COMP 490/L
Senior Design Project
Fall 2022
490/L Project Presentation

Group Name: White Volley Girls

Team Leader: Christian Jarmon

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Agenda {everything in parens/highlighter is slidedeck section}

Summary of what your project is **(Project Overview)**

(Problem Definition) – What is your application trying to solve. Again reuse from SPMP possibly.

(Application screenshots) – reuse from SDD

(Software overview diagram and explanation) – take from SDD

(Sample Code Snippets) – Code samples from your application

Quick Demo of your project (so far) – **(App Demo)**

Doesn't have to be fancy

Pick what you want to demonstrate

(Progress and Future Work (491/L)) – how is the application progressing and what's left to do

- **(Questions)**

Project Overview

A web-based set of tools and utilities for CSUN students and advisors to effectively plan and explore classes, schedules, professors, and majors provided by the university.

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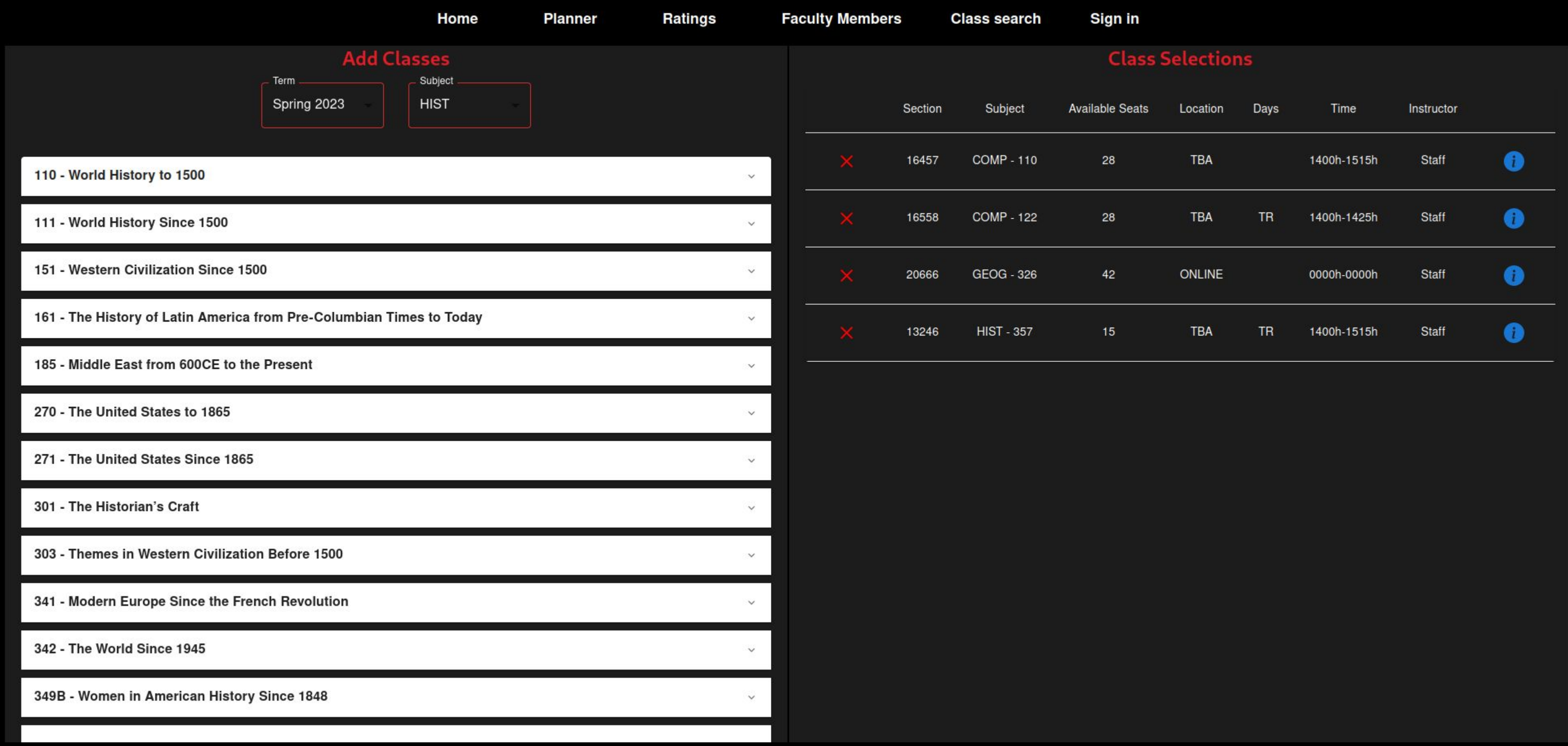
Problem Definition

Our goal was to gather, defragment, and organize all the information of catalogs, professors, majors, and school rules/guidelines.

Allows any and all to effectively plan one’s journey traversing CSUN.

Application screenshots



Add Classes

Term: Spring 2023

Subject: HIST

- 110 - World History to 1500
- 111 - World History Since 1500
- 151 - Western Civilization Since 1500
- 161 - The History of Latin America from Pre-Columbian Times to Today
- 185 - Middle East from 600CE to the Present
- 270 - The United States to 1865
- 271 - The United States Since 1865
- 301 - The Historian’s Craft
- 303 - Themes in Western Civilization Before 1500
- 341 - Modern Europe Since the French Revolution
- 342 - The World Since 1945
- 349B - Women in American History Since 1848

Class Selections

	Section	Subject	Available Seats	Location	Days	Time	Instructor	
✕	16457	COMP - 110	28	TBA		1400h-1515h	Staff	i
✕	16558	COMP - 122	28	TBA	TR	1400h-1425h	Staff	i
✕	20666	GEOG - 326	42	ONLINE		0000h-0000h	Staff	i
✕	13246	HIST - 357	15	TBA	TR	1400h-1515h	Staff	i

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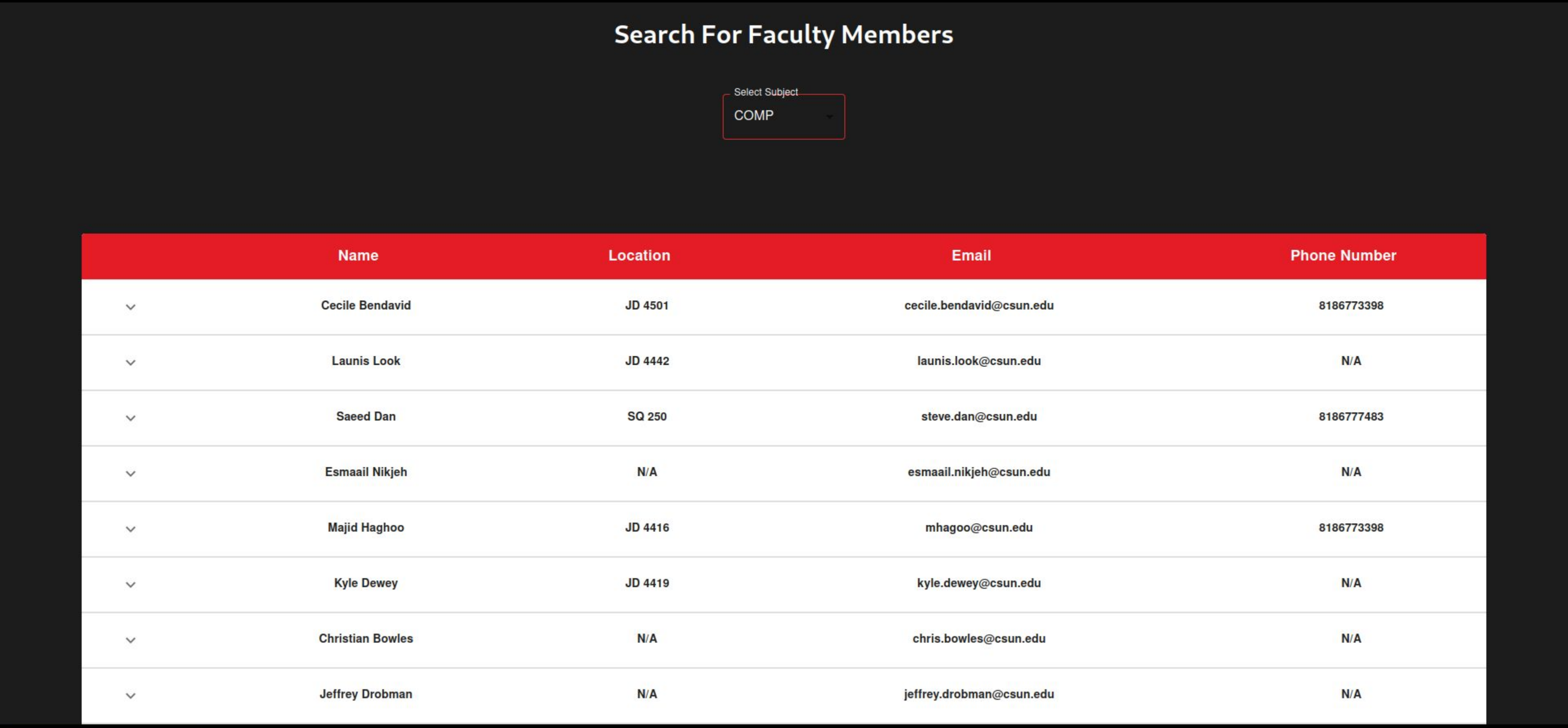
Application screenshots



