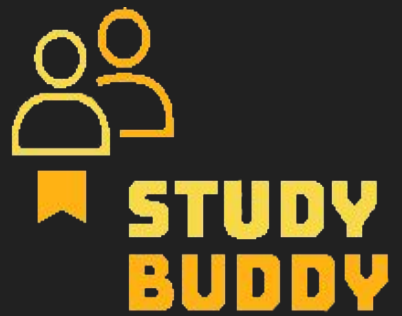
Demo Time!



Implementation Details: Recombee API

The Recombee API is an AI powered recommendation engine that helps us display the most suitable study partners for the user to select based on their common classes, class standing, major and college.

Recombee was originally built for e-commerce sites, but we have adapted it nicely to our purpose, which is recommending students to each other based on common traits.



Implementation Details: Recombee API

```
client.send(new AddUser(curUserId));
```

```
client.send(new SetUserValues(curUserId, curUserInfo));
```

Users 18 users

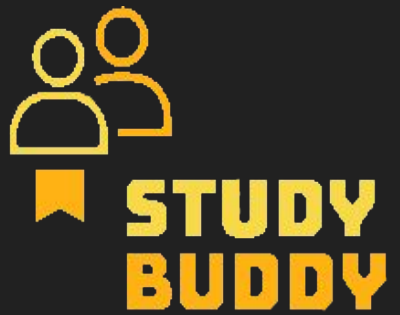
Manage properties

userId STRING	classStanding INT	college STRING	major STRING
102660233045601778209	3	CAS	Computer Science
10281745680930148363 5	1	CAS	History
103249914598578734852	4	CAS	Computer Science
104338072491031052028	0	CAS	Economics

Implementation Details: Stripe API

The Stripe API allows the user to make, receive and manage their payments. We primarily implemented Stripe for the payment services for the tutoring sessions.

Stripe requires the use of a server to securely create credit transactions



Stripe API

```
app.listen(4242, () => console.log("Node server listening on port 4242"));
```

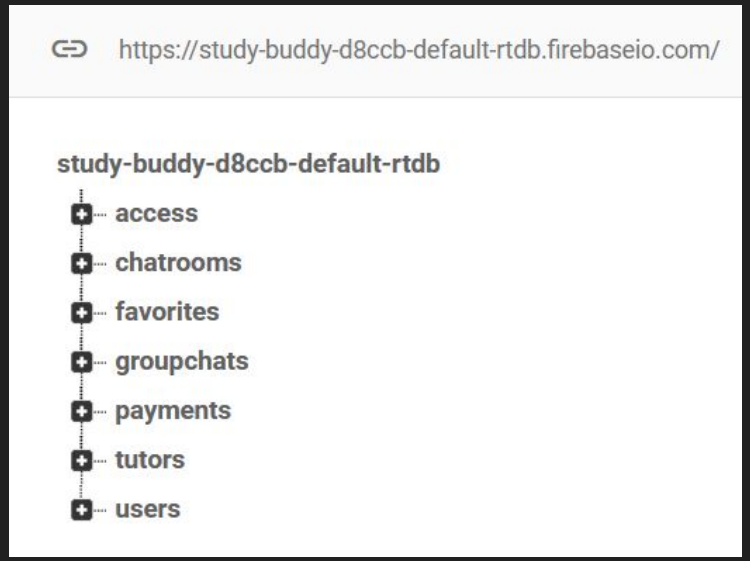
```
const stripe = require("stripe")('sk_test_51JwUnKCK34XwtTfpx8imoFRh6Uc
app.use(express.static("."));
app.use(express.json());
```

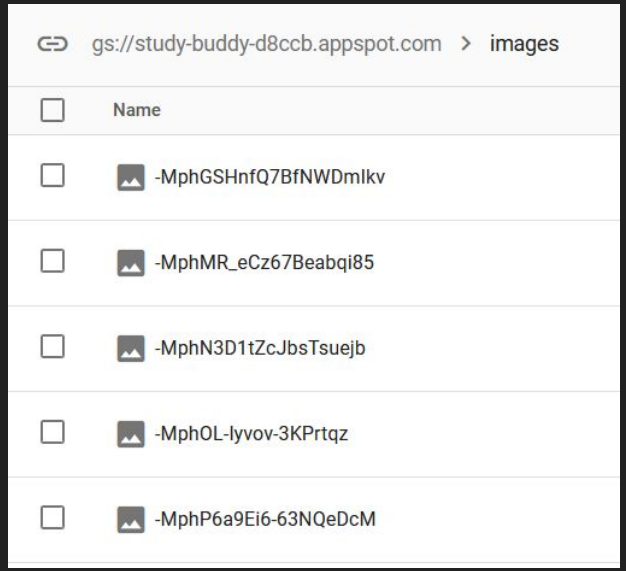
```
// Create a PaymentIntent with the order amount and currency
const paymentIntent = await stripe.paymentIntents.create({
  amount: calculateOrderAmount(items),
  currency: currency
});

res.send({
  clientSecret: paymentIntent.client_secret
```

Implementation Details: Google Firebase

We implemented Google Firebase for secure login, data management and to implement the chat functionality between the users.

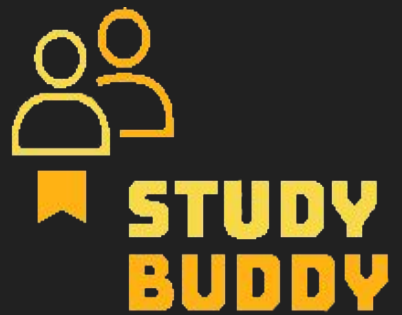




STUDY BUDDY

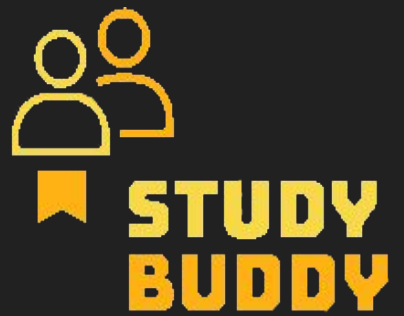
Roadblocks/Surprises and Workarounds

- API Problems: We ran into many problems with our APIs.
  Recommendation Engine: First, *Recommendation Raccoon API* but it only available as a NodeJS module. So switched to the *Recombee API*.
  Payment API: First, *Stripe API*, but problem with server. Switched to *Paypal API*. Finally *Stripe API*, and it worked!
- Sign in Problem: could not sign in without manual Firebase SHA1
  Temporary Workaround - use APK to download the app.



Roadblocks/Surprises and Workarounds

- Integration Problems/API Conflicts: Recombee API caused conflicts when we integrated Stripe API. There were now two classes with the same name, meaning that the program started using the wrong class when run.
- Workaround: We rewrote a small part of the Recombee API's code to not use the conflicting class at all, thus resolving the conflict.



Team 

Thanks You!