

Team 6

7th Dec, 2023

COLLEGE STREET

Open source marketplace for students

TODAY'S AGENDA

1

Introduction

2

Project

3

Backend

4

Security

5

UI

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Frontend

7

Testing

8

Demo

9

Project

Team 6

7th Dec , 2023

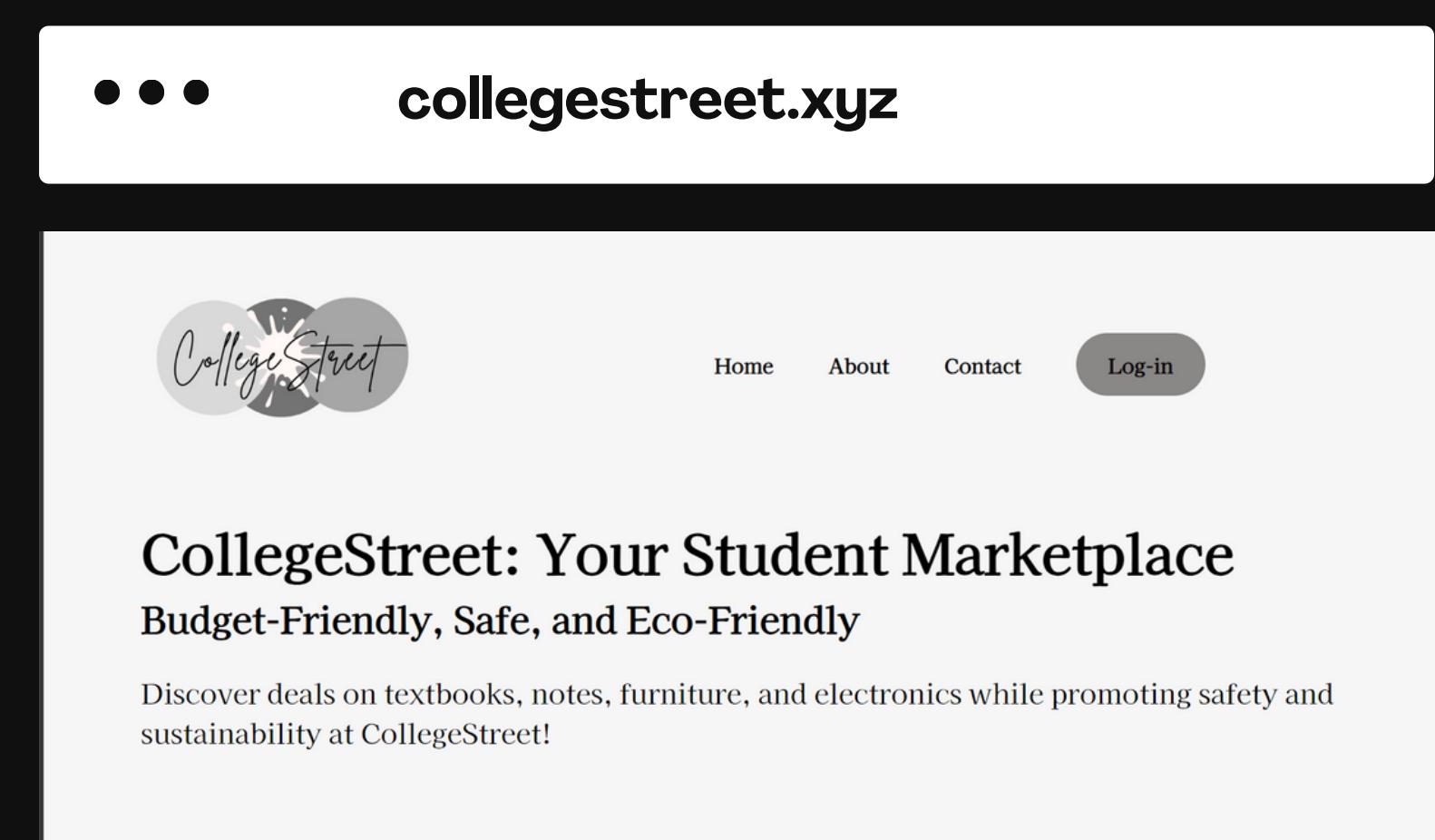
PROJECT OVERVIEW

by Aishwarya Raja

INTRODUCTION

collegestreet is a opensource marketplace for students

This project aims to connect students to buy and sell school-needs. This community-led platform only allows verified students to sell and buy books, notes, and many more.



The screenshot shows the homepage of the CollegeStreet website. At the top right, there is a navigation bar with three dots, the URL "collegestreet.xyz", and links for "Home", "About", "Contact", and "Log-in". Below the navigation bar is a large logo consisting of two overlapping circles, one light blue and one light green, with the text "CollegeStreet" written across them. To the right of the logo, the text "CollegeStreet: Your Student Marketplace" is displayed in bold, followed by "Budget-Friendly, Safe, and Eco-Friendly". A descriptive paragraph below states: "Discover deals on textbooks, notes, furniture, and electronics while promoting safety and sustainability at CollegeStreet!"

TEAM

• • •

collegestreet.xyz/team

Team Lead

Theerarun Tubnonghee
(Steve)

Configuration Lead

Aishwarya Raja

Backend Lead

Subhajit Das
(Jeet)

Frontend Lead

Chenyang Lyu
(Nick)

QA Lead

Nidhi Desai

Design Lead

Vedant Gupta

DevOps/Security Lead

Yin Xiancheng (Xanthus)

FEATURES

• • •

collegestreet.xyz/features

- Any student can Register to our platform (for now, only BU students are allowed)
- In-build verification process to keep the community safe.
- Users can create a post to sell an item (i.e. Books, Notes or anything that is needed in student life)
- Users can Delete and/or update their posts
- Users can search for any specific item on the marketplace to buy it
- Users can filter through the pool of books, notes, and whatnot
- User chat system to interact with your buyer/seller

Copy a sticky
note, then write
your thoughts.

Copy a sticky
note, then write
your thoughts.

PROGRESS

• • •

collegestreet.xyz/weworkedhard

- In 3 Iterations, we worked on 84 issues (37 closed already, 47 are about to be closed)
- We solved a total of 17 bugs which are untracked - shoutout to Vedant and Jeet
- We did manual testing for both backend and frontend code
- We wrote unit testing for each feature when we were not happy with our manual testing result.
- Decided on a new contribution standard to keep everyone in sync with each other work
- We learned and experimented with new technologies

47 Open ✓ 37 Closed

MAJOR RELEASES

• • •

collegestreet.xyz/changelog

- Build in-house Authentication system - by Jeet
- Migrated our authentication from Auth0 - by Jeet
- User Registration REST API - by Aishwarya
- User Profile Info REST API - By Aishwarya
- Registration restriction to BU email (critical) - by Aishwarya
- Create product REST APIs and Cloudinary CDN - by Xanthus and Jeet
- Frontend code Deployment on Vercel (WIP) - by Xanthus
- backend Infra Deployment on DigitalOcean- By Jeet
- Redesign create post model - by Vedanth

MAJOR RELEASES

• • •

collegestreet.xyz/changelog

- Landing page - by Steve and Nidhi
- Implemented Search feature v0 - by Vedant
- Login and Registration v0 - by Vedant
- New Login and Registration - by Vedanth and Steve
- Team page (WIP) - by Nick
- Chat feature - by Nick
- Filter feature v0 - by Vedant
- Create/update/ delete post - by Steve, Nick, Vedant
- E2E testing using Cypress- by Nidhi
- Pytest - by Nidhi and Jeet

MISC

• • •

collegestreet.xyz/misc

- wrote 2498 lines of code overall
- we are serious - we bought a domain and made it live on the internet
- Setup automatic testing
- Learned technologies like Django-rest framework, pytest, deployment like technologies