Search For Faculty Members

Select Subject: COMP

	Name	Location	Email	Phone Number
⌄	Cecile Bendavid	JD 4501	cecile.bendavid@csun.edu	8186773398
⌄	Launis Look	JD 4442	launis.look@csun.edu	N/A
⌄	Saeed Dan	SQ 250	steve.dan@csun.edu	8186777483
⌄	Esmaail Nikjeh	N/A	esmaail.nikjeh@csun.edu	N/A
⌄	Majid Haghoo	JD 4416	mhagoo@csun.edu	8186773398
⌄	Kyle Dewey	JD 4419	kyle.dewey@csun.edu	N/A
⌄	Christian Bowles	N/A	chris.bowles@csun.edu	N/A
⌄	Jeffrey Drobman	N/A	jeffrey.drobman@csun.edu	N/A

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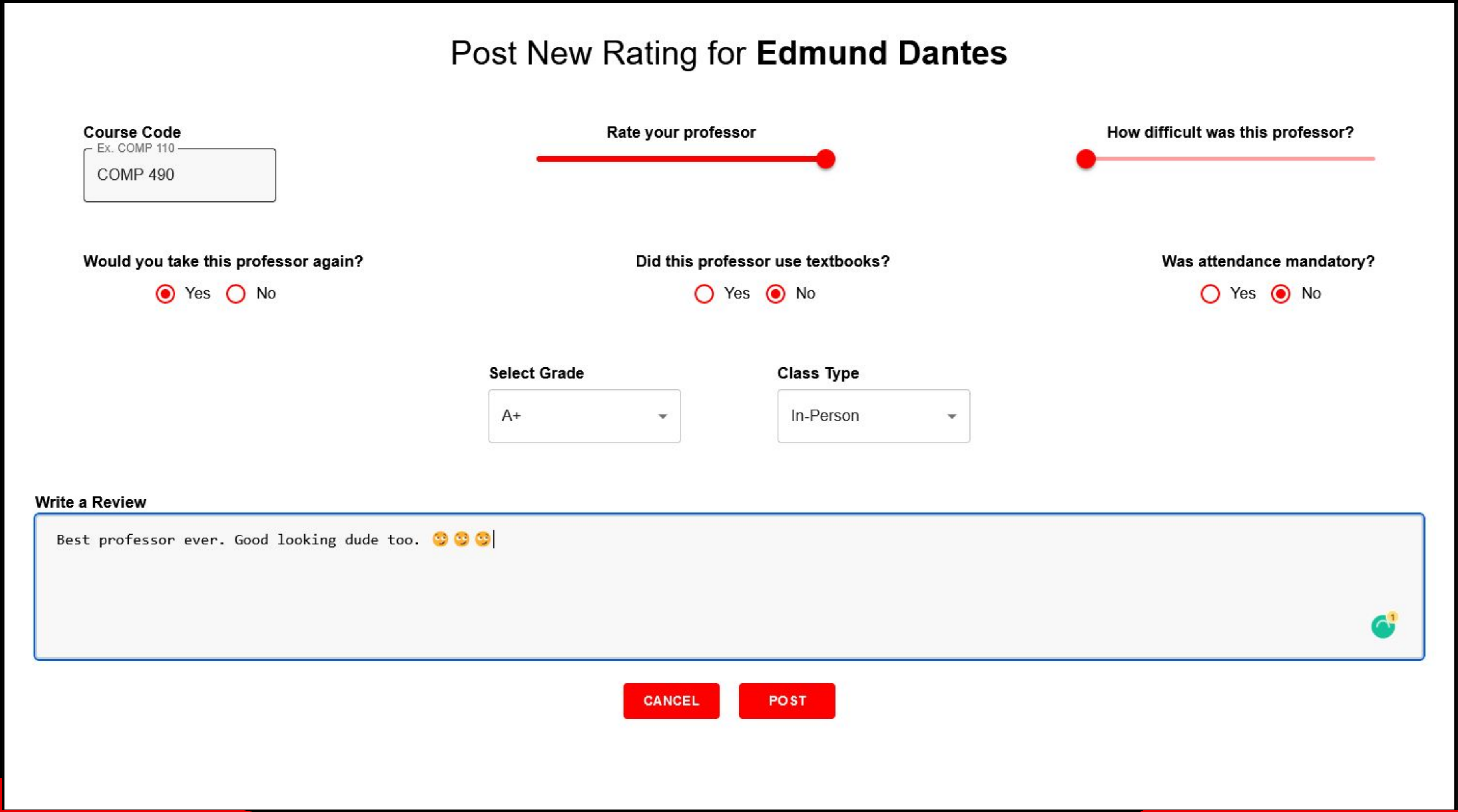
Application screenshots



Post New Rating for **Edmund Dantes**

Course Code

Ex. COMP 110

COMP 490

Rate your professor

How difficult was this professor?

Would you take this professor again?

● Yes ○ No

Did this professor use textbooks?

○ Yes ● No

Was attendance mandatory?

○ Yes ● No

Select Grade

A+

Class Type

In-Person

Write a Review

Best professor ever. Good looking dude too. 😌😌😌

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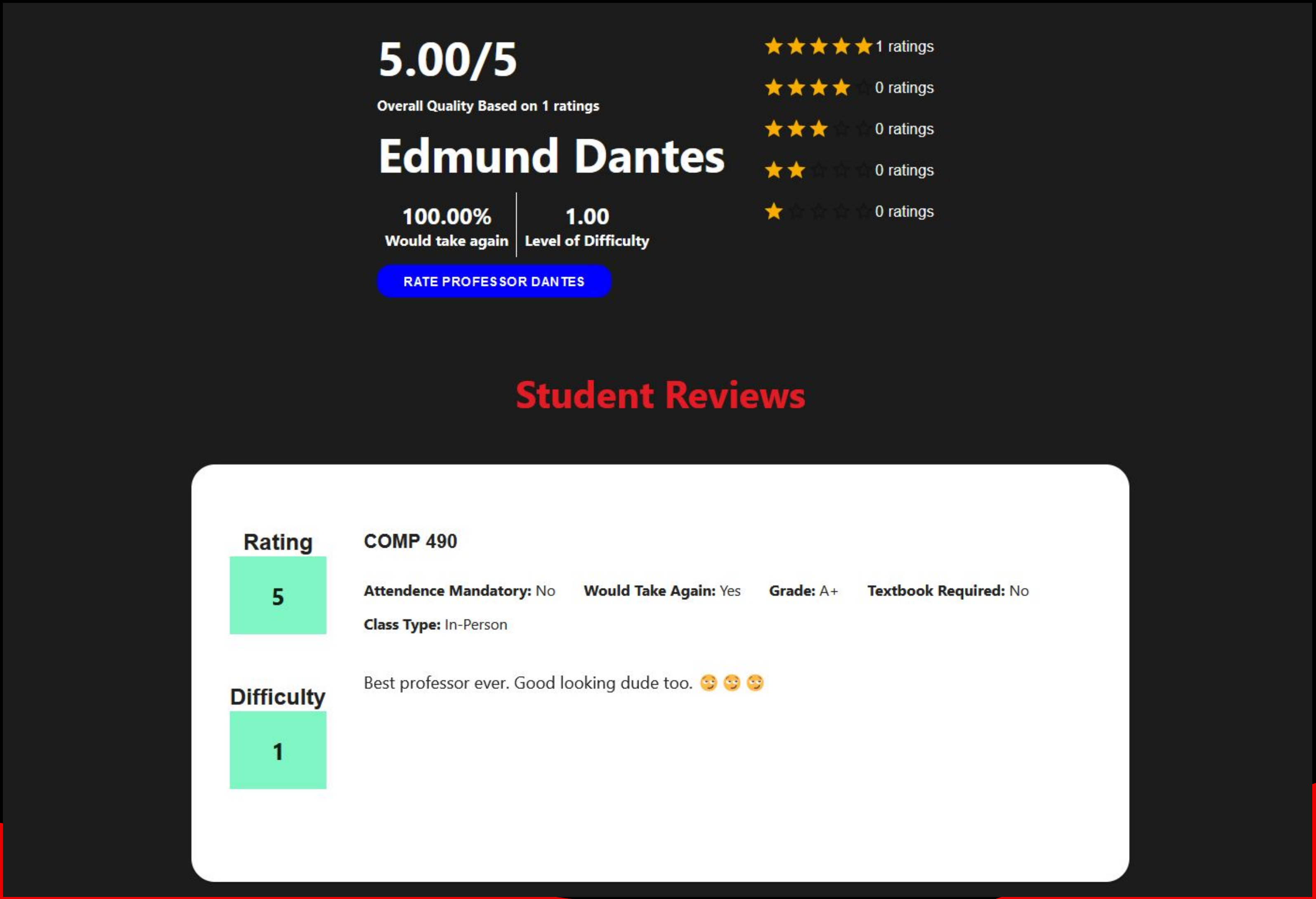
Application screenshots



5.00/5

Overall Quality Based on 1 ratings

Edmund Dantes

100.00%
Would take again

1.00
Level of Difficulty

★★★★★	1 ratings
★★★★☆	0 ratings
★★★☆☆	0 ratings
★★☆☆☆	0 ratings
★☆☆☆☆	0 ratings

Student Reviews

Rating
5

Difficulty
1

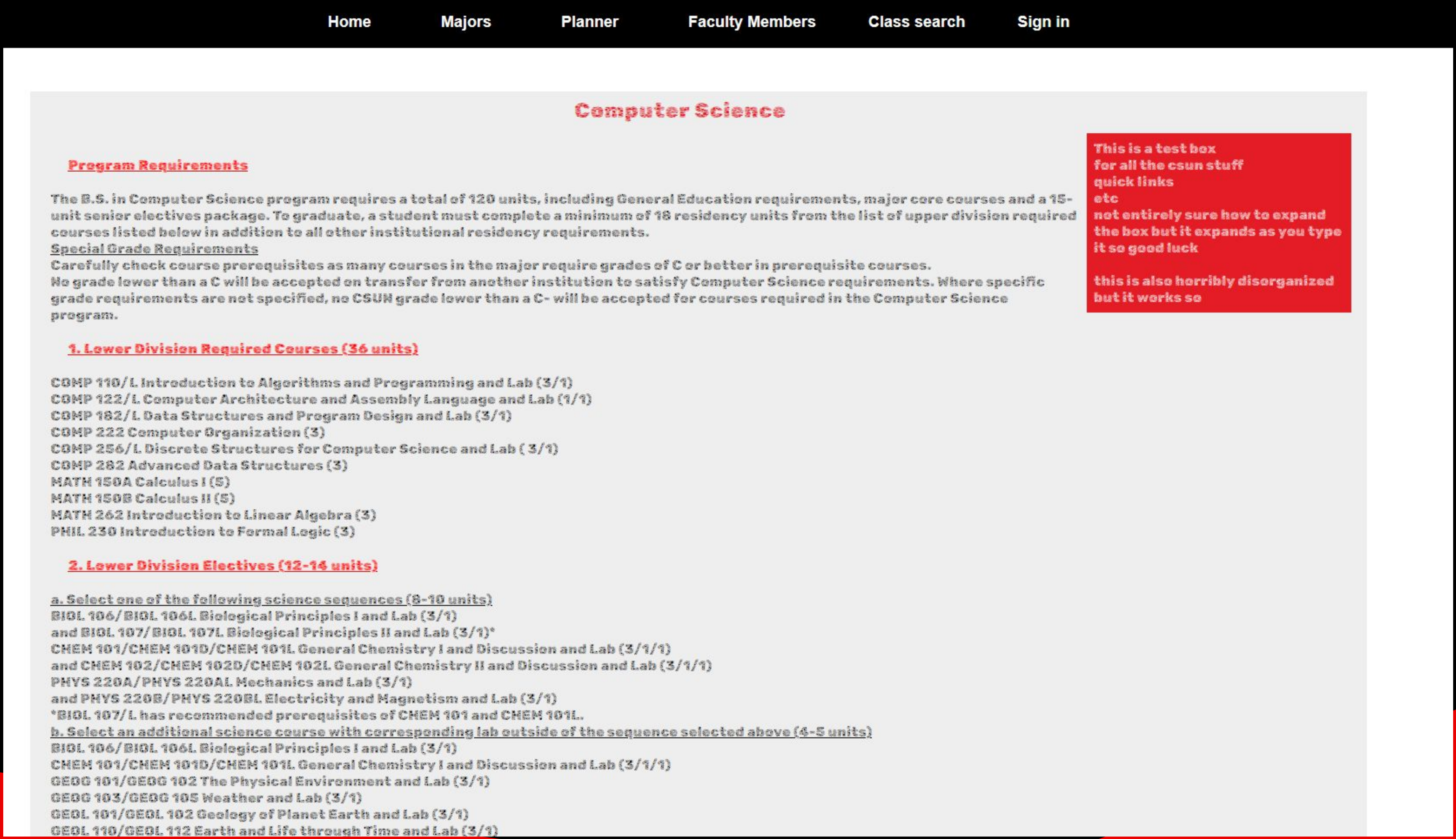
COMP 490

Attendence Mandatory: No **Would Take Again:** Yes **Grade:** A+ **Textbook Required:** No

Class Type: In-Person

Best professor ever. Good looking dude too. 😌😌😌

Application screenshots



Computer Science

This is a test box
for all the csun stuff
quick links
etc
not entirely sure how to expand
the box but it expands as you type
it so good luck

this is also horribly disorganized
but it works so

Program Requirements

The B.S. in Computer Science program requires a total of 120 units, including General Education requirements, major core courses and a 15-unit senior electives package. To graduate, a student must complete a minimum of 18 residency units from the list of upper division required courses listed below in addition to all other institutional residency requirements.

Special Grade Requirements

Carefully check course prerequisites as many courses in the major require grades of C or better in prerequisite courses.

No grade lower than a C will be accepted on transfer from another institution to satisfy Computer Science requirements. Where specific grade requirements are not specified, no CSUN grade lower than a C- will be accepted for courses required in the Computer Science program.

1. Lower Division Required Courses (36 units)

COMP 110/L Introduction to Algorithms and Programming and Lab (3/1)
COMP 122/L Computer Architecture and Assembly Language and Lab (1/1)
COMP 182/L Data Structures and Program Design and Lab (3/1)
COMP 222 Computer Organization (3)
COMP 256/L Discrete Structures for Computer Science and Lab (3/1)
COMP 282 Advanced Data Structures (3)
MATH 150A Calculus I (5)
MATH 150B Calculus II (5)
MATH 262 Introduction to Linear Algebra (3)
PHIL 230 Introduction to Formal Logic (3)

2. Lower Division Electives (12-14 units)

a. Select one of the following science sequences (8-10 units)
BIOL 106/ BIOL 106L Biological Principles I and Lab (3/1)
and BIOL 107/ BIOL 107L Biological Principles II and Lab (3/1)*
CHEM 101/CHEM 101D/CHEM 101L General Chemistry I and Discussion and Lab (3/1/1)
and CHEM 102/CHEM 102D/CHEM 102L General Chemistry II and Discussion and Lab (3/1/1)
PHYS 220A/PHYS 220AL Mechanics and Lab (3/1)
and PHYS 220B/PHYS 220BL Electricity and Magnetism and Lab (3/1)
*BIOL 107/L has recommended prerequisites of CHEM 101 and CHEM 101L.
b. Select an additional science course with corresponding lab outside of the sequence selected above (4-5 units)
BIOL 106/ BIOL 106L Biological Principles I and Lab (3/1)
CHEM 101/CHEM 101D/CHEM 101L General Chemistry I and Discussion and Lab (3/1/1)
GEOG 101/GEOG 102 The Physical Environment and Lab (3/1)
GEOG 103/GEOG 105 Weather and Lab (3/1)
GEOL 101/GEOL 102 Geology of Planet Earth and Lab (3/1)
GEOL 110/GEOL 112 Earth and Life through Time and Lab (3/1)