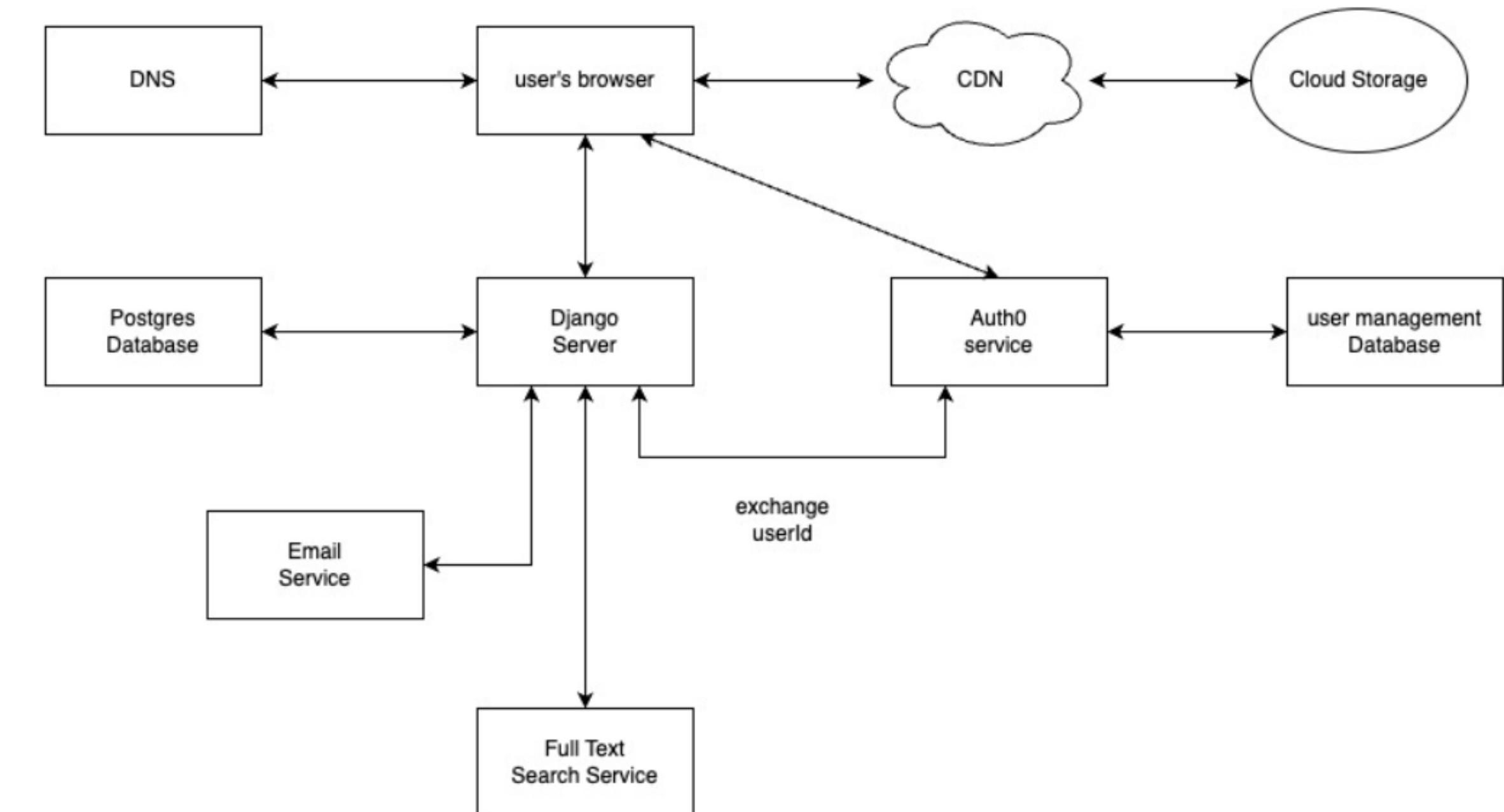
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BACKEND

by Subhajit Das (Jeet)