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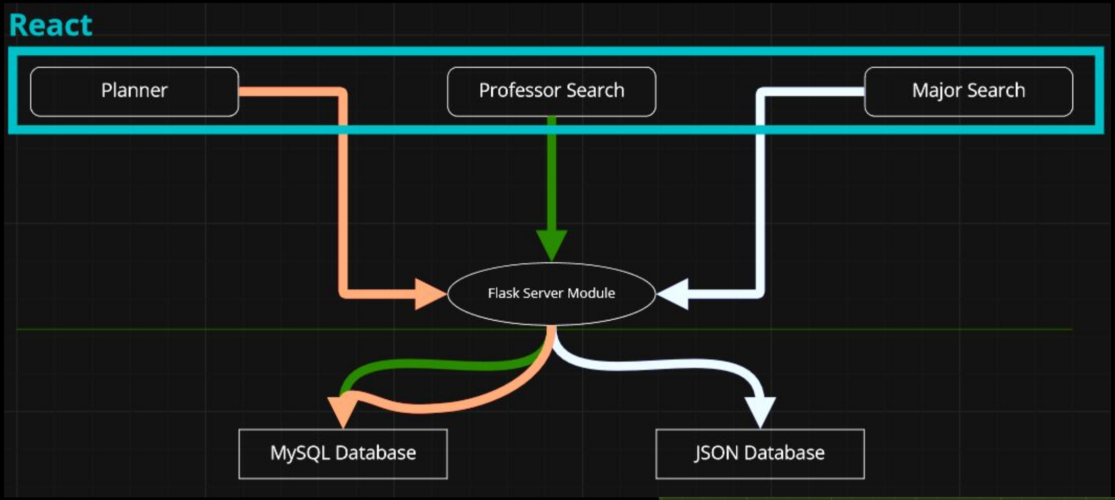
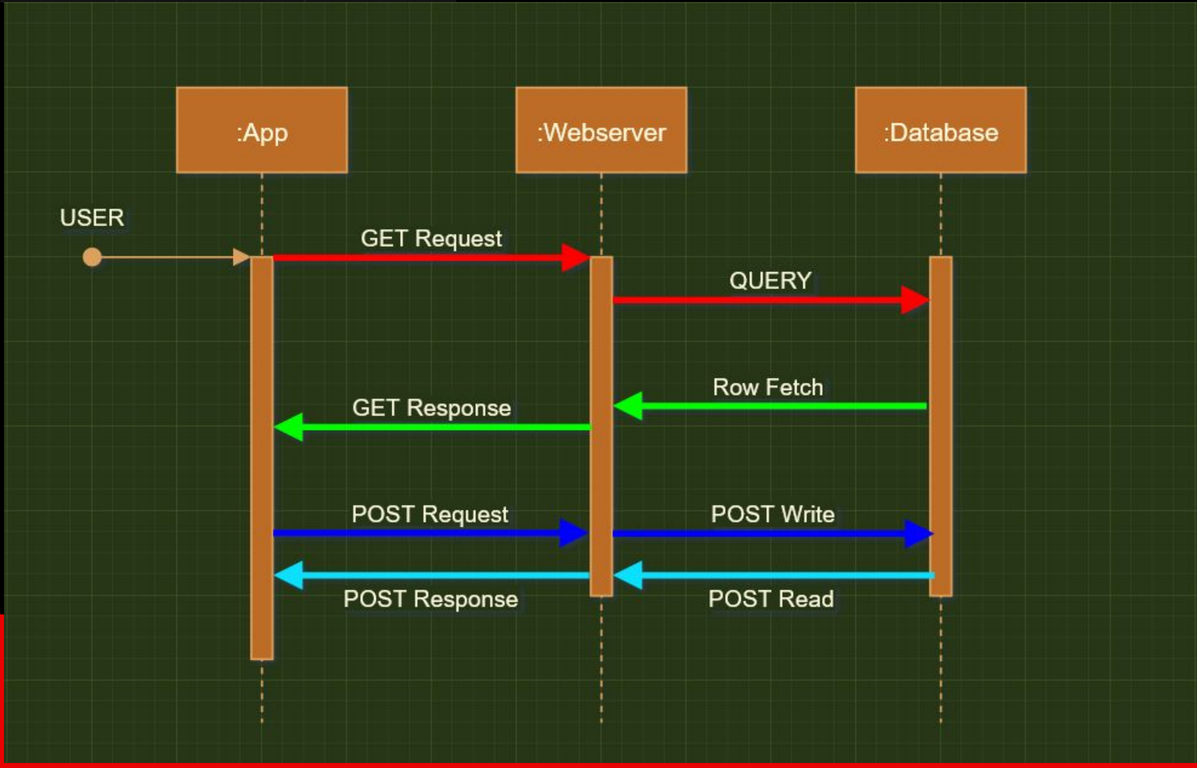
Software Overview

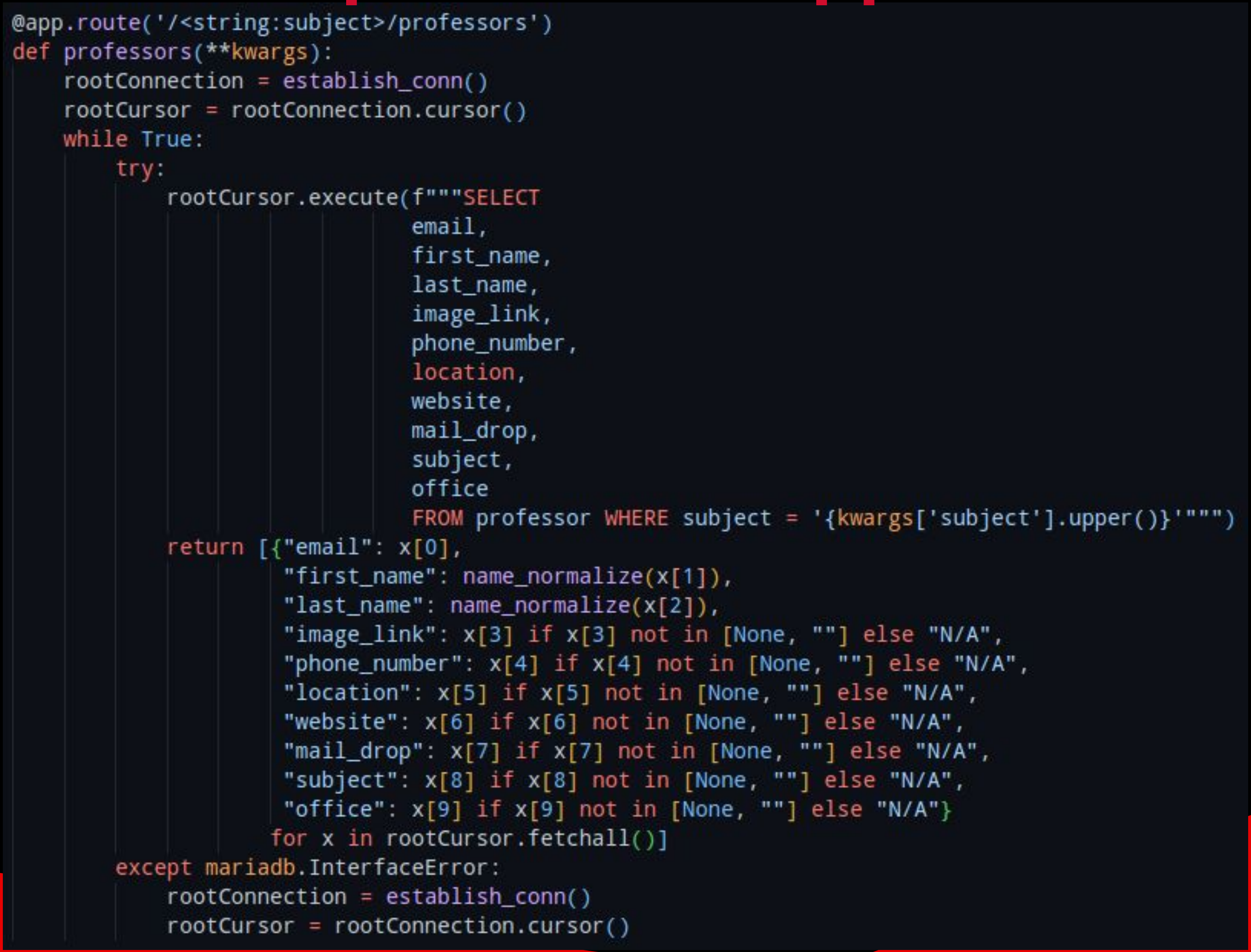


<= Components

Sequence Diagram =>



Sample Code Snippets



```
@app.route('/<string:subject>/professors')
def professors(**kwargs):
    rootConnection = establish_conn()
    rootCursor = rootConnection.cursor()
    while True:
        try:
            rootCursor.execute(f"""SELECT
                               email,
                               first_name,
                               last_name,
                               image_link,
                               phone_number,
                               location,
                               website,
                               mail_drop,
                               subject,
                               office
                               FROM professor WHERE subject = '{kwargs['subject'].upper()}'""")
            return [{"email": x[0],
                     "first_name": name_normalize(x[1]),
                     "last_name": name_normalize(x[2]),
                     "image_link": x[3] if x[3] not in [None, ""] else "N/A",
                     "phone_number": x[4] if x[4] not in [None, ""] else "N/A",
                     "location": x[5] if x[5] not in [None, ""] else "N/A",
                     "website": x[6] if x[6] not in [None, ""] else "N/A",
                     "mail_drop": x[7] if x[7] not in [None, ""] else "N/A",
                     "subject": x[8] if x[8] not in [None, ""] else "N/A",
                     "office": x[9] if x[9] not in [None, ""] else "N/A"}
                    for x in rootCursor.fetchall()]
        except mariadb.InterfaceError:
            rootConnection = establish_conn()
            rootCursor = rootConnection.cursor()
```

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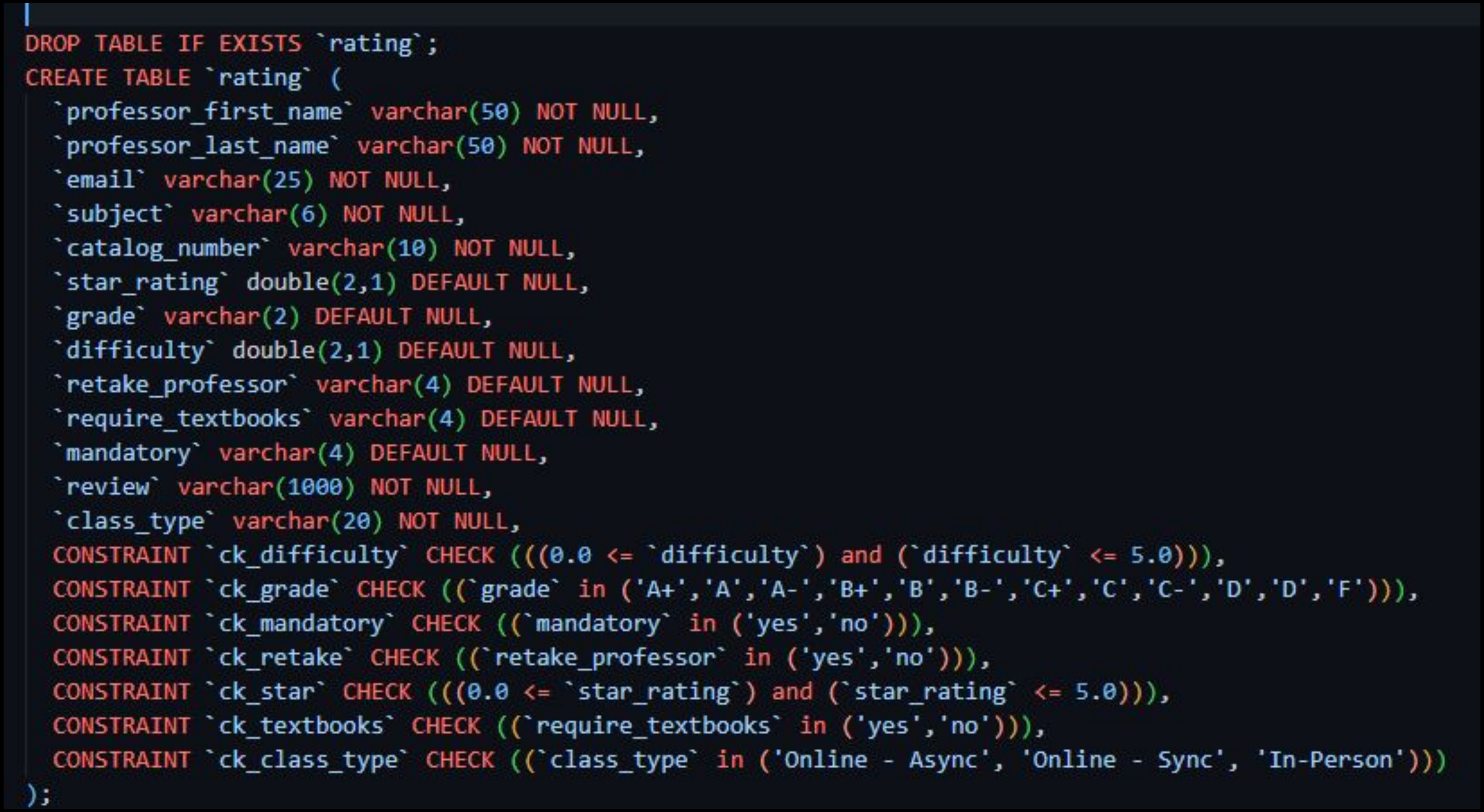
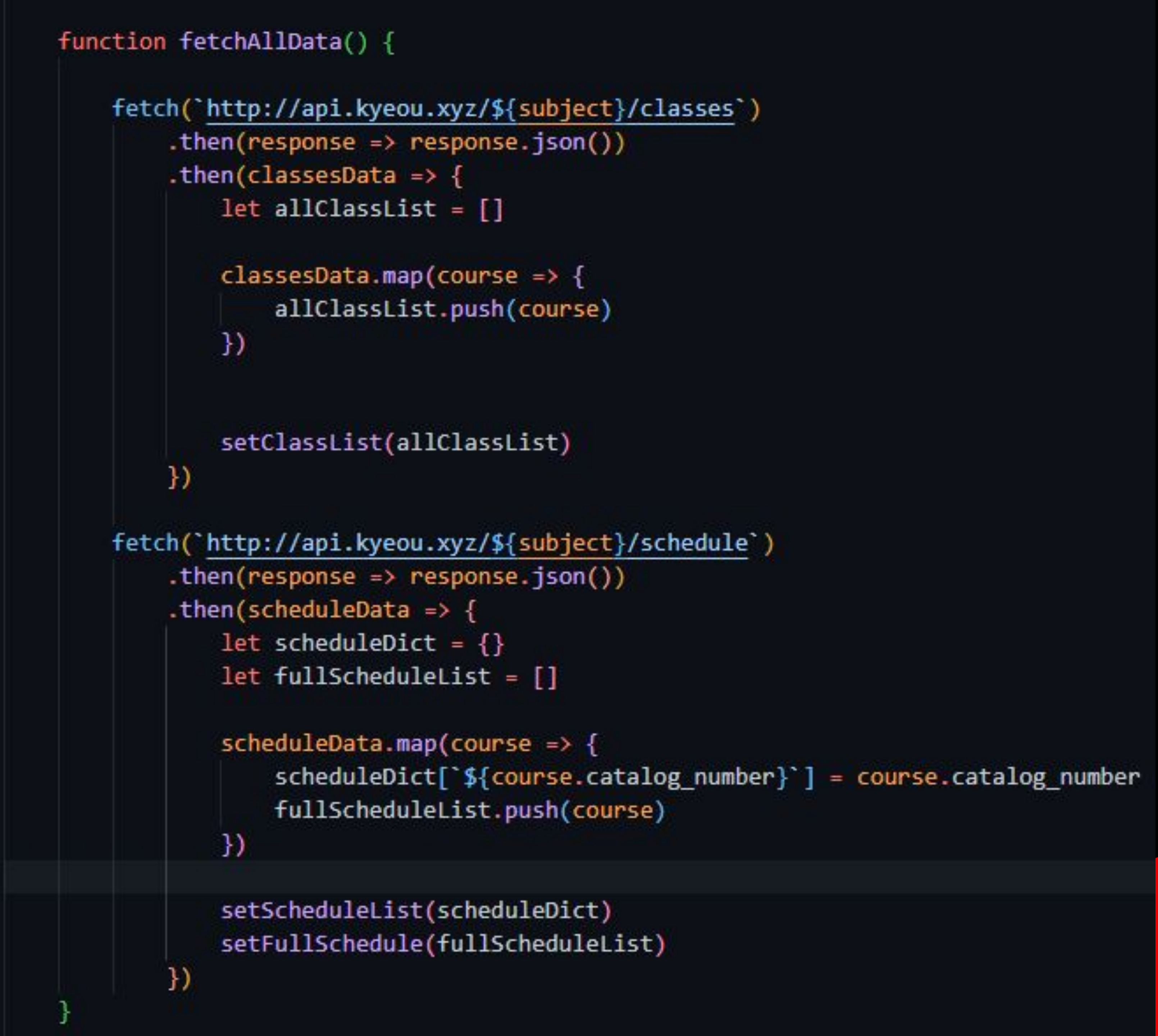


```
DROP TABLE IF EXISTS `rating`;
CREATE TABLE `rating` (
  `professor_first_name` varchar(50) NOT NULL,
  `professor_last_name` varchar(50) NOT NULL,
  `email` varchar(25) NOT NULL,
  `subject` varchar(6) NOT NULL,
  `catalog_number` varchar(10) NOT NULL,
  `star_rating` double(2,1) DEFAULT NULL,
  `grade` varchar(2) DEFAULT NULL,
  `difficulty` double(2,1) DEFAULT NULL,
  `retake_professor` varchar(4) DEFAULT NULL,
  `require_textbooks` varchar(4) DEFAULT NULL,
  `mandatory` varchar(4) DEFAULT NULL,
  `review` varchar(1000) NOT NULL,
  `class_type` varchar(20) NOT NULL,
  CONSTRAINT `ck_difficulty` CHECK (((0.0 <= `difficulty`) and (`difficulty` <= 5.0))),
  CONSTRAINT `ck_grade` CHECK ((`grade` in ('A+','A','A-','B+','B','B-','C+','C','C-','D','D','F'))),
  CONSTRAINT `ck_mandatory` CHECK ((`mandatory` in ('yes','no'))),
  CONSTRAINT `ck_retake` CHECK ((`retake_professor` in ('yes','no'))),
  CONSTRAINT `ck_star` CHECK (((0.0 <= `star_rating`) and (`star_rating` <= 5.0))),
  CONSTRAINT `ck_textbooks` CHECK ((`require_textbooks` in ('yes','no'))),
  CONSTRAINT `ck_class_type` CHECK ((`class_type` in ('Online - Async', 'Online - Sync', 'In-Person')))
);
```



```
function fetchAllData() {

    fetch(`http://api.kyeou.xyz/${subject}/classes`)
        .then(response => response.json())
        .then(classesData => {
            let allClassList = []

            classesData.map(course => {
                allClassList.push(course)
            })


            setClassList(allClassList)
        })

    fetch(`http://api.kyeou.xyz/${subject}/schedule`)
        .then(response => response.json())
        .then(scheduleData => {
            let scheduleDict = {}
            let fullScheduleList = []

            scheduleData.map(course => {
                scheduleDict[`${course.catalog_number}`] = course.catalog_number
                fullScheduleList.push(course)
            })

            setScheduleList(scheduleDict)
            setFullSchedule(fullScheduleList)
        })
}
```