ARCHITECTURE



THIRD-PARTY SERVICES

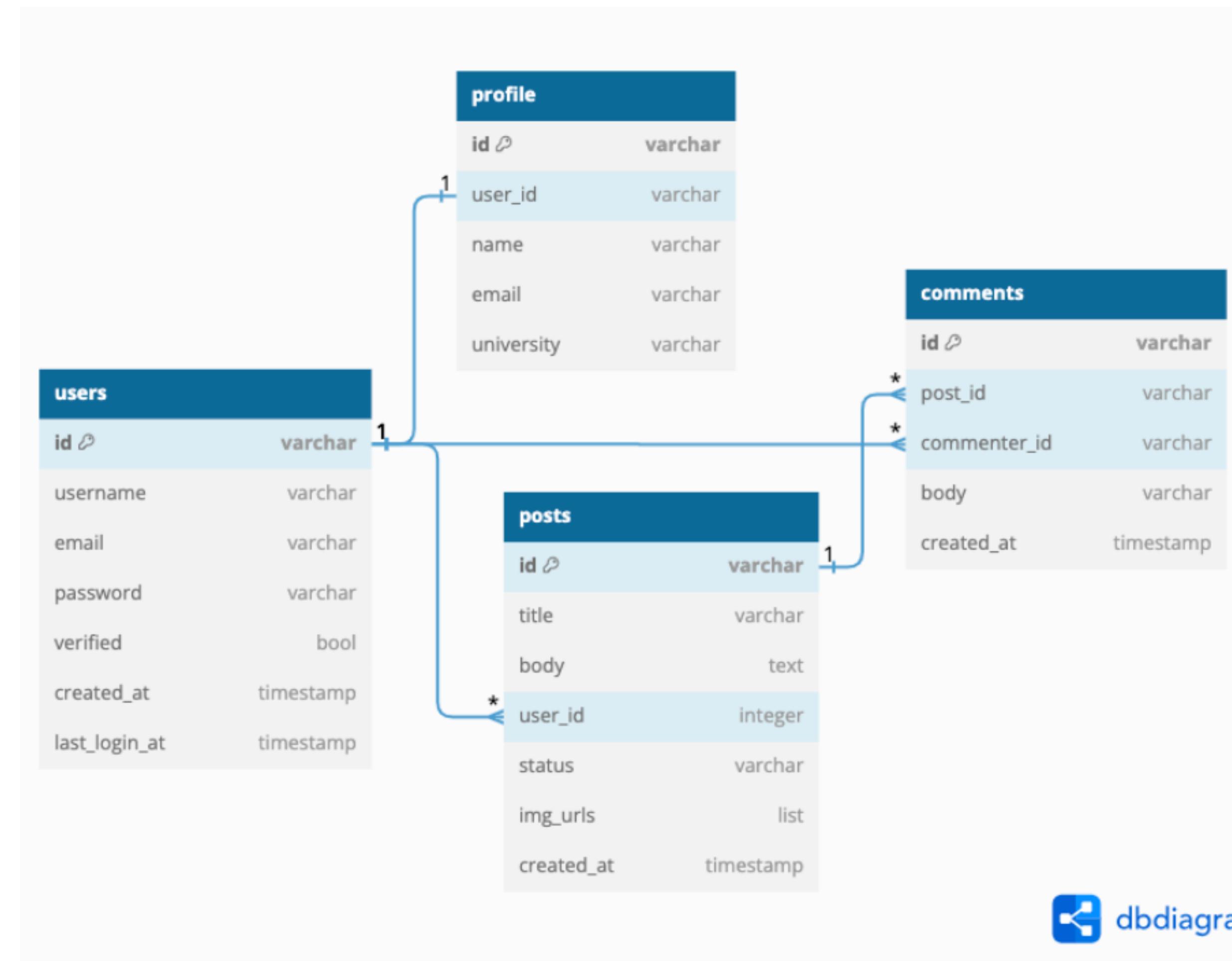
• • •

collegestreet.xyz/usedservices

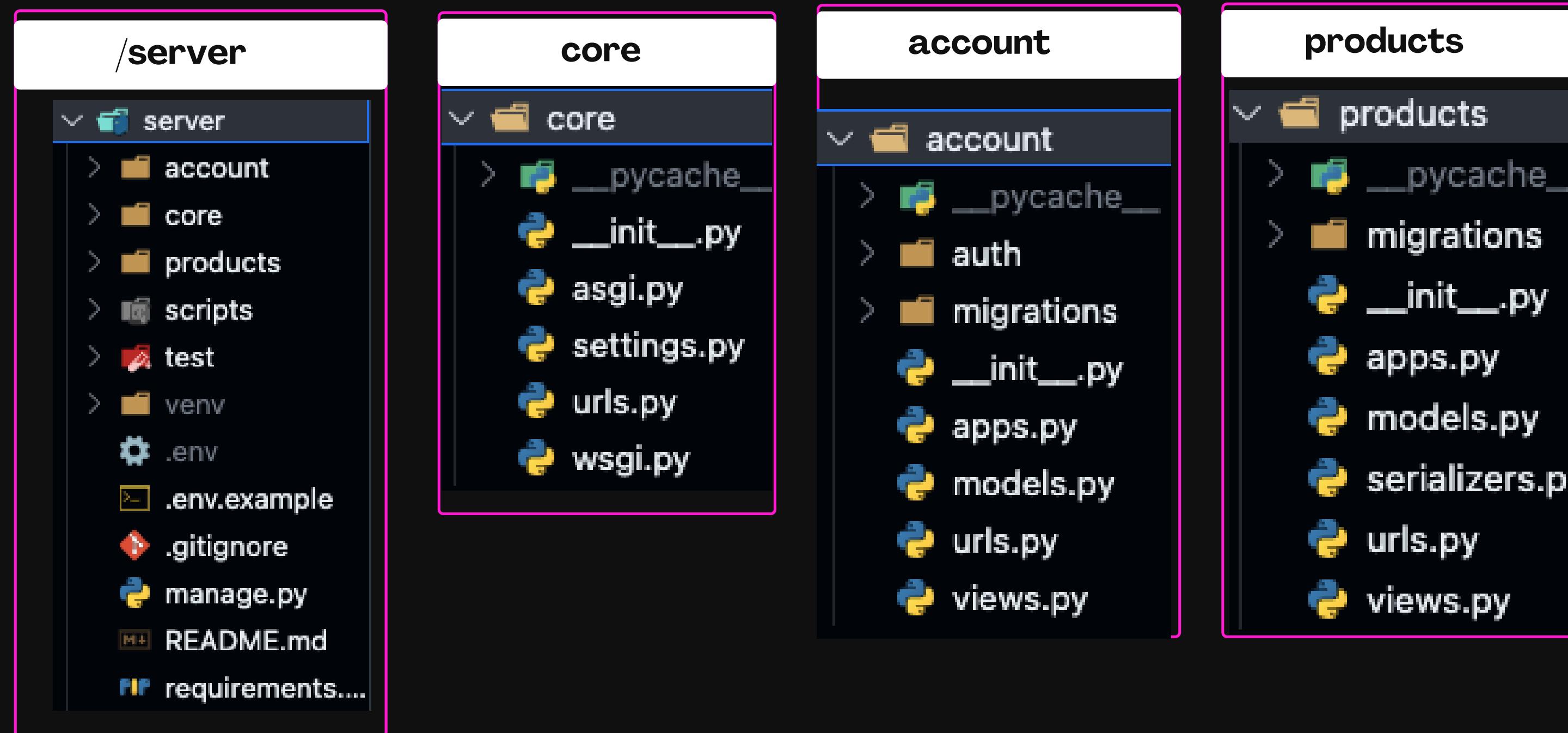
- Supabase - Database Hosting
- Vercel - Client hosting
- DigitalOcean - Backend infra hosting
- Clouinary as our CDN
- Auth0 - Authentication (Dropped it later)

DATABASE DESIGN

Profile
users
posts
comments



FOLDER ARCHITECTURE



MAJOR APIs

• • •

`collegestreet.xyz/apis`

- **POST /users/register**
- **POST /users/login**
- **POST /users/forgetpassword**
- **GET /users/user/info**
- **GET /products**
- **POST /product/create**
- **POST /product/edit**
- **POST /product/delete**

CODE EXAMPLES

• • •

api.collegestreet.xyz/users/login

```
class CustomTokenObtainPairView(TokenObtainPairView):
    def post(self, request, *args, **kwargs):
        user = CustomUser.objects.get(email=request.data["email"])
        if not user.is_active:
            return Response({'message': 'User is not active.'},
                           status=status.HTTP_401_UNAUTHORIZED)
        return super().post(request, *args, **kwargs)

class AccountView(APIView):
    permission_classes = (IsAuthenticated,)
    parser_classes = [JSONParser, MultiPartParser, FormParser]

    def get(self, request):
        serializer = UserAccountSerializer(request.user,
                                           many=False)
        return Response(serializer.data, status=status.HTTP_200_OK)
```

CODE EXAMPLES

• • •

api.collegestreet.xyz/users/login

```
class CustomUser(AbstractBaseUser, PermissionsMixin):
    username = None
    name = models.CharField(max_length=100)
    email = models.EmailField(max_length=255, unique=True)
    is_active = models.BooleanField(default=False)
    date_joined = models.DateTimeField(auto_now_add=True)
    last_login = models.TimeField(auto_now=True)
    objects = UserProfileManager()

    USERNAME_FIELD = 'email'
    REQUIRED_FIELDS = ['name']

    def __str__(self):
        return self.email

    class Meta:
        db_table = 'users'
```

DEVOPS WORKS

• • •

collegestreet.xyz/apis

- **Github workflow for Pull request - thanks to Aishwarya**
- **feature branch contribution standard and branch security - thanks to Aishwarya**
- **Webapp deployment and management on Vercel - Xantus**
- **Database Migration - Jeet and Xantus**
- **Backend Infra deployment on DigitalOcean - Jeet**

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SECURITY

by Yin Xiancheng (Xanthus)

SECURITY DESIGN

• • •

collegestreet.xyz/security

User Authentication

- **Registration**

- Users provide .edu email address only and create a password.

- **Email Verification**

- An email verification link is sent to the user's edu email address. User verifies the email using provided link in the email to activate the account.

- **Password**

- Passwords are securely stored in the system using cryptographic hashing.

SECURITY DESIGN

• • •

collegestreet.xyz/security

- **Data Security**
 - **Password**
 - **Strong passwords are enforced.**
- **Data Storage**
 - **Secure database.**
- **Data Transmission**
 - **Secure connection HTTPS.**
- **Session Management**
 - **jwtToken.**

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FRONTEND OVERVIEW

by Theerarun Tubnonghee (**Steve**)

Team 6

7th Dec , 2023

USER INTERFACE DESIGN

by Theerarun Tubnonghee (Steve)



Welcome to College Street! 🙌

Please sign-in to your account and start the adventure

Email

Password



LOGIN

Don't have an account? [Sign up](#)

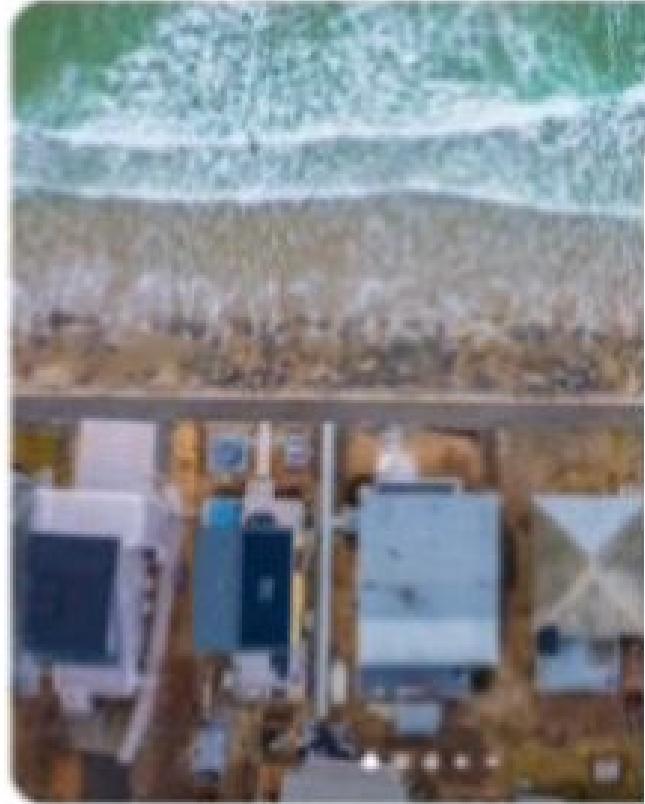
[Forgot password](#)



College Street

Display

test@gmail.com



Rockport, Massachusetts, US
Beach and sea views
2-7 Nov
₹34,579 night

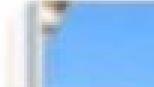


Upload Files



Drag & Drop your files here
or
Browse to upload files.

Only PDF, Excel and Jpeg formats with max file size of 10 MB

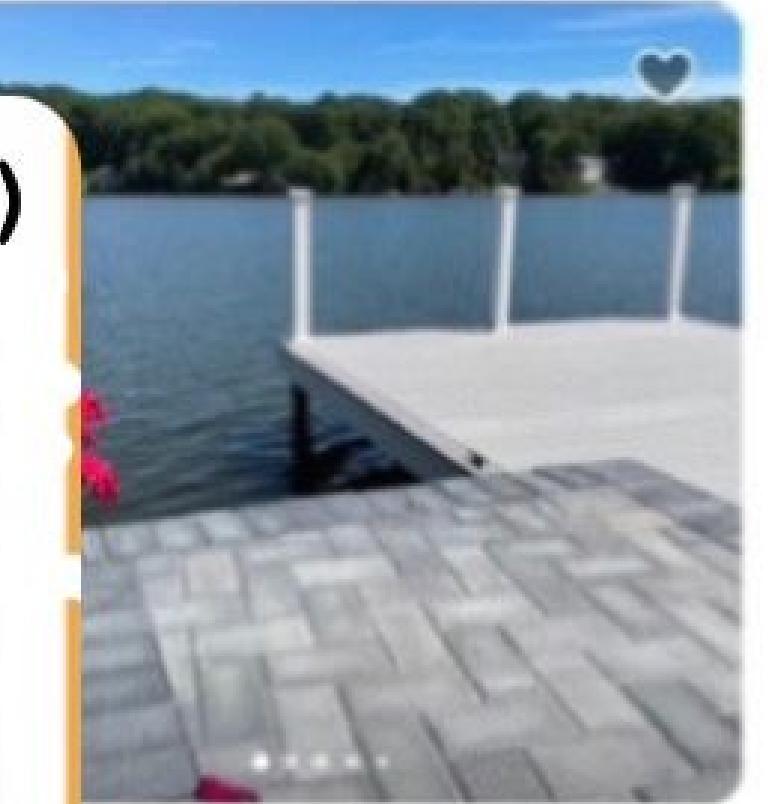


Title

(X)

Description

Price



Massachusetts, US ★ 5.0
Beach and sea views
2-7 Nov
₹34,579 night



Publish

Newly Renovated Ocean View 2 Bdrm Apt



Show all photos

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged.

Price: \$20

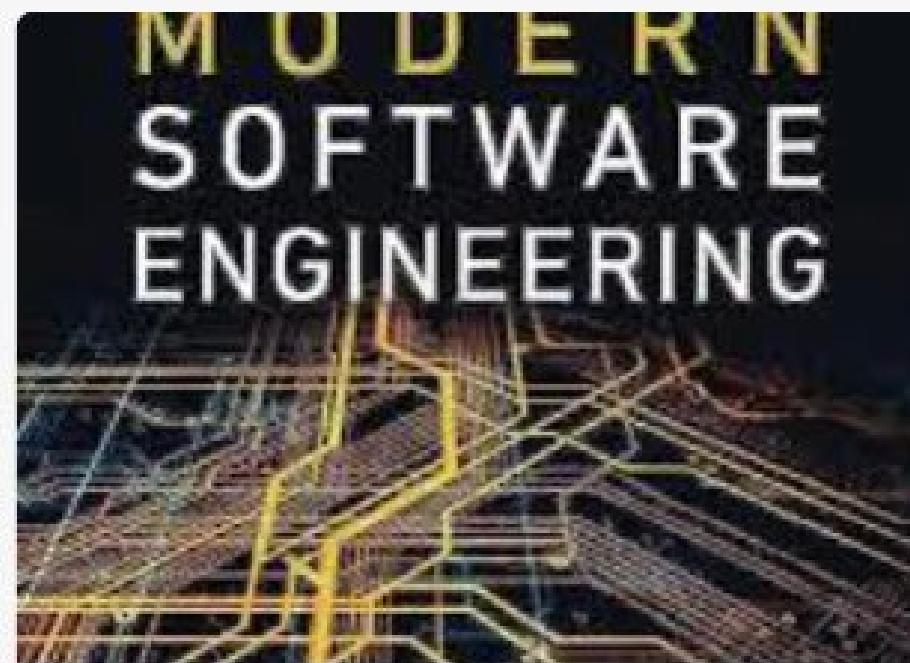


All ▾ Search Amazon

Marketplace

Create +

Logout



Software Engineering Textbook

Software engineering textbook for coursework
[xyzread more](#)

by Vedant



Algorithm Textbook

Algorithm textbook for coursework by Kevin Wayne. ...[read more](#)

by Vedant



Sofa Bed

Sofa Bed is in mint condition, hardly used.
[Sellin...read more](#)

by Steve





CoffeeStreet

Log In



Marketplace

Create +

Logout

Categories

Location

Price

Price Range



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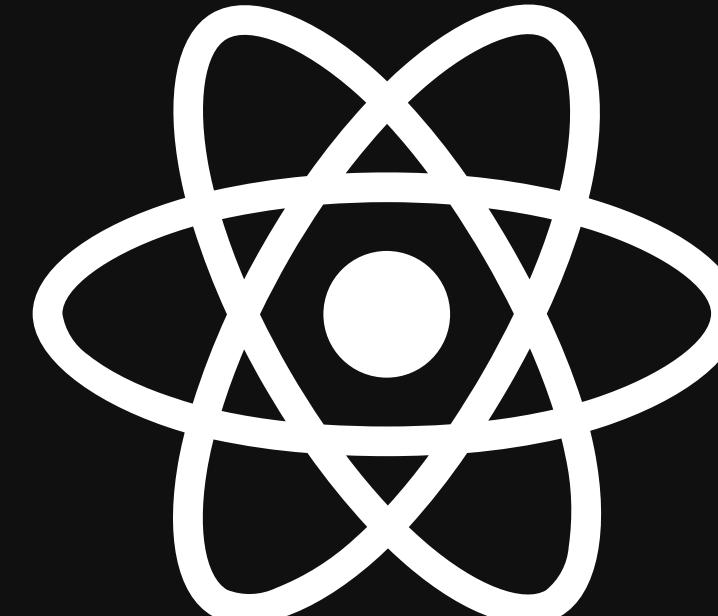
FRAMEWORK

• • •

collegestreet.xyz/usedFramework

ReactJS for our UI/UX design

React internally uses Flux design pattern.



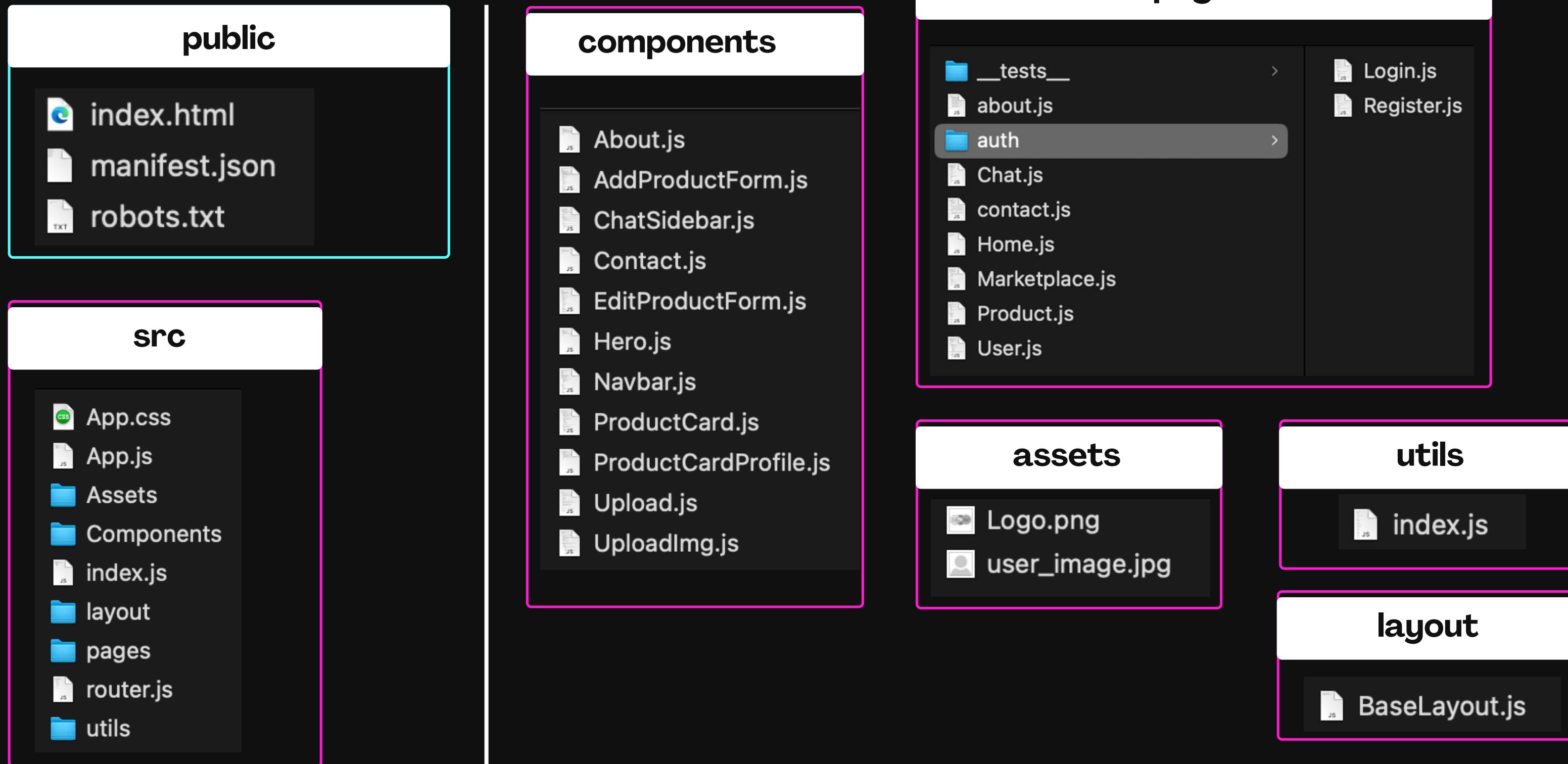
Team 6

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FRONTEND STRUCTURE

by Theerarun Tubnonghee (Steve)