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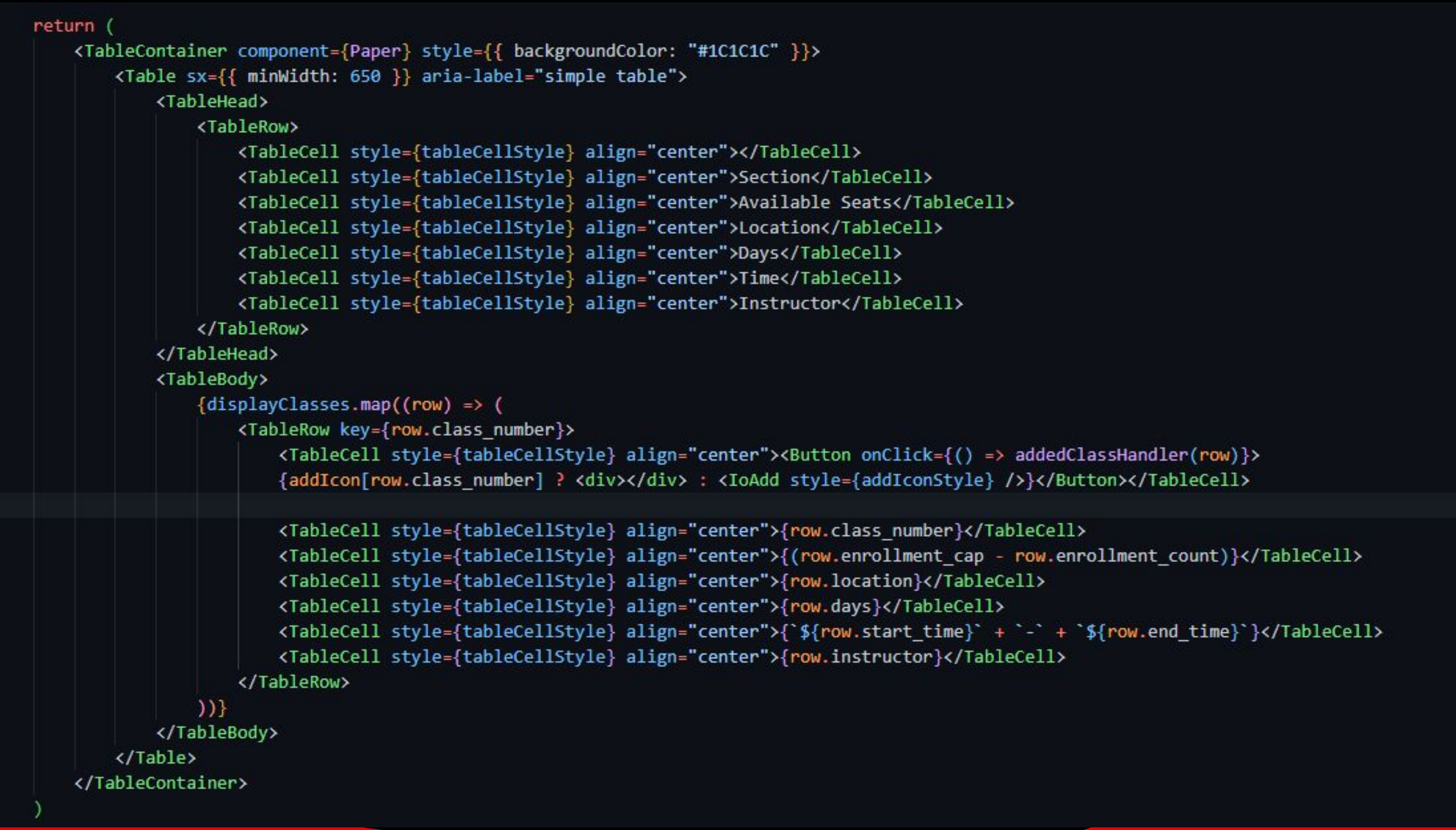

```
return (
    <TableContainer component={Paper} style={{ backgroundColor: "#1C1C1C" }}>
        <Table sx={{ minWidth: 650 }} aria-label="simple table">
            <TableHead>
                <TableRow>
                    <TableCell style={tableCellStyle} align="center"></TableCell>
                    <TableCell style={tableCellStyle} align="center">Section</TableCell>
                    <TableCell style={tableCellStyle} align="center">Available Seats</TableCell>
                    <TableCell style={tableCellStyle} align="center">Location</TableCell>
                    <TableCell style={tableCellStyle} align="center">Days</TableCell>
                    <TableCell style={tableCellStyle} align="center">Time</TableCell>
                    <TableCell style={tableCellStyle} align="center">Instructor</TableCell>
                </TableRow>
            </TableHead>
            <TableBody>
                {displayClasses.map((row) => (
                    <TableRow key={row.class_number}>
                        <TableCell style={tableCellStyle} align="center"><Button onClick={() => addedClassHandler(row)}>
                        {addIcon[row.class_number] ? <div></div> : <IoAdd style={addIconStyle} />}</Button></TableCell>

                        <TableCell style={tableCellStyle} align="center">{row.class_number}</TableCell>
                        <TableCell style={tableCellStyle} align="center">{(row.enrollment_cap - row.enrollment_count)}</TableCell>
                        <TableCell style={tableCellStyle} align="center">{row.location}</TableCell>
                        <TableCell style={tableCellStyle} align="center">{row.days}</TableCell>
                        <TableCell style={tableCellStyle} align="center">{`${row.start_time}` + `-` + `${row.end_time}`}</TableCell>
                        <TableCell style={tableCellStyle} align="center">{row.instructor}</TableCell>
                    </TableRow>
                ))}
            </TableBody>
        </Table>
    </TableContainer>
)
```