FRONT END STRUCTURE



CODE EXAMPLES

• • •

collegestreet.xyz/marketplace

```
const [loading, setLoading] = useState(false);
const [products, setProducts] = useState([]);

useEffect(() => {
  const params = new URLSearchParams(window.location.search);
  const token = localStorage.getItem('token');
  if (!token) {
    navigate('/');
  }
  const fetchProducts = async () => {
    setLoading(true);
    try {
      const res = await axios.get(
        `/products?search=${params.get(
          'search'
        )}&location=${params.getAll('location')}&category=${params.getAll(
          'category'
        )}&min_price=${params.get('min_price')}&max_price=${params.get(
          'max_price'
        )}&sortBy=${params.get('sortBy')}`
      );
      setProducts(res.data);
      setLoading(false);
    } catch (error) {
      console.log(error);
      setLoading(false);
    }
  };
});
```

**API
/PRODUCTS?SEARCH**

**TO RETRIEVE
ALL AVAILABLE
POSTS**

OR WITH FILTERS

CODE EXAMPLES

• • •

collegestreet.xyz/addProductForm

```
const AddProductForm = ({ onClose }) => {
  const [loading, setLoading] = useState(false);
  const [uploadLoading, setUploadLoading] = useState(false);
  const [file, setFile] = useState(null);
  const [data, setData] = useState({
    title: JSON.parse(localStorage.getItem('productData'))?.title || '',
    description:
      JSON.parse(localStorage.getItem('productData'))?.description || '',
    price: JSON.parse(localStorage.getItem('productData'))?.price || '',
    images: JSON.parse(localStorage.getItem('productData'))?.images || [],
    authorId: JSON.parse(localStorage.getItem('user'))?.id,
    location: JSON.parse(localStorage.getItem('productData'))?.location || '',
    category: JSON.parse(localStorage.getItem('productData'))?.category || '',
  });
  // ... rest of the component code
};
```

CODE EXAMPLES

• • •

collegestreet.xyz/addProductForm

```
<CardBody className="overflow-hidden">
  <form className="flex flex-col gap-4">
    <Input
      isRequired
      label="Title"
      placeholder="Enter title of your product"
      type="text"
      autoFocus
      value={data.title}
      onChange={(e) => setData({ ...data, title: e.target.value })}>
    />
    <Textarea
      isRequired
      label="Description"
      placeholder="Enter description of your product"
      type="text"
      value={data.description}
      onChange={(e) =>
        setData({ ...data, description: e.target.value })
      }>
    />
    <Input
      isRequired
      label="Price ($)"
      placeholder="Enter price of your product"
      type="number"
      value={data.price}
      onChange={(e) =>
        setData({ ...data, price: Number(e.target.value) })
      }>
  </form>
</CardBody>
```

**LISTENING TO ONCHANGE
IN THE INPUT FIELDS**

SETDATA

CODE EXAMPLES

• • •

collegestreet.xyz/addProduct

```
const handleSubmit = async (e) => {
  try {
    setLoading(true);
    await fetch('/products', {
      method: 'POST',
      headers: { 'Content-Type': 'application/json' },
      body: JSON.stringify(data),
    });
    setLoading(false);
    localStorage.removeItem('productData');
    onClose();
  } catch (error) {
    console.log(error);
    setLoading(false);
  }
};
useEffect(() => {
  // save data to local storage
  localStorage.setItem('productData', JSON.stringify(data));
}, [data]);
```

POST SUBMISSION

METHOD POST

**API
/PRODUCTS**

CODE EXAMPLES

• • •

collegestreet.xyz/uploadImage

```
const handleUploadImage = async (e) => {
  const formData = new FormData();
  formData.append('file', file);

  try {
    setUploadLoading(true);

    await axios
      .post('/upload', formData)
      .then((res) => {
        console.log(res.data);
        setData({ ...data, images: [...data.images, res.data?.url] });
        setFile(null);
        setUploadLoading(false);
      })
      .catch((err) => {
        console.log('err', err);
        setUploadLoading(false);
      });
  } catch (err) {
    console.log(err);
  }
};
```

**UPLOAD IMAGE
/UPLOAD**

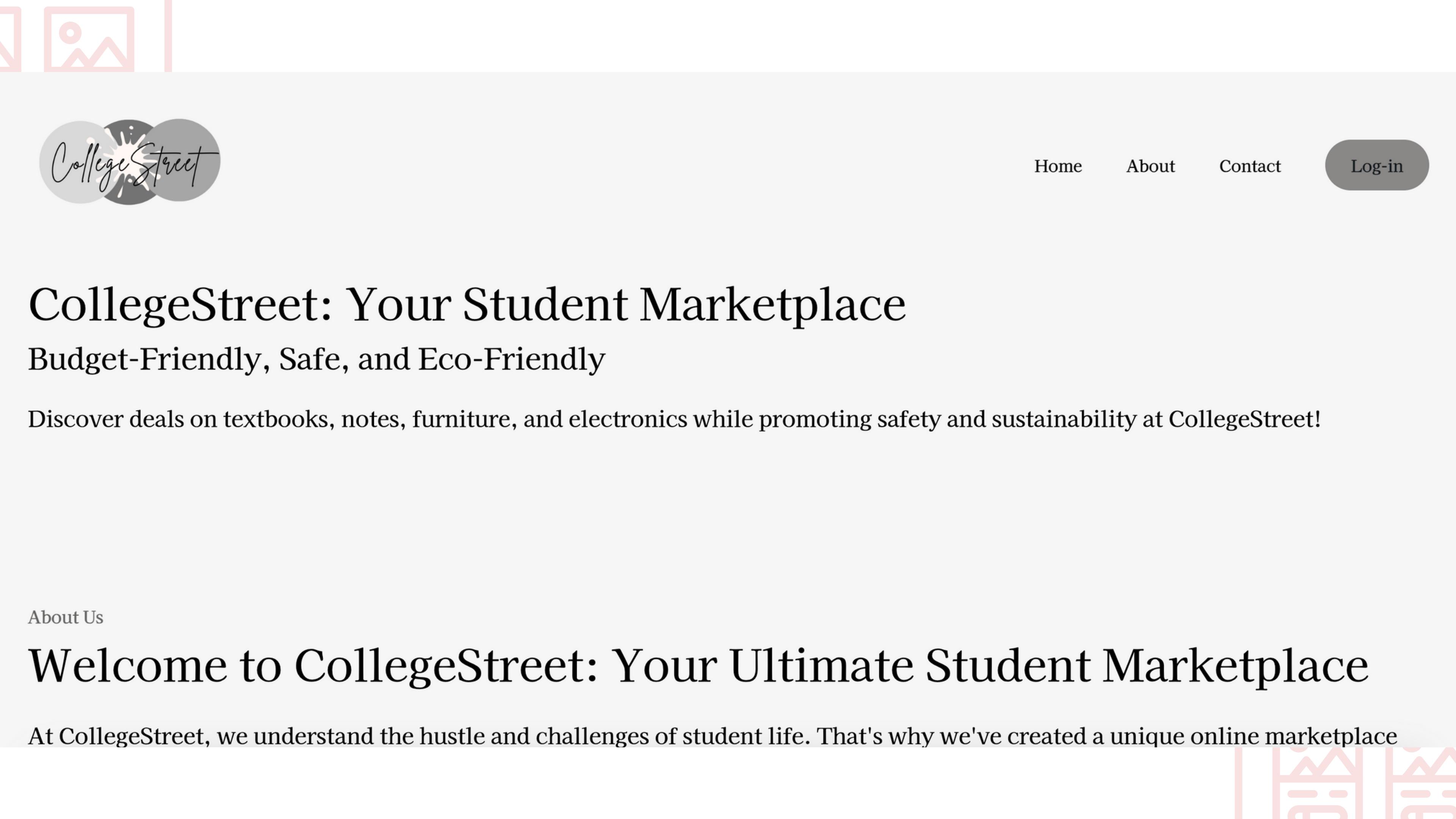


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7th Dec , 2023

FRONTEND IMPLEMENTATION

by Chenyang Lyu



CollegeStreet: Your Student Marketplace

Budget-Friendly, Safe, and Eco-Friendly

Discover deals on textbooks, notes, furniture, and electronics while promoting safety and sustainability at CollegeStreet!

About Us

Welcome to CollegeStreet: Your Ultimate Student Marketplace

At CollegeStreet, we understand the hustle and challenges of student life. That's why we've created a unique online marketplace

CollegeStreet

CollegeStreet: Your Budget-Friendly, Safe, and E

Discover deals on textbooks, notes, fu

About Us

Welcome to CollegeStreet Marketplace

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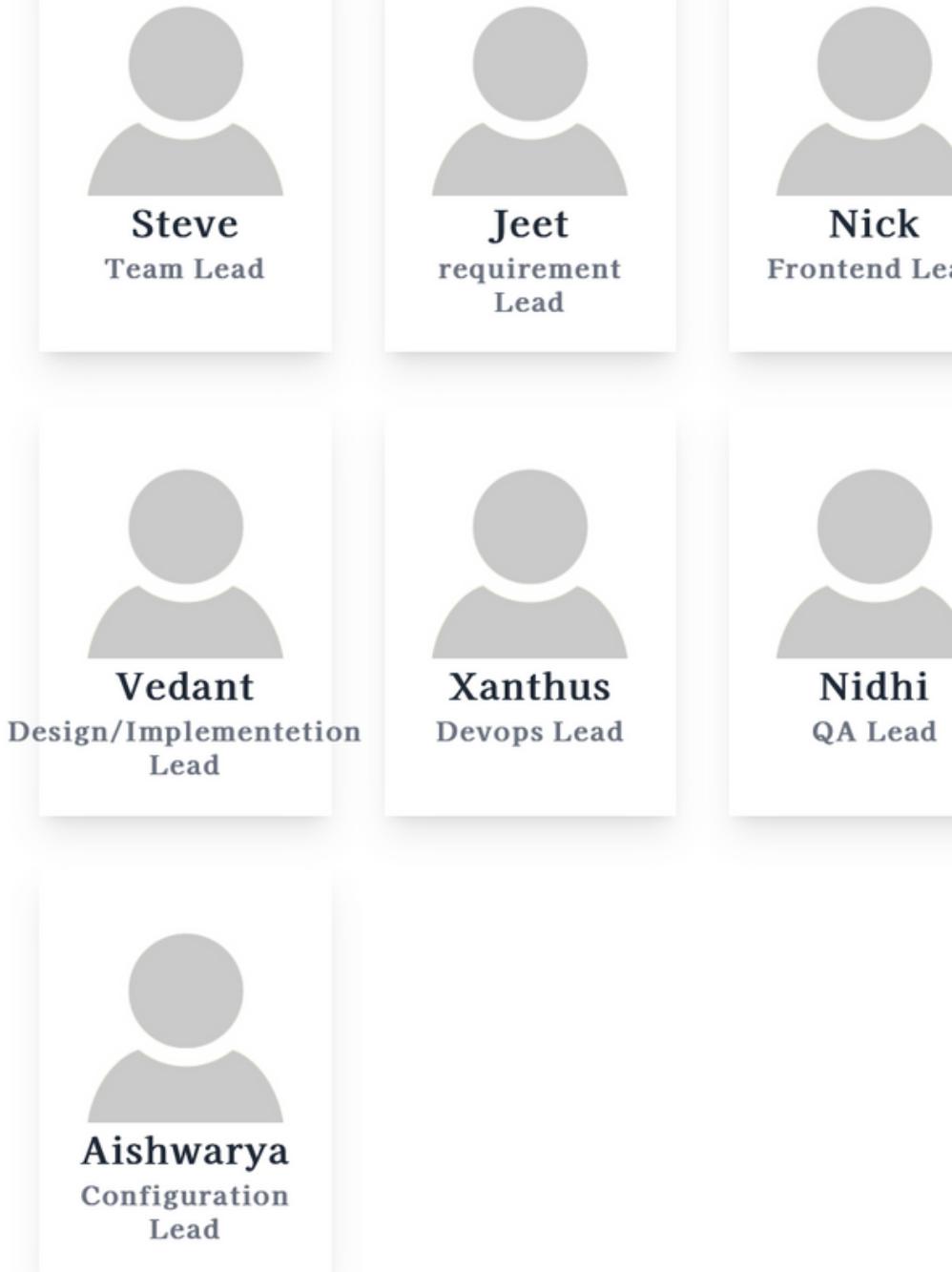
x

ome

About

Contact

Log-in





CollegeStreet: Budget-Friendly, Safe

Discover deals on textbooks, dorm supplies, and more!

About Us

Welcome to CollegeStreet: Your Ultimate Student Marketplace

At CollegeStreet, we understand the hustle and challenges of student life. That's why we've created a unique online

Home

About

Contact

Log-in

Contact Us

Name

John Smith

Email

john.smith@example.com

Phone

XXX-XXX-XXXX

Message

Write text here...

Submit



CollegeStreet: Your Student Marketplace

Discover deals on textbooks, notes, furniture, and more.

About Us

Welcome to CollegeStreet Marketplace

At CollegeStreet, we understand the hustle and challenges of student life. That's why we've created a unique online

Home About Contact

Log-in

Login

Join Us



Create an Account!

Please sign-up to your account and start the adventure

Name

Email

Password

Join

[Forgot password ?](#)



CollegeStreet: Your Budget-Friendly, Safe, and Eco-Friendly Marketplace

Discover deals on textbooks, notes, furniture, and more!

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Password

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safety and sustainability at CollegeStreet!



Filters

Search



Marketplace

Create +

Logout

Publish your Product

Title*

Enter title of your product

Description*

Enter description of your product



Click to select images

SVG, PNG, JPG or GIF

Please fill in this field.

Price (\$)*

Enter price of your product

Select category



Select location



Publish

Database Systems

A Pragmatic Approach

Database textbook

\$25

Books

© Commonwealth Avenue

Database textbook - by Mr. Data

Un...[read more](#)

by Vedant

wood...[read more](#)

by Vedant

DATABASE PRINCIPLES

fundamentals of design,
implementation, and management

xtbook

onwealth Avenue

x - A programming approach.