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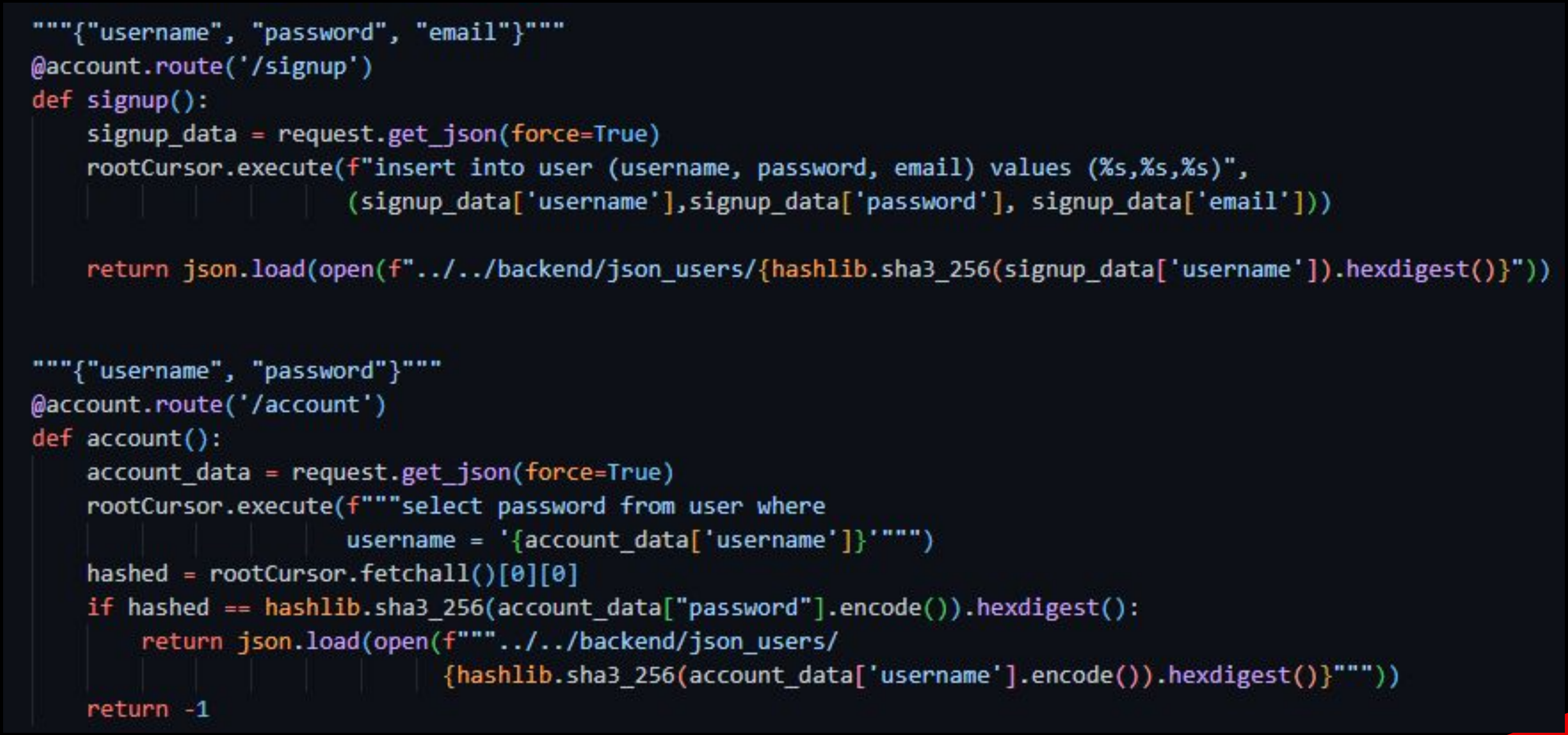
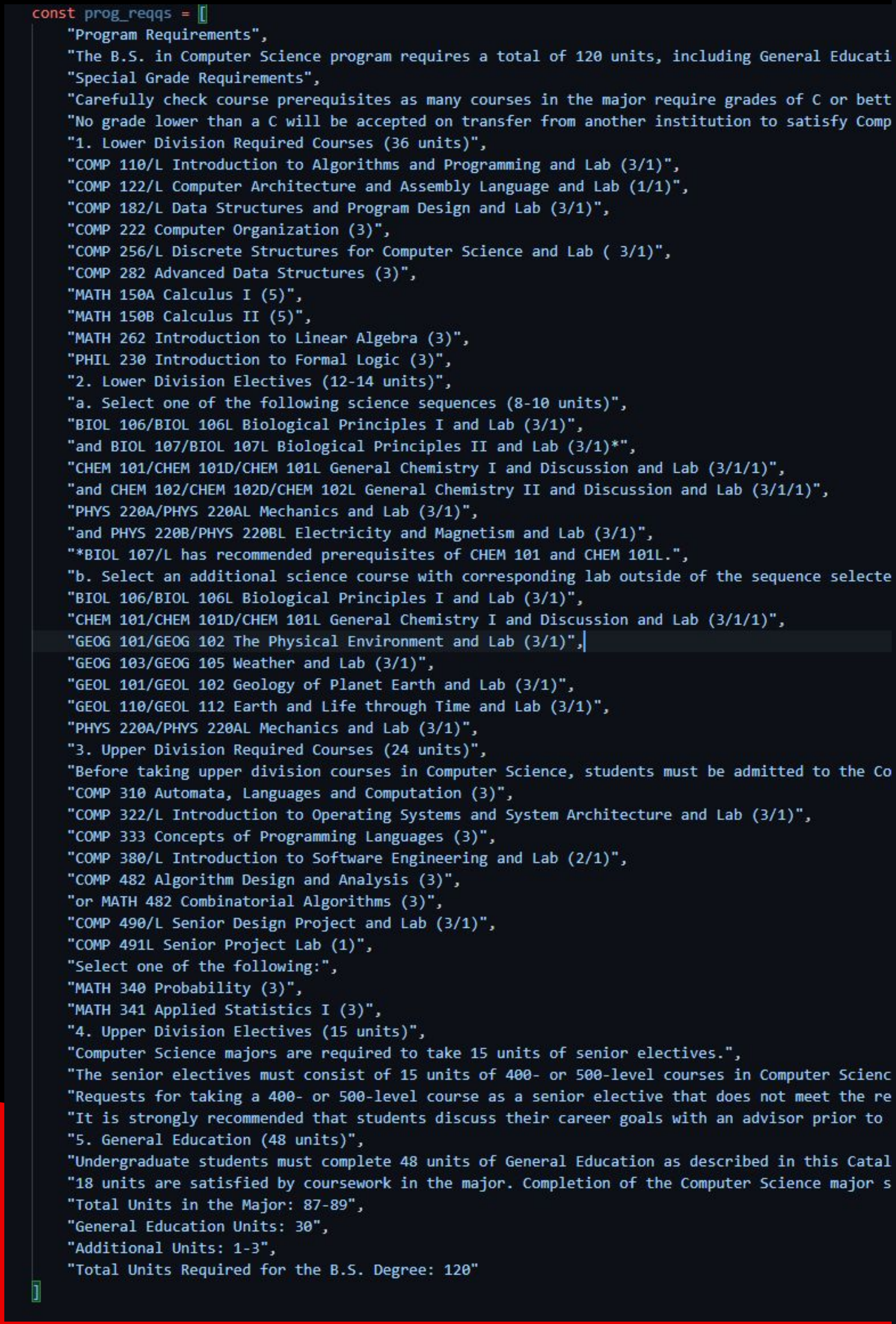