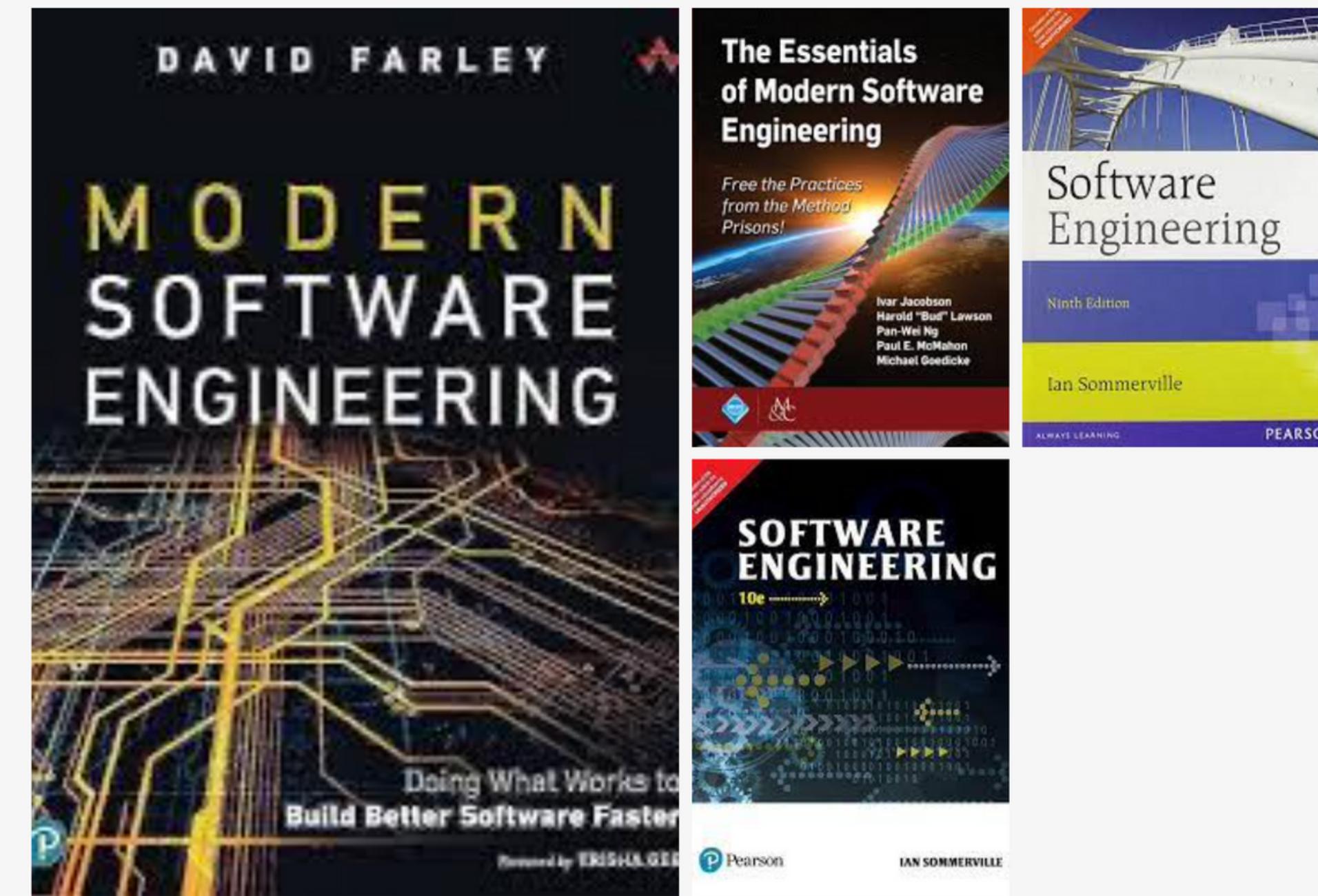
We wil...[read more](#)

by Vedant

Before



Software Engineering Textbook



Software engineering textbook for coursework xyz

Price:
\$ 20

After



Sofa Bed

House Furniture & Appliances, ⑨Huntington Avenue



Sofa Bed - Ultimate quality mattress and pure wood.

Price: \$ 75 





Sofa Bed

House Furniture & Applia



Edit Product



Title*

Sofa Bed



Click to select images

SVG, PNG, JPG or GIF



Description*

Sofa Bed - Ultimate quality mattress and pure wood.

Price (\$)*

75

Select category

House Furniture & Applia

Select location

Huntington Avenue

Save

Sofa Bed - Ultimate quality mattress and pure wood.

Price: \$ 75



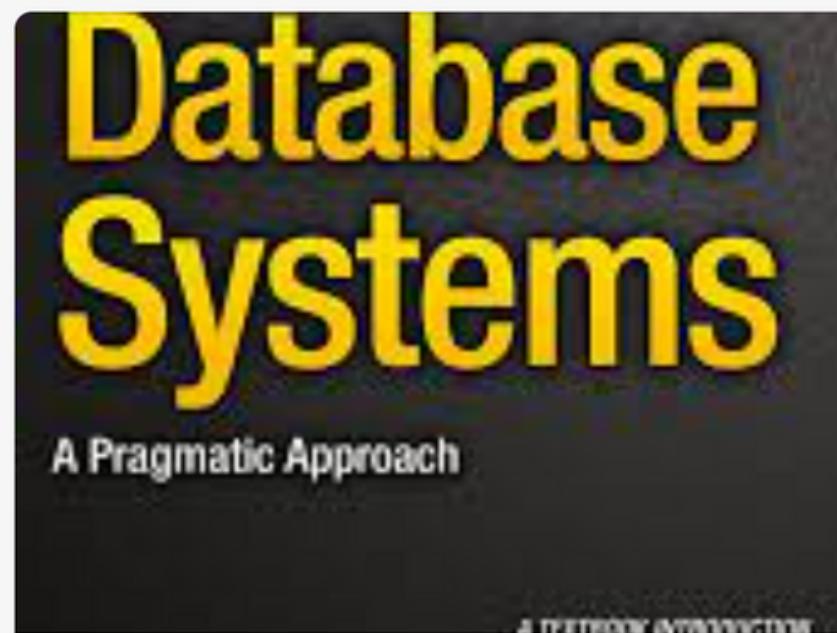
Filters Search



Marketplace

Create +

Logout



Database textbook

\$25

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Database textbook - by Mr. Database. Written in Un...[read more](#)

by Vedant



Sofa Bed

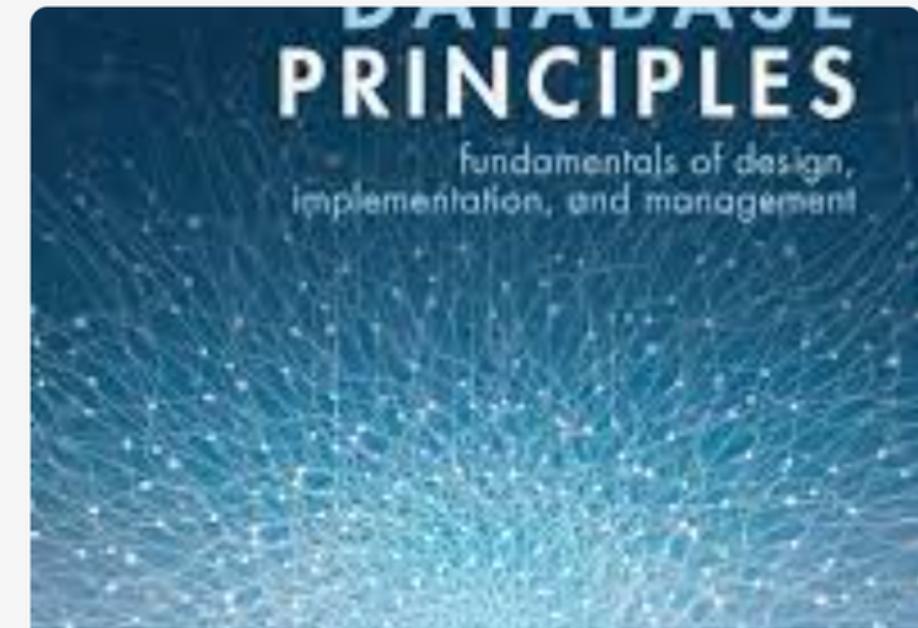
\$75

House Furniture & Appliances

© Huntington Avenue

Sofa Bed - Ultimate quality mattress and pure wood...[read more](#)

by Vedant



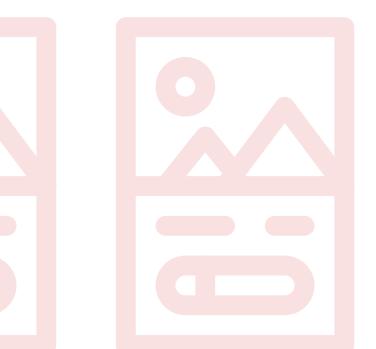
Database Textbook

\$40

Books ©Commonwealth Avenue

Database textbook - A programming approach. We wil...[read more](#)

by Vedant

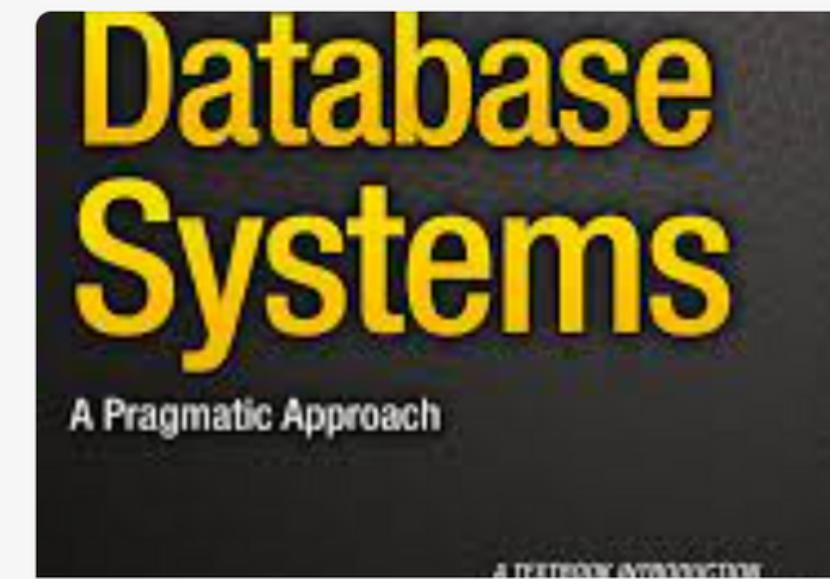


Filters database x Q

Marketplace

Create +

Logout



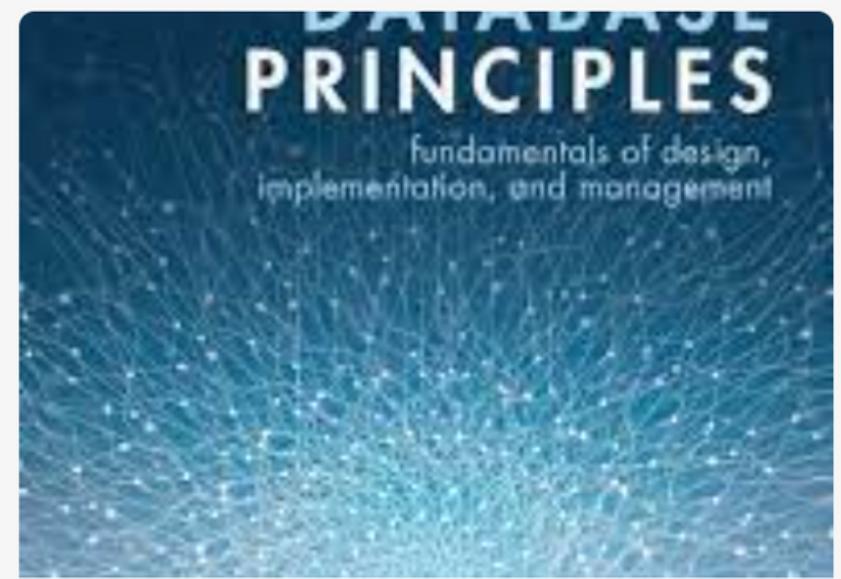
Database textbook

\$25

Books @Commonwealth Avenue

Database textbook - by Mr. Database. Written in Un...[read more](#)

by Vedant



Database Textbook

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Filters

Search



Marketplace

Create +

Logout

Databases System

A Pragmatic Approach

Database textbook

\$25

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Database textbook - by Mr. Database. Written in Un...[read more](#)

by Vedant

Categories

Location

Sort by Price

Price Range

\$0.00 – \$1,000.00



Sofa Bed

\$75

House Furniture & Appliances

© Huntington Avenue

Sofa Bed - Ultimate quality mattress and pure wood...[read more](#)

by Vedant

DATABASE PRINCIPLES

fundamentals of design, implementation, and management

Database Textbook

\$40

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by Vedant



Sofa Bed

\$75

House Furniture &
Appliances

Hunti
Avenu

Sofa Bed - Ultimate quality mattress a
wood...[read more](#)

by Vedant

Filters 1 Search



Clear Filters

Categories



Location



- Brighton
- Allston
- Cambridge
- Commonwealth Avenue
- Huntington Avenue
- Seaport
- Downtown
- Brookline
- Fenway
- Backbay
- Boylston
- Kenmore

Sort by Price

Marketplace

Create +

Logout



Filters

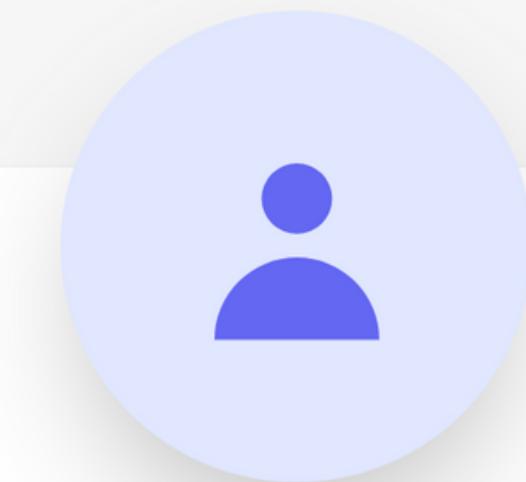
Search



Marketplace

Create +

Logout



3
Posts



Chat

Vedant

vedantg@gmail.com

Dotabase



DATA BASE
PRINCIPLES





Filters Search



Marketplace

Create +

Logout

Search contacts

Vedant · vedantg@gmail.com

Chris · chris@bu.edu

Vedant

Sure tell me
12:38 PM

Sure, I'll connect with you later today and text you the
location and time for tomorrow
12:39 PM

Hey, I wanted to enquire about a textbook
12:34 PM

I wanted the database textbook, I was hoping if we
could meet near BU
12:39 PM

Team 6

7th Dec , 2023

TESTING

by Nidhi

Testing

- types of testing,
- test case examples,
- testing metrics,
 - such as testing coverage, test pass rate, defect density or fix rate

Types of Testing

- Manual Testing
- Unit Testing
- Acceptance Testing
- Automation Testing
 - Component Testing
 - E2E testing



✓ should successfully log in with valid credentials

> SPIES / STUBS (1)

▼ BEFORE EACH

1 warning [cypress/react]: You are using cypress/react, which is designed for React 16. Consider changing to cypress/react, which is designed for React 18.

(new

url) http://localhost:8080/__cypress/s/index.html?

specPath=C:/Users/ravir/Documents/GitHub/73F23TEAM6/code/web-app/cypress/component/Login.cy.js

Component Testing

1. Registration
2. Login
3. Marketplace
4. Add Product form
5. Product
6. User
7. Contact Us
8. Logout
9. Direct Messaging

```
it('should successfully log in with valid credentials', () => {
    // Visit login page
    cy.visit('/login');

    // Enter valid credentials
    cy.get('input[name="email"]').type('your-valid-email@example.com');
    cy.get('input[name="password"]').type('your-valid-password');
    cy.get('button[type="submit"]').click();

    // Assertions
    cy.url().should('include', '/marketplace'); // Check if user is redirected to marketplace
    cy.get('span').should('contain.text', 'Welcome'); // Check if welcome message is displayed

});
```



```
it('should display an error message with invalid credentials', () => {
    // Visit login page
    cy.visit('/login');

    // Enter invalid credentials
    cy.get('input[name="email"]').type('invalid-email@example.com');
    cy.get('input[name="password"]').type('invalid-password');
    cy.get('button[type="submit"]').click();

    // Assertions
    cy.url().should('include', '/login'); // Check if user remains on login page
    cy.get('div').should('contain.text', 'Invalid Email'); // Check if invalid email error message is displayed

});
```

E2E Testing

1. User can successfully log in and log out.
2. Users can create a new product listing.
3. Users can delete their Product listing
4. Users can search for products on the marketplace.

```
it('should login, create a listing, and logout', () => {
  mount(
    <Router>
      <Login onClose={onCloseStub} />
    </Router>
  );
})�
// Enter login credentials and submit the form
cy.login('valid@gmail.com', 'valid673');
cy.url().should('include', '/marketplace'); // Check if the user is logged in

// Create a listing
cy.get('input[placeholder="Enter title of your product"]')
  .type('Test Product');
cy.get('textarea[placeholder="Enter description of your product"]')
  .type('This is a test product description');
cy.get('input[placeholder="Enter price of your product"]')
  .type('10');

// Upload test image test-img.jpg
cy.get('input[type="file"]').attachFile('test-image.jpg');
cy.get('button:contains("Publish")').click();
cy.url().should('not.contain', 'products'); // Assuming successful listing creation
cy.contains('Test Product').should('exist'); // Check if the product is listed

// Logout
cy.get('button#logout').click();
cy.url().should('include', '/Login'); // Check if redirected to login page
});
```

Test CRUD operations on Product model

- Tools: `unittest`, Django's `APIClient`, `status`, `reverse`.
- **Test Setup**
- **Initialize test user and authenticate with APIClient.**
- **Prepare Product test data.**
- **Test Cases Overview**
- **Create Product: Validates product creation.**
- **Retrieve Product List: Ensures retrieval functionality.**
- **Update Product: Tests product update capability.**
- **Delete Product: Confirms product deletion process.**

Test Coverage

Manual Testing- 100%

Component Testing- 90%

E2E testing-85%

Test Pass Rate

Manual Testing- 92%

Automation Testing- 88%

Defect Density and Fix Rate

Team 6

7th Dec , 2023

DEMO

by Vedant Gupta

Loading...



COLLEGESTREET

7th DEC 2023

**THAT'S A
WRAP!**

Thank you for participating.