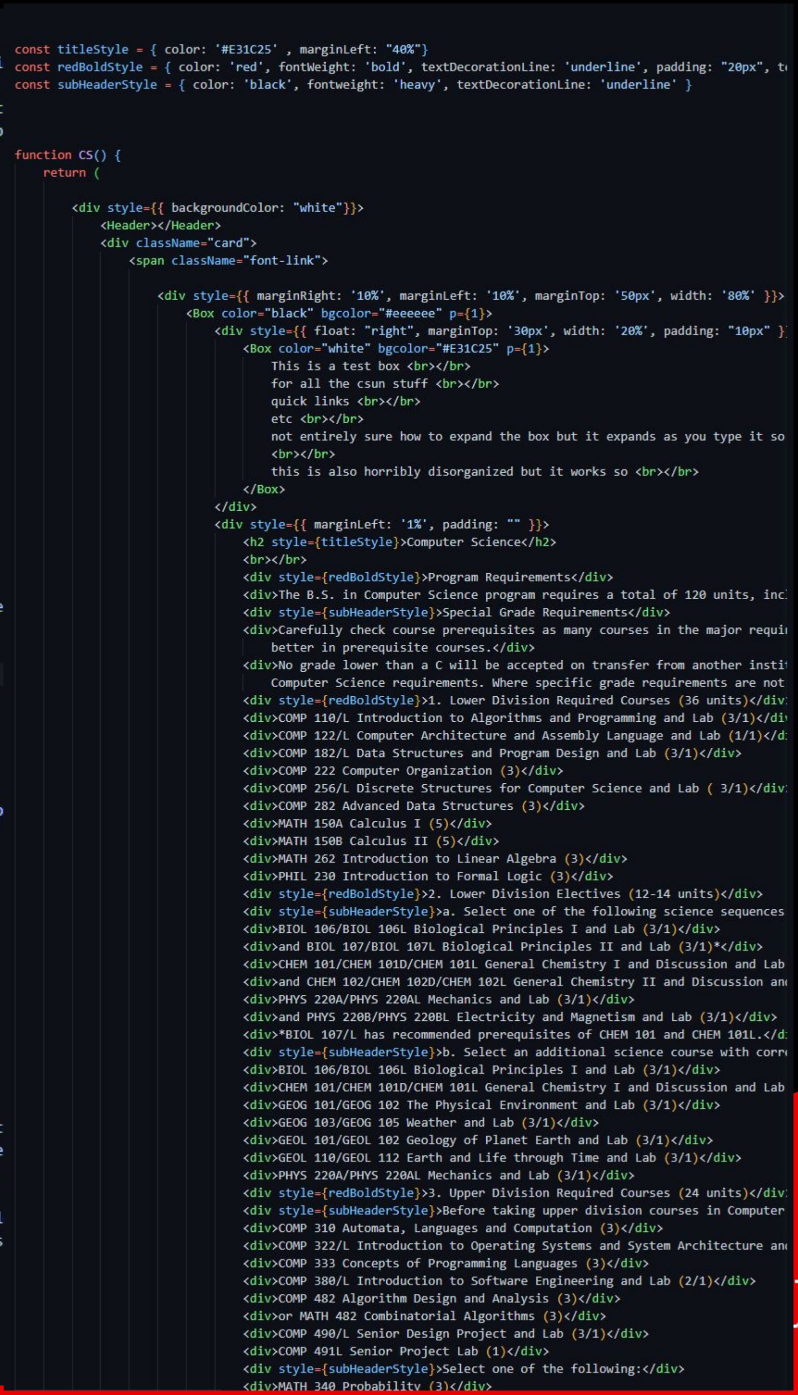
```
"""{"username", "password", "email"}"""
@account.route('/signup')
def signup():
    signup_data = request.get_json(force=True)
    rootCursor.execute(f"insert into user (username, password, email) values (%s,%s,%s)",
                       (signup_data['username'],signup_data['password'], signup_data['email']))

    return json.load(open(f"../../backend/json_users/{hashlib.sha3_256(signup_data['username']).hexdigest()}"))


"""{"username", "password"}"""
@account.route('/account')
def account():
    account_data = request.get_json(force=True)
    rootCursor.execute(f"""select password from user where
                       username = '{account_data['username']}'""")
    hashed = rootCursor.fetchall()[0][0]
    if hashed == hashlib.sha3_256(account_data["password"].encode()).hexdigest():
        return json.load(open(f"""../../backend/json_users/
                              {hashlib.sha3_256(account_data['username'].encode()).hexdigest()}"""))
    return -1
```



```
const prog_reqqs = [
    "Program Requirements",
    "The B.S. in Computer Science program requires a total of 120 units, including General Educati
    "Special Grade Requirements",
    "Carefully check course prerequisites as many courses in the major require grades of C or bett
    "No grade lower than a C will be accepted on transfer from another institution to satisfy Comp
    "1. Lower Division Required Courses (36 units)",
    "COMP 110/L Introduction to Algorithms and Programming and Lab (3/1)",
    "COMP 122/L Computer Architecture and Assembly Language and Lab (1/1)",
    "COMP 182/L Data Structures and Program Design and Lab (3/1)",
    "COMP 222 Computer Organization (3)",
    "COMP 256/L Discrete Structures for Computer Science and Lab ( 3/1)",
    "COMP 282 Advanced Data Structures (3)",
    "MATH 150A Calculus I (5)",
    "MATH 150B Calculus II (5)",
    "MATH 262 Introduction to Linear Algebra (3)",
    "PHIL 230 Introduction to Formal Logic (3)",
    "2. Lower Division Electives (12-14 units)",
    "a. Select one of the following science sequences (8-10 units)",
    "BIOL 106/BIOL 106L Biological Principles I and Lab (3/1)",
    "and BIOL 107/BIOL 107L Biological Principles II and Lab (3/1)*",
    "CHEM 101/CHEM 101D/CHEM 101L General Chemistry I and Discussion and Lab (3/1/1)",
    "and CHEM 102/CHEM 102D/CHEM 102L General Chemistry II and Discussion and Lab (3/1/1)",
    "PHYS 220A/PHYS 220AL Mechanics and Lab (3/1)",
    "and PHYS 220B/PHYS 220BL Electricity and Magnetism and Lab (3/1)",
    "*BIOL 107/L has recommended prerequisites of CHEM 101 and CHEM 101L.",
    "b. Select an additional science course with corresponding lab outside of the sequence selecte
    "BIOL 106/BIOL 106L Biological Principles I and Lab (3/1)",
    "CHEM 101/CHEM 101D/CHEM 101L General Chemistry I and Discussion and Lab (3/1/1)",
    "GEOG 101/GEOG 102 The Physical Environment and Lab (3/1)",
    "GEOG 103/GEOG 105 Weather and Lab (3/1)",
    "GEOL 101/GEOL 102 Geology of Planet Earth and Lab (3/1)",
    "GEOL 110/GEOL 112 Earth and Life through Time and Lab (3/1)",
    "PHYS 220A/PHYS 220AL Mechanics and Lab (3/1)",
    "3. Upper Division Required Courses (24 units)",
    "Before taking upper division courses in Computer Science, students must be admitted to the Co
    "COMP 310 Automata, Languages and Computation (3)",
    "COMP 322/L Introduction to Operating Systems and System Architecture and Lab (3/1)",
    "COMP 333 Concepts of Programming Languages (3)",
    "COMP 380/L Introduction to Software Engineering and Lab (2/1)",
    "COMP 482 Algorithm Design and Analysis (3)",
    "or MATH 482 Combinatorial Algorithms (3)",
    "COMP 490/L Senior Design Project and Lab (3/1)",
    "COMP 491L Senior Project Lab (1)",
    "Select one of the following:",
    "MATH 340 Probability (3)",
    "MATH 341 Applied Statistics I (3)",
    "4. Upper Division Electives (15 units)",
    "Computer Science majors are required to take 15 units of senior electives.",
    "The senior electives must consist of 15 units of 400- or 500-level courses in Computer Scienc
    "Requests for taking a 400- or 500-level course as a senior elective that does not meet the re
    "It is strongly recommended that students discuss their career goals with an advisor prior to
    "5. General Education (48 units)",
    "Undergraduate students must complete 48 units of General Education as described in this Catal
    "18 units are satisfied by coursework in the major. Completion of the Computer Science major s
    "Total Units in the Major: 87-89",
    "General Education Units: 30",
    "Additional Units: 1-3",
    "Total Units Required for the B.S. Degree: 120"
]
```



```
const titleStyle = { color: '#E31C25' , marginLeft: "40%"}
const redBoldStyle = { color: 'red', fontWeight: 'bold', textDecorationLine: 'underline', padding: "20px", t
const subHeaderStyle = { color: 'black', fontweight: 'heavy', textDecorationLine: 'underline' }


function CS() {
    return (

        <div style={{ backgroundColor: "white"}}>
            <Header></Header>
            <div className="card">
                <span className="font-link">

                    <div style={{ marginRight: '10%', marginLeft: '10%', marginTop: '50px', width: '80%' }}>
                        <Box color="black" bgcolor="#eeeeee" p={1}>
                            <div style={{ float: "right", marginTop: '30px', width: '20%', padding: "10px" }
                                <Box color="white" bgcolor="#E31C25" p={1}>
                                    This is a test box <br></br>
                                    for all the csun stuff <br></br>
                                    quick links <br></br>
                                    etc <br></br>
                                    not entirely sure how to expand the box but it expands as you type it so
                                    <br></br>
                                    this is also horribly disorganized but it works so <br></br>
                                </Box>
                            </div>
                            <div style={{ marginLeft: '1%', padding: "" }}>
                                <h2 style={titleStyle}>Computer Science</h2>
                                <br></br>
                                <div style={redBoldStyle}>Program Requirements</div>
                                <div>The B.S. in Computer Science program requires a total of 120 units, inc
                                <div style={subHeaderStyle}>Special Grade Requirements</div>
                                <div>Carefully check course prerequisites as many courses in the major requi
                                    better in prerequisite courses.</div>
                                <div>No grade lower than a C will be accepted on transfer from another insti
                                    Computer Science requirements. Where specific grade requirements are not
                                <div style={redBoldStyle}>1. Lower Division Required Courses (36 units)</div
                                <div>COMP 110/L Introduction to Algorithms and Programming and Lab (3/1)</di
                                <div>COMP 122/L Computer Architecture and Assembly Language and Lab (1/1)</d
                                <div>COMP 182/L Data Structures and Program Design and Lab (3/1)</div>
                                <div>COMP 222 Computer Organization (3)</div>
                                <div>COMP 256/L Discrete Structures for Computer Science and Lab ( 3/1)</div
                                <div>COMP 282 Advanced Data Structures (3)</div>
                                <div>MATH 150A Calculus I (5)</div>
                                <div>MATH 150B Calculus II (5)</div>
                                <div>MATH 262 Introduction to Linear Algebra (3)</div>
                                <div>PHIL 230 Introduction to Formal Logic (3)</div>
                                <div style={redBoldStyle}>2. Lower Division Electives (12-14 units)</div>
                                <div style={subHeaderStyle}>a. Select one of the following science sequences
                                <div>BIOL 106/BIOL 106L Biological Principles I and Lab (3/1)</div>
                                <div>and BIOL 107/BIOL 107L Biological Principles II and Lab (3/1)*</div>
                                <div>CHEM 101/CHEM 101D/CHEM 101L General Chemistry I and Discussion and Lab
                                <div>and CHEM 102/CHEM 102D/CHEM 102L General Chemistry II and Discussion an
                                <div>PHYS 220A/PHYS 220AL Mechanics and Lab (3/1)</div>
                                <div>and PHYS 220B/PHYS 220BL Electricity and Magnetism and Lab (3/1)</div>
                                <div>*BIOL 107/L has recommended prerequisites of CHEM 101 and CHEM 101L.</d
                                <div style={subHeaderStyle}>b. Select an additional science course with corr
                                <div>BIOL 106/BIOL 106L Biological Principles I and Lab (3/1)</div>
                                <div>CHEM 101/CHEM 101D/CHEM 101L General Chemistry I and Discussion and Lab
                                <div>GEOG 101/GEOG 102 The Physical Environment and Lab (3/1)</div>
                                <div>GEOG 103/GEOG 105 Weather and Lab (3/1)</div>
                                <div>GEOL 101/GEOL 102 Geology of Planet Earth and Lab (3/1)</div>
                                <div>GEOL 110/GEOL 112 Earth and Life through Time and Lab (3/1)</div>
                                <div>PHYS 220A/PHYS 220AL Mechanics and Lab (3/1)</div>
                                <div style={redBoldStyle}>3. Upper Division Required Courses (24 units)</div
                                <div style={subHeaderStyle}>Before taking upper division courses in Computer
                                <div>COMP 310 Automata, Languages and Computation (3)</div>
                                <div>COMP 322/L Introduction to Operating Systems and System Architecture an
                                <div>COMP 333 Concepts of Programming Languages (3)</div>
                                <div>COMP 380/L Introduction to Software Engineering and Lab (2/1)</div>
                                <div>COMP 482 Algorithm Design and Analysis (3)</div>
                                <div>or MATH 482 Combinatorial Algorithms (3)</div>
                                <div>COMP 490/L Senior Design Project and Lab (3/1)</div>
                                <div>COMP 491L Senior Project Lab (1)</div>
                                <div style={subHeaderStyle}>Select one of the following:</div>
                                <div>MATH 340 Probability (3)</div>
```

App Demo

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Progress and Future Work

- Features
  - Add ability to make Accounts
    - Allow saving of planned schedules
    - Allow user to input already taken classes.
  - Automated planning feature using AI.
    - Will be based on user's academic preference and performance of previous classes
- Technical Stuffs
  - Implement frontend routing with NodeJS
    - For back and forward navigation between pages
- UI/UX
  - Make it pretty.

Questions?

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